



777-200LR

**TAKEOFF GROSS
WEIGHTS
FLAPS 5**

LIST OF EFFECTIVE PAGES

Rev 03 March 15, 2019

S. No.	Contents/Airport	IATA Code	ICAO Code	Runway	Page No.	Date
	LIST OF EFFECTIVE PAGES				i - iv	15-Mar-19
	AIRCONDITIONING & QNH CORRECTION				I	8-Feb-17
1	PEARSON INTL TORONTO	YYZ	CYYZ	05	1 - 2	8-Feb-17
				06L	3 - 4	8-Feb-17
				06R	5 - 6	8-Feb-17
				15L	7 - 8	8-Feb-17
				15R	9 - 10	8-Feb-17
				23	11 - 12	8-Feb-17
				24L	13 - 14	8-Feb-17
				24R	15 - 16	8-Feb-17
				33L	17 - 18	8-Feb-17
				33R	19 - 20	8-Feb-17
2	LEIPZIG	LEJ	EDDP	08L	21 - 22	8-Feb-17
				08R	23 - 24	8-Feb-17
				26L	25 - 26	8-Feb-17
				26R	27 - 28	8-Feb-17
3	BIRMINGHAM	BHX	EGBB	15	29 - 30	8-Feb-17
				33	31 - 32	8-Feb-17
4	MANCHESTER	MAN	EGCC	05L	33 - 34	23-Feb-17
				05R	35 - 36	23-Feb-17
				23L	37 - 38	23-Feb-17
				23L (A)	39 - 40	23-Feb-17
				23R	41 - 42	23-Feb-17
5	HEATHROW INTL LONDON	LHR	EGLL	09L	43 - 44	8-Feb-17
				09R	45 - 46	23-Feb-17
				27L	47 - 48	8-Feb-17
				27R	49 - 50	8-Feb-17
6	KASTRUP INTL COPENHAGEN	CPH	EKCH	04L	51 - 52	8-Feb-17
				04LS	53 - 54	8-Feb-17
				04R	55 - 56	8-Feb-17
				04RS	57 - 58	8-Feb-17
				12	59 - 60	8-Feb-17
				12S	61 - 62	8-Feb-17
				22L	63 - 64	8-Feb-17
				22R	65 - 66	8-Feb-17
				30	67 - 68	8-Feb-17
7	GARDERMOEN OSLO	OSL	ENGM	01L	69 - 70	23-Feb-17
				01R	71 - 72	8-Feb-17
				19L	73 - 74	23-Feb-17
				19R	75 - 76	8-Feb-17

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				13L	81 - 82	8-Feb-17
				13R	83 - 84	8-Feb-17
				22L	85 - 86	8-Feb-17
				22R	87 - 88	8-Feb-17
				31L	89 - 90	8-Feb-17
				31R	91 - 92	8-Feb-17
9	EL PRAT BARCELONA	BCN	LEBL	02	93 - 94	8-Feb-17
				07L	95 - 96	8-Feb-17
				07R	97 - 98	8-Feb-17
				20	99 - 100	8-Feb-17
				25L	101 - 102	8-Feb-17
				25R	103 - 104	8-Feb-17
10	CHARLES-DE-GAULLE INTL PARIS	CDG	LFPG	08L	105 - 106	8-Feb-17
				08LA	107 - 108	8-Feb-17
				08R	109 - 110	8-Feb-17
				09L	111 - 112	8-Feb-17
				09R	113 - 114	8-Feb-17
				09RA	115 - 116	8-Feb-17
				26L	117 - 118	8-Feb-17
				26R	119 - 120	8-Feb-17
				26RA	121 - 122	8-Feb-17
				27L	123 - 124	8-Feb-17
				27LA	125 - 126	8-Feb-17
				27R	127 - 128	8-Feb-17
11	MALPENSA INTL MILAN	MXP	LIMC	17L	129 - 130	8-Feb-17
				17R	131 - 132	8-Feb-17
				35L	133 - 134	8-Feb-17
				35R	135 - 136	8-Feb-17
12	KING FAHD INTL DAMMAM	DMM	OEDF	16L	137 - 138	8-Feb-17
				16R	139 - 140	8-Feb-17
				34L	141 - 142	8-Feb-17
				34R	143 - 144	8-Feb-17
13	KING ABDULAZIZ INTL JEDDAH	JED	OEJN	16C	145 - 146	8-Feb-17
				16L	147 - 148	8-Feb-17
				16R	149 - 150	8-Feb-17
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				36	163 - 164	8-Feb-17
15	KING KHALID INTL RIYADH	RUH	OERK	15L	165 - 166	8-Feb-17
				15R	167 - 168	8-Feb-17
				33L	169 - 170	8-Feb-17
				33R	171 - 172	8-Feb-17
16	KARACHI	KHI	OPKC	07L	173 - 174	8-Feb-17
				07R	175 - 176	8-Feb-17
				07RC	177 - 178	8-Feb-17
				25L	179 - 180	8-Feb-17
				25LF	181 - 182	8-Feb-17
				25R	183 - 184	8-Feb-17
17	LAHORE	LHE	OPLA	18L	185 - 186	8-Feb-17
				18LU	187 - 188	8-Feb-17
				18R	189 - 190	8-Feb-17
				36L	191 - 192	8-Feb-17
				36R	193 - 194	8-Feb-17
				36RT	195 - 196	8-Feb-17
18	MULTAN	MUX	OPMT	18	197 - 198	8-Feb-17
				36	199 - 200	8-Feb-17
19	PESHAWAR	PEW	OPPS	17	201 - 202	8-Feb-17
				35	203 - 204	8-Feb-17
20	ISLAMABAD	ISB	OPRN	12	205 - 206	8-Feb-17
				30	207 - 208	8-Feb-17
				30A	209 - 210	8-Feb-17
21	SIALKOT	SKT	OPST	04	211 - 212	8-Feb-17
				22	213 - 214	8-Feb-17
22	NARITA TOKYO	NRT	RJAA	16L	215 - 216	8-Feb-17
				16R	217 - 218	8-Feb-17
				34L	219 - 220	8-Feb-17
				34R	221 - 222	8-Feb-17
23	SEPANG INTL KUALA LAMPUR	KUL	WMKK	14L	223 - 224	8-Feb-17
				14LA2	225 - 226	8-Feb-17
				14LA3	227 - 228	8-Feb-17
				14LA4	229 - 230	8-Feb-17
				14LA5	231 - 232	8-Feb-17
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LIST OF EFFECTIVE PAGES

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				14RP2	245 - 246	8-Feb-17
				14RP3	247 - 248	8-Feb-17
				14RP4	249 - 250	8-Feb-17
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				15Y2	255 - 256	8-Feb-17
				15Y3	257 - 258	8-Feb-17
				15Y4	259 - 260	8-Feb-17
				15Y5	261 - 262	8-Feb-17
				32L	263 - 264	8-Feb-17
				32LC7	265 - 266	8-Feb-17
				32LC8	267 - 268	8-Feb-17
				32LC9	269 - 270	8-Feb-17
				32LC10	271 - 272	8-Feb-17
				32R	273 - 274	8-Feb-17
				32RA6	275 - 276	8-Feb-17
				32RA7	277 - 278	8-Feb-17
				32RA8	279 - 280	8-Feb-17
				32RA9	281 - 282	8-Feb-17
				32RA10	283 - 284	8-Feb-17
				33	285 - 286	8-Feb-17
				33Y6	287 - 288	8-Feb-17
				33Y7	289 - 290	8-Feb-17
				33Y8	291 - 292	8-Feb-17
				33Y9	293 - 294	8-Feb-17
24	BEIJING CAPITAL BEIJING	PEK	ZBAA	01	295 - 296	8-Feb-17
				18L	297 - 298	8-Feb-17
				18R	299 - 300	8-Feb-17
				19	301 - 302	8-Feb-17
				36L	303 - 304	8-Feb-17
				36R	305 - 306	8-Feb-17
25	ISLAMABAD (NEW AIRPORT)	ISB	OPIS	10L	307 - 308	25-Apr-18
				10R	309 - 310	25-Apr-18
				28L	311 - 312	25-Apr-18
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777 TOGW

LIST OF EFFECTIVE PAGES

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				12R	317 - 318	15-Mar-19
				30L	319 - 320	15-Mar-19
				30R	321 - 322	15-Mar-19



777-240LR TAKEOFF GROSS WEIGHT CORRECTIONS

FLAPS 5

AIR CONDITIONING PACKS

TOGW analysis is based on AC Packs OFF. If one or more AC Packs using Engine Bleed are kept ON for takeoff, corresponding limits are reduced by the following:

AC PACKS ON	
CLIMB LIMIT	FIELD LIMIT
1850KGS	500KGS

QNH CORRECTIONS

TOGW analysis is based on Field Elevation. If the QNH for the departure field is 1013mb, the analysis holds good. If QNH is above 1013mb, the Performance Limited TOGW (Box A) may be increased. If QNH is below 1013mb, the Performance Limited TOGW (Box A) must be decreased to account for increase in pressure altitude above field elevation.

Addition or Deduction applicable for each 'mb' above or below 1013 is as under:

FOR EACH 'mb' ABOVE 1013 (QNH)	
FIELD LENGTH LIMIT FLAPS 5	ZERO
CLIMB LIMIT FLAPS 5	+95KG
IMPROVED CLIMB FLAPS 5	ZERO

ii)

FOR EACH 'mb' BELOW 1013 (QNH)	
FIELD LENGTH LIMIT FLAPS 5	-610KG
CLIMB LIMIT FLAPS 5	-415KG
IMPROVED CLIMB FLAPS 5	-610KG

INTENTIONALLY LEFT BLANK

ELEVATION 569 FT

RUNWAY 05

CYYZ

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

60A	2654	2487*/53-54-57	2620*/59-59-61	2656*/60-60-62	2687*/60-60-62
				2660**61-61-63	2688**64-65-66
58A	2711	2527*/54-55-59	2666*/60-60-63	2709*/62-62-64	2737*/62-62-64
					2738**65-66-67
56A	2777	2573*/55-57-60	2718*/62-62-64	2762*/63-63-65	2793*/63-64-66
					2796**66-66-68
54A	2842	2616*/55-58-62	2769*/63-63-66	2815*/65-65-67	2847*/64-66-68
					2854**67-67-69
52	2914	2660*/56-59-63	2819*/63-65-67	2871*/66-66-69	2914*/67-68-70
					2916**68-68-70
50	2988	2705*/56-60-64	2868*/64-66-69	2922*/66-68-70	2976*/69-70-72
48	3068	2752*/56-62-66	2918*/64-67-70	2974*/67-69-72	3030*/69-71-73
46	3145	2795*/57-63-67	2965*/65-68-72	3023*/67-70-73	3080*/70-72-75
44	3220	2837*/57-64-68	3009*/65-70-73	3069*/68-71-75	3128*/70-73-76
42	3291	2877*/57-65-70	3053*/65-71-74	3113*/68-73-76	3174*/71-75-77
40	3364	2918*/58-66-71	3097*/66-72-76	3158*/68-74-77	3220*/71-76-79
38	3438	2955*/58-67-72	3137*/66-73-77	3199*/69-75-78	3262*/72-77-80
36	3510	2994*/58-68-73	3178*/66-74-78	3241*/69-76-80	3306*/72-78-81
34	3571	3028*/58-69-74	3214*/67-75-79	3278*/69-77-81	3346*/72-79-82
32	3634	3060*/59-69-75	3249*/67-75-80	3316*/70-77-82	3385*/72-79-83
30	3637	3069*/59-70-75	3259*/67-76-80	3326*/70-78-82	3395*/73-80-83
28	3638	3077*/59-70-76	3268*/68-76-80	3336*/70-78-82	3405*/73-80-84
26	3639	3085*/59-70-76	3276*/68-76-81	3345*/71-78-82	3417*/73-80-84
24	3639	3093*/60-70-76	3285*/68-77-81	3354*/71-78-82	3434*/74-80-84
22	3640	3101*/60-71-76	3295*/69-77-81	3364*/71-79-83	3450*/74-80-84
20	3640	3110*/60-71-76	3304*/69-77-81	3373*/72-79-83	3467*/74-80-84
18	3641	3118*/61-71-77	3313*/69-77-81	3382*/72-79-83	3485*/74-80-84
16	3642	3126*/61-71-77	3322*/70-78-82	3392*/73-80-83	3495*/75-81-84
14	3642	3134*/61-72-77	3332*/70-78-82	3402*/73-80-83	3504*/75-81-84
12	3643	3143*/62-72-77	3341*/70-78-82	3412*/73-80-84	3514*/75-81-84
10	3644	3152*/62-72-78	3351*/71-78-82	3429*/73-80-84	3523*/76-81-84
8	3644	3160*/63-73-78	3361*/71-79-83	3446*/74-80-84	3533*/76-82-85
6	3645	3169*/63-73-78	3371*/72-79-83	3463*/74-80-84	3543*/77-82-85
4	3645	3178*/63-73-78	3380*/72-79-83	3481*/74-80-84	3552*/77-82-85
2	3645	3186*/64-73-78	3390*/72-79-83	3493*/74-81-84	3562*/77-83-85
0	3646	3195*/64-74-79	3400*/73-80-83	3502*/75-81-84	3571*/78-83-86
-2	3646	3204*/64-74-79	3410*/73-80-84	3512*/75-81-84	3581*/78-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3284 M LONG WITH 201 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05	5	201	0	18	221	0	25	282	0
	28	312	0	33	419	0	35	471	0
	36	501	0	50	738	0	243	17095	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 05

CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-4	3646	3213*/65-74-79	3426*/73-80-84	3522*/76-81-84	3591*/79-84-86
-6	3646	3222*/65-74-79	3442*/74-80-84	3531*/76-82-85	3600*/79-84-86
-8	3646	3231*/65-75-80	3459*/74-80-84	3541*/77-82-85	3610*/80-84-87
-10	3646	3240*/66-75-80	3476*/74-80-84	3550*/77-82-85	3620*/80-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

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RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05	5	201	0	18	221	0	25	282	0
	28	312	0	33	419	0	35	471	0
	36	501	0	50	738	0	243	17095	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 06L

CYYZ

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2654	2377*/46-50-54	2508*/55-55-58	2541*/56-56-59	2573*/57-57-60
				2544**58-58-61	2579**60-60-63
58A	2711	2415*/47-51-55	2555*/56-56-60	2591*/58-58-61	2624*/59-59-61
				2593**59-59-62	2627**61-61-63
56A	2777	2458*/48-53-57	2607*/57-58-61	2648*/59-59-62	2681*/61-61-63
					2683**62-62-64
54A	2842	2501*/49-54-58	2658*/58-59-63	2702*/61-61-64	2737*/62-62-65
					2739**63-63-66
52	2914	2546*/50-55-60	2711*/58-61-64	2755*/61-62-66	2798*/64-64-67
50	2988	2593*/51-56-61	2761*/59-62-66	2809*/61-64-67	2855*/64-65-68
48	3068	2641*/51-58-63	2809*/59-64-67	2865*/62-65-69	2913*/65-67-70
46	3145	2682*/52-59-64	2853*/59-65-69	2911*/62-67-70	2967*/65-68-72
44	3220	2721*/52-60-65	2895*/60-66-70	2955*/63-68-72	3015*/65-70-73
42	3291	2760*/52-61-67	2937*/60-67-71	2997*/63-69-73	3058*/66-71-74
40	3364	2799*/53-62-68	2978*/61-68-72	3040*/63-70-74	3102*/66-72-76
38	3438	2834*/53-63-69	3016*/61-69-74	3078*/64-71-75	3142*/66-73-77
36	3510	2871*/53-64-70	3055*/61-70-75	3118*/64-72-76	3183*/67-74-78
34	3571	2903*/54-64-71	3089*/62-71-76	3153*/65-73-77	3219*/67-75-79
32	3634	2934*/54-65-72	3122*/62-71-77	3187*/65-73-78	3254*/68-76-80
30	3637	2942*/54-65-72	3132*/62-72-77	3197*/65-74-79	3264*/68-76-80
28	3638	2950*/54-66-72	3140*/63-72-77	3206*/65-74-79	3273*/68-76-81
26	3639	2958*/55-66-73	3149*/63-72-77	3215*/66-74-79	3282*/69-76-81
24	3639	2966*/55-66-73	3158*/63-72-78	3224*/66-75-79	3292*/69-77-81
22	3640	2974*/55-66-73	3166*/64-73-78	3233*/67-75-80	3301*/69-77-81
20	3640	2982*/56-67-73	3175*/64-73-78	3242*/67-75-80	3311*/70-77-81
18	3641	2990*/56-67-73	3184*/64-73-78	3251*/67-75-80	3321*/70-78-82
16	3642	2998*/56-67-74	3193*/65-74-79	3260*/68-76-80	3331*/70-78-82
14	3642	3007*/57-67-74	3202*/65-74-79	3269*/68-76-80	3340*/71-78-82
12	3643	3015*/57-68-74	3211*/65-74-79	3279*/68-76-81	3350*/71-78-82
10	3644	3023*/57-68-74	3220*/66-74-79	3289*/69-77-81	3360*/71-79-83
8	3644	3032*/58-68-74	3230*/66-75-80	3299*/69-77-81	3371*/72-79-83
6	3645	3041*/58-69-75	3239*/67-75-80	3309*/69-77-81	3381*/72-79-83
4	3645	3049*/58-69-75	3248*/67-75-80	3319*/70-77-82	3391*/73-80-83
2	3645	3058*/59-69-75	3258*/67-76-80	3328*/70-78-82	3401*/73-80-83
0	3646	3066*/59-69-75	3267*/68-76-80	3338*/71-78-82	3411*/73-80-84
-2	3646	3075*/59-70-76	3277*/68-76-81	3348*/71-78-82	3426*/74-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 660 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2956 M LONG WITH 240 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.18 PERCENT FOR TODA AND 0.18 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
06L	1	240	0	10	277	0	18	290	0
	21	326	0	24	361	0	67	1120	0
	75	1135	0	96	1484	0	111	1487	0
	122	1793	0	137	2159	0	435	18917	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 06L CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-4	3646	3084*/60-70-76	3286*/68-77-81	3358*/71-79-83	3437*/74-80-84
-6	3646	3093*/60-70-76	3296*/69-77-81	3368*/72-79-83	3449*/74-80-84
-8	3646	3102*/60-71-76	3306*/69-77-81	3378*/72-79-83	3460*/75-80-84
-10	3646	3111*/61-71-76	3316*/70-77-82	3389*/72-79-83	3470*/75-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 660 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2956 M LONG WITH 240 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.18 PERCENT FOR TODA AND 0.18 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
06L	1	240	0	10	277	0	18	290	0
	21	326	0	24	361	0	67	1120	0
	75	1135	0	96	1484	0	111	1487	0
	122	1793	0	137	2159	0	435	18917	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 06R

CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2654	2315*/41-48-52	2477*/50-54-57	2533*/53-56-59	2583*/56-58-60
58A	2711	2350*/42-49-54	2516*/51-55-58	2572*/54-57-60	2628*/56-59-62
56A	2777	2392*/43-50-55	2560*/52-56-60	2617*/55-58-61	2675*/57-60-63
54A	2842	2433*/44-51-56	2603*/53-58-61	2662*/55-60-63	2720*/58-62-64
52	2914	2477*/45-53-58	2650*/53-59-63	2710*/56-61-64	2767*/59-63-66
50	2988	2522*/46-54-59	2699*/54-60-64	2757*/57-62-66	2815*/60-64-67
48	3068	2570*/46-55-61	2747*/55-61-66	2804*/58-63-67	2863*/60-65-69
46	3145	2614*/47-56-62	2789*/56-62-67	2848*/58-64-69	2908*/61-66-70
44	3220	2657*/48-57-64	2831*/56-64-68	2890*/59-66-70	2951*/61-68-71
42	3291	2696*/49-58-65	2871*/56-65-70	2931*/59-67-71	2993*/62-69-73
40	3364	2734*/49-59-66	2911*/57-66-71	2973*/60-68-72	3035*/62-70-74
38	3438	2769*/49-60-67	2948*/57-66-72	3011*/60-69-73	3073*/63-71-75
36	3510	2805*/49-61-68	2986*/58-67-73	3050*/60-70-75	3113*/63-72-76
34	3571	2836*/50-62-69	3020*/58-68-74	3084*/61-70-76	3149*/63-72-77
32	3634	2866F/50-63-70	3053*/58-69-75	3117*/61-71-77	3183*/64-73-78
30	3637	2875F/50-63-70	3062*/58-69-75	3127*/61-71-77	3193*/64-74-79
28	3638	2883F/50-63-71	3070*/59-70-75	3136*/62-72-77	3202*/64-74-79
26	3639	2890*/51-64-71	3079*/59-70-76	3144*/62-72-77	3211*/65-74-79
24	3639	2898*/51-64-71	3087*/59-70-76	3153*/62-72-78	3220*/65-74-79
22	3640	2906*/51-64-71	3096*/60-70-76	3162*/63-73-78	3229*/65-75-79
20	3640	2914*/52-64-71	3105*/60-71-76	3171*/63-73-78	3238*/66-75-80
18	3641	2922*/52-65-72	3113*/60-71-77	3180*/63-73-78	3247*/66-75-80
16	3642	2930*/52-65-72	3122*/61-71-77	3189*/64-73-78	3256*/67-76-80
14	3642	2938*/53-65-72	3131*/61-72-77	3198*/64-74-79	3266*/67-76-80
12	3643	2946*/53-65-72	3140*/61-72-77	3207*/64-74-79	3275*/67-76-81
10	3644	2954*/53-66-72	3149*/62-72-77	3217*/65-74-79	3285*/68-76-81
8	3644	2963*/54-66-73	3158*/62-72-78	3226*/65-75-79	3295*/68-77-81
6	3645	2971*/54-66-73	3168*/63-73-78	3235*/65-75-80	3306*/68-77-81
4	3645	2980*/54-67-73	3177*/63-73-78	3245*/66-75-80	3316*/69-77-82
2	3645	2988*/55-67-73	3186*/63-73-78	3254*/66-76-80	3326*/69-78-82
0	3646	2996*/55-67-74	3195*/64-74-79	3264*/67-76-80	3336*/69-78-82
-2	3646	3005*/55-67-74	3205*/64-74-79	3273*/67-76-81	3347*/70-78-82
-4	3646	3013*/56-68-74	3214*/64-74-79	3283*/67-76-81	3357*/70-79-82
-6	3646	3022*/56-68-74	3223*/65-75-79	3293*/68-77-81	3368*/71-79-83
-8	3646	3031*/56-68-74	3233*/65-75-80	3304*/68-77-81	3378*/71-79-83
-10	3646	3040*/57-69-75	3242*/65-75-80	3314*/68-77-82	3389*/71-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 670 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.24 PERCENT FOR TODA AND 0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
06R	8	367	0	18	396	0	22	457	0
	26	527	0	112	1814	0	120	1987	0
	140	2481	0	434	19251	0			

ENG-OUT PROCEDURE:

NONE

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ELEVATION 569 FT

RUNWAY 15L

CYYZ

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2654	2524*/53-56-59	2623*/59-59-61	2652*/60-60-62	2677*/60-60-62
			2630**62-64-65	2662**65-67-68	2695**67-69-70
58A	2711	2569*/54-57-60	2674*/61-61-63	2704*/62-62-64	2729*/61-62-64
			2679**63-64-66	2712**65-67-68	2745**68-70-71
56A	2777	2620*/54-58-62	2733*/62-62-65	2763*/63-63-65	2788*/63-64-66
			2735**63-64-66	2769**66-68-69	2802**68-70-71
54A	2842	2669*/55-60-63	2790*/63-64-66	2822*/65-65-67	2847*/64-66-68
				2826**66-67-69	2861**69-71-72
52	2914	2720*/55-61-65	2847*/63-66-68	2886*/66-67-69	2914*/66-68-70
					2923**69-71-72
50	2988	2772*/55-63-66	2904*/64-67-70	2946*/67-69-71	2985*/70-70-72
					2986**70-71-73
48	3068	2827*/55-64-68	2964*/64-69-71	3008*/67-70-73	3050*/70-72-74
46	3145	2878*/55-65-69	3019*/64-70-73	3065*/67-72-74	3110*/70-73-75
44	3220	2925*/55-67-71	3073*/64-72-75	3121*/67-73-76	3167*/70-75-77
42	3291	2965F/56-68-72	3124*/64-73-76	3173*/67-74-77	3221*/70-76-79
40	3364	3005F/56-69-73	3175*/64-74-78	3226*/68-76-79	3275*/71-77-80
38	3438	3041F/56-70-74	3222*/65-75-79	3274*/68-77-80	3327*/71-79-81
36	3510	3079F/57-70-75	3269*/65-77-80	3325*/68-78-82	3380*/71-80-83
34	3571	3112F/57-71-76	3311*/65-78-81	3370*/68-79-83	3435*/71-81-83
32	3634	3144F/57-72-77	3349F/65-78-82	3416*/68-80-84	3498*/71-81-84
30	3637	3154F/57-72-78	3360F/66-79-83	3431*/68-80-84	3506*/71-81-84
28	3638	3163F/58-73-78	3370F/66-79-83	3442*/69-80-84	3513*/71-81-84
26	3639	3172F/58-73-78	3378*/66-79-83	3453*/69-80-84	3519*/72-81-84
24	3639	3181F/58-73-78	3386*/67-79-83	3464*/69-80-84	3526*/72-82-84
22	3640	3190F/59-73-78	3394*/67-80-83	3474*/70-80-84	3533*/73-82-85
20	3640	3199F/59-74-79	3402*/67-80-83	3484*/70-80-84	3539*/73-82-85
18	3641	3208F/59-74-79	3409*/68-80-84	3492*/70-81-84	3546*/74-82-85
16	3642	3218F/60-74-79	3419*/68-80-84	3498*/71-81-84	3553*/74-82-85
14	3642	3227F/60-75-79	3430*/68-80-84	3505*/71-81-84	3559*/75-83-85
12	3643	3237F/60-75-80	3441*/69-80-84	3512*/72-81-84	3566*/75-83-85
10	3644	3246F/60-75-80	3452*/69-80-84	3519*/72-81-84	3573*/75-83-86
8	3644	3256F/61-76-80	3463*/69-80-84	3526*/73-82-84	3580*/76-83-86
6	3645	3266F/61-76-80	3473*/70-80-84	3532*/73-82-85	3586*/76-83-86
4	3645	3276F/61-76-81	3483*/70-80-84	3539*/74-82-85	3593*/77-84-86
2	3645	3286F/62-77-81	3491*/71-80-84	3546*/74-82-85	3599*/77-84-86
0	3646	3296F/62-77-81	3497*/71-81-84	3552*/75-82-85	3606*/78-84-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3318 M LONG WITH 350 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15L	28	879	0	44	1047	0	46	1100	0
	62	1173	0	65	1199	0	79	1504	0
	112	1828	0	123	1975	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 15L CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-2	3646	3305*/62-77-81	3504*/72-81-84	3559*/75-83-85	3612*/78-84-87
-4	3646	3313*/63-77-82	3511*/72-81-84	3565*/75-83-85	3618*/79-84-87
-6	3646	3321*/63-78-82	3517*/73-81-84	3571*/76-83-86	3624*/79-85-87
-8	3646	3328*/64-78-82	3524*/73-81-84	3578*/77-83-86	3631*/80-85-87
-10	3646	3335*/64-78-82	3530*/74-82-85	3584*/77-83-86	3637*/81-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3318 M LONG WITH 350 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15L	28	879	0	44	1047	0	46	1100	0
	62	1173	0	65	1199	0	79	1504	0
	112	1828	0	123	1975	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 569 FT

RUNWAY 15R

CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2654	2335*/42-49-53	2502*/51-55-58	2560*/54-57-60	2614*/56-59-61
58A	2711	2371*/43-50-54	2540*/52-56-59	2599*/54-58-61	2657*/57-60-62
56A	2777	2412*/44-51-56	2584*/52-57-61	2643*/55-59-62	2703*/58-61-64
54A	2842	2453*/45-52-57	2628*/53-58-62	2688*/56-60-64	2748*/59-63-65
52	2914	2497*/45-53-58	2674*/54-60-63	2735*/57-62-65	2793*/60-64-67
50	2988	2542*/46-55-60	2722*/55-61-65	2780*/58-63-66	2839*/60-65-68
48	3068	2590*/47-56-61	2767*/56-62-66	2826*/58-64-68	2886*/61-66-69
46	3145	2634*/48-57-63	2810*/56-63-68	2869*/59-65-69	2930*/61-67-71
44	3220	2674*/49-58-64	2850*/57-64-69	2911*/59-66-70	2973*/62-68-72
42	3291	2712*/49-59-65	2890*/57-65-70	2952*/60-67-72	3015*/62-69-73
40	3364	2750*/49-60-66	2931*/57-66-71	2993*/60-68-73	3057*/63-70-75
38	3438	2784*/50-61-67	2967*/58-67-72	3030*/60-69-74	3095*/63-71-76
36	3510	2820*/50-62-69	3005*/58-68-73	3069*/61-70-75	3135*/64-72-77
34	3571	2852*/50-63-70	3039*/58-69-74	3104*/61-71-76	3170*/64-73-78
32	3634	2882*/50-63-70	3071*/59-70-75	3137*/61-72-77	3204*/64-74-79
30	3637	2890*/51-64-71	3081*/59-70-76	3147*/62-72-77	3214*/65-74-79
28	3638	2898*/51-64-71	3089*/59-70-76	3155*/62-72-78	3223*/65-75-79
26	3639	2906*/51-64-71	3098*/60-71-76	3164*/62-73-78	3232*/65-75-80
24	3639	2914*/52-64-71	3106*/60-71-76	3173*/63-73-78	3242*/66-75-80
22	3640	2922*/52-65-72	3115*/60-71-77	3182*/63-73-78	3251*/66-75-80
20	3640	2930*/52-65-72	3124*/61-71-77	3192*/63-74-79	3261*/66-76-80
18	3641	2938*/52-65-72	3133*/61-72-77	3201*/64-74-79	3270*/67-76-81
16	3642	2946*/53-65-72	3142*/61-72-77	3210*/64-74-79	3280*/67-76-81
14	3642	2955*/53-66-72	3151*/62-72-78	3220*/64-74-79	3290*/67-77-81
12	3643	2963*/53-66-73	3160*/62-73-78	3229*/65-75-79	3300*/68-77-81
10	3644	2972*/54-66-73	3170*/62-73-78	3239*/65-75-80	3310*/68-77-81
8	3644	2980*/54-67-73	3179*/63-73-78	3249*/65-75-80	3321*/68-78-82
6	3645	2989*/54-67-73	3189*/63-73-78	3258*/66-76-80	3331*/69-78-82
4	3645	2997*/55-67-74	3198*/63-74-79	3268*/66-76-80	3342*/69-78-82
2	3645	3006*/55-67-74	3208*/64-74-79	3278*/67-76-81	3352*/69-78-82
0	3646	3015*/55-68-74	3217*/64-74-79	3288*/67-77-81	3363*/70-79-83
-2	3646	3024*/56-68-74	3227*/64-75-79	3298*/67-77-81	3373*/70-79-83
-4	3646	3033*/56-68-74	3237*/65-75-80	3309*/68-77-81	3384*/71-79-83
-6	3646	3041*/56-69-75	3247*/65-75-80	3319*/68-77-82	3395*/71-80-83
-8	3646	3050*/57-69-75	3257*/65-76-80	3330*/68-78-82	3406*/71-80-84
-10	3646	3059*/57-69-75	3266*/66-76-80	3341*/69-78-82	3422*/72-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2770 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15R	12	325	0	31	991	0	41	1054	0
	87	1552	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 569 FT

RUNWAY 23

CYYZ

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2654	2519*/52-55-58	2623*/59-59-61	2647*/60-60-62	2668*/60-60-62
			2639**61-63-64	2673**64-66-67	2706**67-69-70
58A	2711	2561*/53-57-60	2678*/61-61-63	2702*/62-62-64	2723*/62-62-64
			2686**62-63-65	2721**65-66-68	2755**68-69-70
56A	2777	2609*/54-58-61	2738*/62-63-65	2763*/63-63-65	2785*/63-64-66
			2741**62-63-66	2775**65-67-68	2810**68-70-71
54A	2842	2653*/54-59-63	2794*/62-64-66	2825*/65-65-67	2846*/64-66-68
				2830**65-67-69	2866**68-70-72
52	2914	2699*/54-61-64	2848*/62-66-68	2888*/65-67-69	2914*/67-68-70
				2890**65-68-70	2926**68-71-73
50	2988	2746*/55-62-65	2900*/63-67-70	2950*/66-69-71	2984*/69-70-72
					2988**69-71-73
48	3068	2794*/55-63-67	2954*/63-68-71	3006*/66-70-73	3053*/69-72-74
46	3145	2839*/55-64-68	3004*/63-70-73	3058*/66-71-74	3111*/69-73-76
44	3220	2881*/56-65-70	3052*/64-71-74	3107*/67-73-76	3162*/69-74-77
42	3291	2922*/56-66-71	3097*/64-72-75	3155*/67-74-77	3211*/70-76-78
40	3364	2963*/56-67-72	3142*/64-73-77	3202*/67-75-78	3260*/70-77-80
38	3438	3000*/57-68-73	3184*/65-74-78	3244*/68-76-79	3306*/70-78-81
36	3510	3039*/57-69-74	3225*/65-75-79	3288*/68-77-81	3354*/71-79-82
34	3571	3073*/57-70-75	3262*/65-76-80	3329*/68-78-82	3395*/71-80-83
32	3634	3106*/57-71-76	3298*/66-77-81	3367*/68-79-83	3453*/71-80-84
30	3637	3115*/58-71-77	3309*/66-77-81	3378*/69-79-83	3471*/71-80-84
28	3638	3124*/58-71-77	3318*/66-77-82	3388*/69-79-83	3487*/71-80-84
26	3639	3132*/58-72-77	3327*/67-78-82	3397*/69-80-83	3496*/72-81-84
24	3639	3140*/59-72-77	3337*/67-78-82	3406*/70-80-84	3504*/72-81-84
22	3640	3149*/59-72-77	3346*/67-78-82	3418*/70-80-84	3513*/72-81-84
20	3640	3157*/59-72-78	3356*/68-79-82	3434*/70-80-84	3521*/73-81-84
18	3641	3166*/59-73-78	3366*/68-79-83	3449*/71-80-84	3529*/73-82-85
16	3642	3174*/60-73-78	3375*/68-79-83	3465*/71-80-84	3538*/74-82-85
14	3642	3183*/60-73-78	3384*/69-79-83	3481*/71-80-84	3546*/74-82-85
12	3643	3192*/60-74-79	3393*/69-80-83	3492*/71-81-84	3555*/74-82-85
10	3644	3201*/61-74-79	3403*/69-80-84	3500*/72-81-84	3564*/75-83-85
8	3644	3210*/61-74-79	3413*/70-80-84	3509*/72-81-84	3573*/75-83-86
6	3645	3219*/62-74-79	3429*/70-80-84	3518*/73-81-84	3581*/76-83-86
4	3645	3228*/62-75-79	3445*/70-80-84	3526*/73-82-84	3590*/76-84-86
2	3645	3237*/62-75-80	3460*/71-80-84	3535*/73-82-85	3599*/77-84-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1180 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3284 M LONG WITH 405 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23	17	413	0	29	599	0	34	639	0
	45	802	0	64	1135	0	131	2260	0
	148	2600	0	154	2702	0	227	3909	0
	762	16483	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 23

CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
0	3646	3246*/63-75-80	3475*/71-80-84	3543*/74-82-85	3607*/77-84-86
-2	3646	3255*/63-76-80	3488*/71-80-84	3552*/74-82-85	3616*/77-84-87
-4	3646	3264*/63-76-80	3497*/72-81-84	3561*/75-83-85	3622*/78-84-87
-6	3646	3273*/64-76-81	3505*/72-81-84	3569*/75-83-86	3626*/79-85-87
					3628**78-85-87
-8	3646	3283*/64-76-81	3514*/72-81-84	3578*/76-83-86	3630*/79-85-87
					3633**79-86-88
-10	3646	3292*/64-77-81	3522*/73-81-84	3586*/76-83-86	3634*/80-85-87
					3639**80-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1180 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3284 M LONG WITH 405 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23	17	413	0	29	599	0	34	639	0
	45	802	0	64	1135	0	131	2260	0
	148	2600	0	154	2702	0	227	3909	0
	762	16483	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 24L

CYYZ

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2654	2340F/41-49-53	2496*/49-55-58	2548*/52-57-59	2592*/56-58-60
					2594*/55-59-61
58A	2711	2375F/41-50-54	2536*/50-56-59	2589*/53-58-61	2642*/56-60-62
56A	2777	2414F/42-51-56	2583*/51-57-60	2637*/54-59-62	2691*/57-61-63
54A	2842	2454F/43-52-57	2629*/52-58-62	2684*/55-60-63	2739*/58-62-65
52	2914	2497F/44-53-58	2678*/53-60-63	2733*/56-62-65	2787*/59-64-66
50	2988	2542F/45-55-60	2728*/54-61-65	2782*/56-63-66	2837*/59-65-68
48	3068	2588F/46-56-61	2774F/54-62-66	2832*/57-64-68	2887*/60-66-69
46	3145	2630F/47-57-63	2814F/55-63-68	2877F/57-65-69	2935*/60-67-71
44	3220	2671F/47-58-64	2853F/55-64-69	2917F/58-66-71	2981*/60-69-72
42	3291	2707F/48-59-65	2891F/55-65-70	2956F/58-67-72	3021F/61-70-73
40	3364	2744F/48-60-66	2931F/56-66-71	2996F/59-68-73	3062F/61-71-75
38	3438	2777F/48-61-67	2966F/56-67-72	3032F/59-69-74	3099F/62-71-76
36	3510	2812F/49-62-68	3003F/57-68-73	3069F/59-70-75	3137F/62-72-77
34	3571	2843F/49-62-69	3035F/57-69-74	3102F/60-71-76	3171F/62-73-78
32	3634	2871F/49-63-70	3066F/57-69-75	3134F/60-72-77	3204F/63-74-79
30	3637	2880F/49-63-70	3076F/58-70-76	3144F/60-72-77	3214F/63-74-79
28	3638	2888F/50-64-71	3085F/58-70-76	3154F/61-72-78	3224F/63-75-79
26	3639	2897F/50-64-71	3094F/58-70-76	3163F/61-73-78	3234F/64-75-80
24	3639	2905F/50-64-71	3103F/58-71-76	3173F/61-73-78	3243F/64-75-80
22	3640	2913F/50-64-71	3113F/59-71-77	3182F/62-73-78	3253F/64-76-80
20	3640	2922F/51-65-72	3122F/59-71-77	3192F/62-74-79	3263F/65-76-80
18	3641	2930F/51-65-72	3131F/59-72-77	3201F/62-74-79	3273F/65-76-81
16	3642	2939F/51-65-72	3141F/60-72-77	3211F/63-74-79	3284F/65-76-81
14	3642	2947F/52-65-72	3150F/60-72-77	3221F/63-74-79	3295F/66-77-81
12	3643	2956F/52-66-72	3160F/60-73-78	3231F/63-75-80	3306F/66-77-81
10	3644	2965F/52-66-73	3170F/61-73-78	3242F/64-75-80	3317F/66-77-82
8	3644	2974F/53-66-73	3180F/61-73-78	3252F/64-75-80	3328F/67-78-82
6	3645	2983F/53-67-73	3190F/61-73-78	3262F/64-76-80	3339F/67-78-82
4	3645	2992F/53-67-73	3200F/62-74-79	3273F/65-76-81	3350F/67-78-82
2	3645	3001F/54-67-74	3210F/62-74-79	3283F/65-76-81	3361F/68-79-83
0	3646	3010F/54-68-74	3220F/62-74-79	3294F/65-77-81	3372*/68-79-83
-2	3646	3019F/54-68-74	3230F/63-75-80	3306F/66-77-81	3381*/69-79-83
-4	3646	3029F/54-68-74	3241F/63-75-80	3317F/66-77-82	3391*/69-80-83
-6	3646	3038F/55-69-75	3251F/63-75-80	3328F/66-78-82	3400*/69-80-83
-8	3646	3048F/55-69-75	3262F/64-76-80	3339F/67-78-82	3410*/70-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2712 M LONG WITH 331 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.25 PERCENT FOR TODA AND -0.25 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
24L	28	757	0	41	805	0	42	827	0
	87	1832	0	129	2890	0	139	3000	0
	172	3228	0	175	3300	0	183	3433	0
	261	4091	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 24L CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PEARSON INTL
TORONTO
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-10 3646 3057F/55-69-75 3272F/64-76-81 3349*/67-78-82 3426*/70-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2712 M LONG WITH 331 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.25 PERCENT FOR TODA AND -0.25 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
24L	28	757	0	41	805	0	42	827	0
	87	1832	0	129	2890	0	139	3000	0
	172	3228	0	175	3300	0	183	3433	0
	261	4091	0						

ENG-OUT PROCEDURE:

NONE

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PEARSON INTL
TORONTO
777-200LR GE90-110B1L DATED 08-FEB-2017

777-200LR		GE90-110B1L		DATED 08-FEB-2017	
A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE					
OAT	CLIMB	WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)			
C	100KG	-10	0	10	20
60A	2654	2427*/45-52-56	2553*/54-57-59	2588*/57-58-60	2618*/59-59-61
				2590**57-59-62	2626**60-62-64
58A	2711	2464*/46-53-57	2601*/55-58-61	2638*/58-59-62	2670*/61-61-63
					2674**61-63-65
56A	2777	2506*/46-54-58	2656*/55-60-63	2694*/59-61-64	2729*/62-62-65
					2730**62-63-65
54A	2842	2548*/47-56-60	2709*/56-61-64	2747*/59-63-65	2784*/62-64-66
52	2914	2594*/48-57-61	2763*/56-63-66	2803*/59-64-67	2842*/62-65-68
50	2988	2641*/49-58-63	2813*/57-64-67	2861*/60-66-69	2901*/63-67-70
48	3068	2685*/50-59-64	2859*/57-65-69	2920*/60-67-70	2964*/63-69-71
46	3145	2725F/50-60-65	2902*/58-66-70	2964*/60-68-72	3022*/63-70-73
44	3220	2763F/50-61-66	2944*/58-67-71	3006*/61-69-73	3070*/63-71-75
42	3291	2800F/51-62-68	2985*/59-68-73	3048*/61-70-74	3112*/64-73-76
40	3364	2839F/51-63-69	3025*/59-69-74	3090*/62-71-75	3155*/64-74-77
38	3438	2873F/51-64-70	3064F/59-70-75	3128*/62-72-77	3194*/65-75-78
36	3510	2909F/52-65-71	3102F/60-71-76	3168*/62-73-78	3235*/65-76-79
34	3571	2940F/52-66-72	3135F/60-72-77	3203F/63-74-79	3271*/65-76-80
32	3634	2970F/52-66-73	3167F/60-73-78	3236F/63-75-80	3307*/66-77-81
30	3637	2979F/52-67-73	3178F/61-73-78	3247F/63-75-80	3318*/66-77-82
28	3638	2988F/53-67-73	3187F/61-73-78	3256F/64-76-80	3328*/66-78-82
26	3639	2996F/53-67-74	3196F/61-74-79	3266F/64-76-80	3338*/67-78-82
24	3639	3005F/53-67-74	3206F/62-74-79	3276F/64-76-81	3348*/67-78-82
22	3640	3013F/54-68-74	3215F/62-74-79	3286F/65-77-81	3358*/67-79-83
20	3640	3022F/54-68-74	3225F/62-75-79	3296*/65-77-81	3369*/68-79-83
18	3641	3031F/54-68-74	3234F/62-75-80	3306*/65-77-81	3379*/68-79-83
16	3642	3040F/54-69-75	3244F/63-75-80	3316*/66-77-82	3389*/68-79-83
14	3642	3049F/55-69-75	3254F/63-76-80	3326*/66-78-82	3400*/69-80-83
12	3643	3058F/55-69-75	3264F/63-76-80	3336*/66-78-82	3411*/69-80-84
10	3644	3067F/55-69-75	3274*/64-76-81	3347*/67-78-82	3431*/69-80-84
8	3644	3076F/56-70-76	3284*/64-76-81	3358*/67-79-82	3451*/69-80-84
6	3645	3085F/56-70-76	3294*/65-77-81	3368*/67-79-83	3472*/70-80-84
4	3645	3095F/56-70-76	3305*/65-77-81	3379*/68-79-83	3490*/70-80-84
2	3645	3104F/57-71-76	3315*/65-77-82	3390*/68-79-83	3499*/70-81-84
0	3646	3114F/57-71-77	3326*/66-78-82	3400*/68-80-83	3504*/71-81-84
-2	3646	3123F/57-71-77	3336*/66-78-82	3412*/69-80-84	3510*/71-81-84
-4	3646	3133F/58-72-77	3347*/66-78-82	3432*/69-80-84	3516*/72-81-84
-6	3646	3142F/58-72-77	3357*/67-79-82	3452*/69-80-84	3521*/72-81-84

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MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF          340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS    410 FT
LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
               *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB
RUNWAY IS 2923 M LONG WITH 333 M OF CLEARWAY AND          0 M OF STOPWAY
RUNWAY SLOPES ARE -0.18 PERCENT FOR TODA AND -0.18 PERCENT FOR ASDA
LINE-UP DISTANCES:    23 M FOR TODA,    49 M FOR ASDA    OBS FROM LO-FT/M
RUNWAY      HT      DIST  OFFSET      HT      DIST  OFFSET      HT      DIST  OFFSET
24R          3      342      0         5      360      0         45      1244      0
          69      1741      0         85      1960      0         182      2835      0
          258      4149      0        262      4171      0         270      6308      0
ENG-OUT PROCEDURE:
NONE

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ELEVATION 569 FT

RUNWAY 24R CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-8	3646	3152F/58-72-78	3368*/67-79-83	3472*/69-80-84	3527*/73-82-85
-10	3646	3162F/59-73-78	3379*/67-79-83	3480*/70-80-84	3533*/73-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2923 M LONG WITH 333 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.18 PERCENT FOR TODA AND -0.18 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
24R	3	342	0	5	360	0	45	1244	0
	69	1741	0	85	1960	0	182	2835	0
	258	4149	0	262	4171	0	270	6308	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 33L CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT	CLIMB	WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)			
C	100KG	-10	0	10	20

60A	2654	2295*/43-47-52	2443*/52-53-56	2490*/54-54-58	2529*/56-56-59
58A	2711	2333*/43-48-53	2483*/52-54-57	2532*/55-56-59	2575*/57-57-60
56A	2777	2376*/44-50-54	2530*/53-55-59	2581*/56-57-60	2628*/59-59-62
54A	2842	2419*/45-51-56	2576*/54-57-60	2629*/57-58-62	2680*/60-60-63
52	2914	2465*/46-52-57	2625*/55-58-62	2679*/58-60-63	2732*/61-62-65
50	2988	2512*/47-53-59	2676*/56-59-64	2731*/59-61-65	2783*/61-63-66
48	3068	2562*/48-55-61	2728*/57-61-65	2781*/59-63-67	2834*/62-64-68
46	3145	2608*/48-56-62	2773*/57-62-67	2827*/60-64-68	2882*/62-66-69
44	3220	2653*/49-57-63	2816*/57-63-68	2872*/60-65-69	2928*/63-67-71
42	3291	2693*/49-58-65	2859*/58-64-69	2916*/60-66-71	2973*/63-68-72
40	3364	2733*/50-59-66	2901*/58-65-70	2959*/61-67-72	3018*/63-69-74
38	3438	2767*/50-60-67	2940*/58-66-72	2999*/61-68-73	3058*/64-70-75
36	3510	2803*/50-61-68	2980*/58-67-73	3040*/61-69-74	3100*/64-71-76
34	3571	2835*/50-62-69	3015*/59-68-74	3076*/62-70-75	3137*/64-72-77
32	3634	2865*/51-63-70	3049*/59-69-75	3111*/62-71-76	3173*/65-73-78
30	3637	2873*/51-63-70	3058*/59-69-75	3120*/62-71-77	3182*/65-73-78
28	3638	2881*/51-63-70	3066*/60-69-75	3128*/63-71-77	3191*/65-74-78
26	3639	2889*/52-64-71	3073*/60-70-76	3135*/63-72-77	3199*/66-74-79
24	3639	2896*/52-64-71	3081*/60-70-76	3143*/63-72-77	3207*/66-74-79
22	3640	2904*/52-64-71	3089*/61-70-76	3151*/64-72-78	3215*/67-74-79
20	3640	2912*/52-64-71	3097*/61-70-76	3159*/64-72-78	3223*/67-75-79
18	3641	2920*/53-65-72	3104*/61-71-76	3167*/64-73-78	3231*/67-75-80
16	3642	2928*/53-65-72	3112*/62-71-77	3176*/65-73-78	3239*/68-75-80
14	3642	2936*/53-65-72	3120*/62-71-77	3184*/65-73-78	3248*/68-75-80
12	3643	2944*/54-65-72	3129*/63-71-77	3192*/65-74-79	3256*/68-76-80
10	3644	2952*/54-66-72	3137*/63-72-77	3201*/66-74-79	3265*/69-76-80
8	3644	2959*/54-66-73	3145*/63-72-77	3209*/66-74-79	3273*/69-76-81
6	3645	2967*/55-66-73	3153*/64-72-78	3218*/67-74-79	3282*/70-76-81
4	3645	2975*/55-66-73	3162*/64-73-78	3226*/67-75-79	3291*/70-77-81
2	3645	2982*/55-67-73	3170*/64-73-78	3234*/67-75-80	3300*/70-77-81
0	3646	2990*/56-67-73	3178*/65-73-78	3243*/68-75-80	3309*/71-77-81
-2	3646	2998*/56-67-74	3186*/65-73-78	3251*/68-75-80	3318*/71-77-82
-4	3646	3005*/57-67-74	3195*/66-74-79	3259*/69-76-80	3327*/72-78-82
-6	3646	3013*/57-68-74	3203*/66-74-79	3268*/69-76-80	3336*/72-78-82
-8	3646	3021*/57-68-74	3212*/66-74-79	3276*/70-76-81	3345*/73-78-82
-10	3646	3029*/58-68-74	3220*/67-74-79	3285*/70-76-81	3354*/73-78-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 930 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2767 M LONG WITH 303 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33L	14	305	0	17	325	0	48	607	0
	56	667	0	125	2088	0	143	2268	0
	163	2579	0	174	4708	0	352	19711	0
	555	19776	0	657	21683	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 33L BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D3.7 YYZ DME TO A MAG COURSE OF 075 DEGREES

INTENTIONALLY LEFT BLANK

ELEVATION 569 FT

RUNWAY 33R CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2654	2544*/54-56-59	2677*/59-60-62	2698*/60-60-62	2719*/60-60-62
			2678**62-63-65	2704**65-67-68	2729**68-71-71
58A	2711	2585*/54-58-60	2726*/61-62-64	2753*/61-62-64	2775*/62-62-64
			2726**62-64-66	2752**65-68-69	2777**69-71-72
56A	2777	2627*/55-59-62	2780*/62-64-66	2813*/63-64-66	2837*/63-64-66
			2780**62-64-66	2807**66-68-69	2833**69-72-73
54A	2842	2669*/55-60-63	2828*/63-65-67	2868*/64-66-68	2899*/65-66-68
				2863**66-69-70	2889**69-72-73
52	2914	2712*/56-61-64	2876*/63-67-69	2927*/65-68-70	2961*/66-68-70
				2923**66-69-71	2951**69-73-74
50	2988	2757*/56-62-66	2924*/64-68-70	2981*/66-70-72	3024*/68-70-72
					3013**70-73-75
48	3068	2804*/57-63-67	2974*/64-69-72	3032*/67-71-73	3086*/69-72-74
					3080**70-74-75
46	3145	2847*/57-64-69	3021*/65-70-73	3080*/67-72-75	3140*/70-74-76
44	3220	2889*/57-65-70	3066*/65-71-74	3126*/68-73-76	3187*/71-75-78
42	3291	2930*/58-67-71	3109*/66-72-76	3171*/68-74-77	3233*/71-76-79
40	3364	2971*/58-68-72	3153*/66-74-77	3216*/69-76-79	3279*/71-78-80
38	3438	3008*/58-68-73	3193*/66-74-78	3257*/69-77-80	3323*/72-78-81
36	3510	3047*/59-69-75	3234*/67-75-79	3300*/69-77-81	3368*/72-79-82
34	3571	3081*/59-70-76	3271*/67-76-80	3339*/70-78-82	3408*/72-80-83
32	3634	3114*/59-71-77	3307*/67-77-81	3376*/70-79-83	3475*/72-80-84
30	3637	3123*/59-71-77	3318*/68-77-82	3387*/70-79-83	3491*/72-81-84
28	3638	3131*/60-72-77	3327*/68-78-82	3397*/71-80-83	3501*/73-81-84
26	3639	3140*/60-72-77	3336*/68-78-82	3407*/71-80-84	3510*/73-81-84
24	3639	3148*/60-72-77	3346*/69-78-82	3421*/71-80-84	3520*/73-81-84
22	3640	3157*/61-72-78	3356*/69-79-82	3438*/71-80-84	3529*/74-82-85
20	3640	3165*/61-73-78	3365*/69-79-83	3456*/72-80-84	3539*/74-82-85
18	3641	3174*/61-73-78	3375*/70-79-83	3473*/72-80-84	3549*/75-82-85
16	3642	3183*/62-73-78	3385*/70-79-83	3489*/72-80-84	3558*/75-83-85
14	3642	3191*/62-74-79	3395*/70-80-83	3499*/72-81-84	3568*/75-83-85
12	3643	3200*/62-74-79	3405*/71-80-84	3509*/73-81-84	3578*/76-83-86
10	3644	3209*/63-74-79	3418*/71-80-84	3518*/73-81-84	3588*/76-83-86
8	3644	3218*/63-74-79	3436*/71-80-84	3528*/74-82-85	3598*/76-84-86
6	3645	3227*/63-75-79	3454*/71-80-84	3538*/74-82-85	3609*/77-84-86
4	3645	3236*/64-75-80	3472*/72-80-84	3548*/74-82-85	3619*/77-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1040 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3368 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33R	16	305	0	17	375	0	18	482	0
	36	710	0	142	3030	0	148	3160	0
	159	3237	0	331	7050	0	516	18295	0
	545	18339	0	648	20259	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 33R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT-
TURN, COMMENCED AT D3.7 YYZ DME TO A MAG COURSE OF 075 DEGREES

ELEVATION 569 FT

RUNWAY 33R CYYZ

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

2	3645	3245*/64-75-80	3488*/72-80-84	3558*/75-83-85	3629*/78-85-87
0	3646	3254*/64-76-80	3498*/72-81-84	3568*/75-83-85	3639*/78-85-87
-2	3646	3263*/65-76-80	3508*/73-81-84	3578*/76-83-86	3650*/79-85-87
					3648**79-85-88
-4	3646	3273*/65-76-81	3518*/73-81-84	3588*/76-83-86	3659*/79-85-87
					3653**79-86-88
-6	3646	3282*/65-76-81	3528*/73-82-85	3598*/76-84-86	3666*/79-85-87
					3659**80-87-89
-8	3646	3292*/66-77-81	3538*/74-82-85	3609*/77-84-86	3673*/79-85-87
					3664**80-87-89
-10	3646	3302*/66-77-81	3548*/74-82-85	3619*/77-84-87	3679*/79-85-87
					3670**81-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1040 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3368 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M			
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33R	16	305	0	17	375	0	18	482	0
	36	710	0	142	3030	0	148	3160	0
	159	3237	0	331	7050	0	516	18295	0
	545	18339	0	648	20259	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 33R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D3.7 YYZ DME TO A MAG COURSE OF 075 DEGREES

ELEVATION 328 FT

RUNWAY 15

EGBB

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2677	2388*/48-51-55	2513*/55-55-58	2548*/56-56-59	2585*/58-58-60
				2550**58-58-61	2586**60-60-62
58A	2734	2429*/49-52-56	2560*/57-57-60	2596*/58-58-61	2633*/59-59-62
				2598**59-59-62	2635**61-61-64
56A	2801	2476*/50-53-57	2615*/58-58-61	2652*/59-59-62	2689*/61-61-63
54A	2867	2522*/50-54-59	2668*/60-60-63	2707*/61-61-64	2744*/62-62-65
52	2943	2572*/51-56-61	2722*/60-61-65	2768*/63-63-66	2806*/64-64-67
50	3018	2619*/52-57-62	2774*/60-63-66	2822*/63-64-68	2868*/66-66-69
48	3098	2662*/53-58-63	2826*/61-64-68	2877*/64-66-69	2927*/66-67-71
46	3175	2702*/53-59-65	2875*/61-65-69	2927*/64-67-71	2979*/67-69-72
44	3250	2740*/54-60-66	2920*/61-66-71	2975*/64-68-72	3029*/67-70-74
42	3324	2779*/54-61-67	2961*/62-67-72	3022*/64-69-74	3078*/67-71-75
40	3395	2816*/54-62-68	3001*/62-68-73	3065*/65-70-75	3124*/68-72-76
38	3473	2851*/55-63-69	3038*/63-69-74	3103*/65-71-76	3168*/68-74-78
36	3541	2887*/55-64-70	3076*/63-70-75	3142*/66-72-77	3208*/68-75-79
34	3604	2919*/55-65-71	3110*/63-71-76	3176*/66-73-78	3244*/69-75-80
32	3652	2943*/56-65-72	3137*/64-72-77	3204*/66-74-79	3272*/69-76-81
30	3653	2951*/56-66-72	3146*/64-72-77	3213*/67-74-79	3282*/70-76-81
28	3654	2959*/56-66-73	3154*/64-72-78	3222*/67-74-79	3292*/70-77-81
26	3654	2968*/56-66-73	3163*/65-73-78	3231*/67-75-80	3302*/70-77-81
24	3655	2976*/57-66-73	3173*/65-73-78	3240*/68-75-80	3312*/71-77-81
22	3656	2984*/57-67-73	3182*/65-73-78	3250*/68-75-80	3322*/71-77-82
20	3656	2992*/57-67-73	3191*/66-73-79	3259*/68-76-80	3332*/71-78-82
18	3657	3001*/58-67-74	3200*/66-74-79	3269*/69-76-80	3340*/72-78-82
16	3657	3009*/58-67-74	3209*/66-74-79	3279*/69-76-81	3349*/72-78-82
14	3658	3018*/58-68-74	3219*/67-74-79	3289*/70-77-81	3357*/72-78-82
12	3659	3026*/59-68-74	3228*/67-75-79	3299*/70-77-81	3366*/73-79-83
10	3660	3035*/59-68-75	3238*/67-75-80	3309*/70-77-81	3374*/73-79-83
8	3660	3044*/59-69-75	3248*/68-75-80	3318*/71-77-82	3382*/74-79-83
6	3661	3053*/60-69-75	3258*/68-76-80	3326*/71-78-82	3391*/74-79-83
4	3661	3062*/60-69-75	3267*/68-76-80	3334*/71-78-82	3399*/74-80-83
2	3662	3071*/60-70-75	3277*/69-76-81	3343*/72-78-82	3407*/75-80-84
0	3662	3080*/61-70-76	3286*/69-76-81	3351*/72-78-82	3418*/75-80-84
-2	3662	3089*/61-70-76	3295*/70-77-81	3359*/73-79-83	3431*/76-80-84
-4	3662	3098*/61-70-76	3303*/70-77-81	3367*/73-79-83	3444*/76-80-84
-6	3662	3108*/62-71-76	3311*/70-77-81	3376*/74-79-83	3456*/76-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.33 PERCENT FOR TODA AND 0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15	5	88	0	28	481	0	39	635	0
	55	762	0	63	764	0	70	848	0
	138	2086	0	255	37492	0	261	37805	0
	297	37867	0	307	38013	0	330	38261	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 328 FT

RUNWAY 15

EGBB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-8	3663	3117*/62-71-77	3319*/71-77-82	3384*/74-79-83	3469*/77-80-84

-10	3663	3127*/62-71-77	3327*/71-78-82	3392*/74-79-83	3481*/77-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.33 PERCENT FOR TODA AND 0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15	5	88	0	28	481	0	39	635	0
	55	762	0	63	764	0	70	848	0
	138	2086	0	255	37492	0	261	37805	0
	297	37867	0	307	38013	0	330	38261	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 328 FT

RUNWAY 33

EGBB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2677	2416*/48-52-55	2534*/56-56-59	2565*/57-57-60	2596*/58-58-61
			2540**58-60-62	2573**61-63-65	2606**63-66-67
58A	2734	2456*/49-53-57	2584*/57-57-60	2616*/59-59-61	2647*/60-60-62
			2588**59-60-63	2622**61-63-65	2655**64-66-68
56A	2801	2501*/50-54-58	2642*/59-59-62	2675*/60-60-63	2706*/61-61-64
			2644**59-61-64	2678**62-64-67	2712**66-66-68
54A	2867	2546*/51-55-60	2699*/60-61-64	2732*/62-62-65	2764*/63-63-66
				2734**63-64-67	2769**65-67-69
52	2943	2596*/52-57-61	2754*/60-62-66	2796*/63-64-67	2829*/65-65-68
					2833**66-68-70
50	3018	2643*/52-58-63	2803*/60-64-67	2854*/63-65-68	2894*/66-67-70
48	3098	2690*/53-59-64	2853*/61-65-69	2908*/63-67-70	2957*/66-68-71
46	3175	2732*/53-60-66	2899*/61-66-70	2955*/64-68-71	3012*/67-70-73
44	3250	2774*/53-61-67	2944*/61-67-71	3001*/64-69-73	3059*/67-71-74
42	3324	2816*/53-62-68	2988*/62-68-73	3047*/64-70-74	3106*/67-72-76
40	3395	2856*/54-63-69	3030*/62-69-74	3090*/65-71-75	3151*/68-73-77
38	3473	2893*/54-64-70	3070*/62-70-75	3131*/65-72-77	3193*/68-74-78
36	3541	2931*/54-65-72	3111*/63-71-76	3173*/65-73-78	3236*/68-75-79
34	3604	2965*/54-66-73	3148*/63-72-77	3210*/66-74-79	3274*/69-76-81
32	3652	2992*/54-67-73	3176*/63-73-78	3240*/66-75-80	3306*/69-77-81
30	3653	2999*/55-67-74	3184*/63-73-78	3248*/66-75-80	3315*/69-77-82
28	3654	3007*/55-67-74	3193*/64-73-79	3256*/67-76-80	3323*/70-78-82
26	3654	3014*/55-68-74	3201*/64-74-79	3265*/67-76-80	3332*/70-78-82
24	3655	3022*/56-68-74	3209*/64-74-79	3273*/67-76-81	3341*/70-78-82
22	3656	3029*/56-68-74	3217*/65-74-79	3282*/68-76-81	3350*/71-78-82
20	3656	3037*/56-68-75	3225*/65-75-79	3291*/68-77-81	3359*/71-79-83
18	3657	3045*/57-69-75	3234*/66-75-80	3300*/68-77-81	3368*/71-79-83
16	3657	3053*/57-69-75	3242*/66-75-80	3309*/69-77-81	3377*/72-79-83
14	3658	3061*/57-69-75	3251*/66-75-80	3318*/69-77-82	3387*/72-79-83
12	3659	3069*/58-69-75	3259*/67-76-80	3327*/70-78-82	3396*/73-80-83
10	3660	3077*/58-70-76	3268*/67-76-80	3337*/70-78-82	3406*/73-80-84
8	3660	3085*/58-70-76	3277*/67-76-81	3346*/70-78-82	3418*/73-80-84
6	3661	3093*/59-70-76	3286*/68-76-81	3355*/71-78-82	3434*/73-80-84
4	3661	3101*/59-71-76	3295*/68-77-81	3364*/71-79-83	3450*/74-80-84
2	3662	3109*/60-71-76	3304*/69-77-81	3374*/72-79-83	3466*/74-80-84
0	3662	3117*/60-71-77	3314*/69-77-82	3383*/72-79-83	3480*/74-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 520 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 193 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.33 PERCENT FOR TODA AND -0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33	11	274	0	43	523	0	49	577	0
	69	1022	0	83	1298	0	125	2280	0
	185	2360	0	262	14246	0	281	14787	0
	298	15536	0	337	32498	0	370	32645	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 328 FT

RUNWAY 33

EGBB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-2	3662	3126*/60-71-77	3323*/69-77-82	3392*/72-79-83	3488*/75-80-84
-4	3662	3134*/61-72-77	3332*/70-78-82	3402*/73-80-84	3494*/75-81-84
-6	3662	3142*/61-72-77	3341*/70-78-82	3411*/73-80-84	3500*/76-81-84
-8	3663	3150*/61-72-78	3351*/71-78-82	3427*/73-80-84	3506*/76-81-84
-10	3663	3159*/62-72-78	3360*/71-79-83	3443*/74-80-84	3512*/77-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 520 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 193 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.33 PERCENT FOR TODA AND -0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33	11	274	0	43	523	0	49	577	0
	69	1022	0	83	1298	0	125	2280	0
	185	2360	0	262	14246	0	281	14787	0
	298	15536	0	337	32498	0	370	32645	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 257 FT

RUNWAY 05L

EGCC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2684	2412*/48-51-55	2557*/57-57-60	2593*/58-58-61	2630*/59-59-62
					2632*/62-62-64
58A	2741	2451*/49-53-57	2601*/57-58-61	2642*/59-59-62	2679*/61-61-63
56A	2808	2496*/50-54-58	2652*/58-59-62	2697*/61-61-64	2735*/62-62-65
54A	2874	2541*/50-55-59	2700*/59-61-64	2748*/62-62-65	2791*/64-64-66
52	2951	2592*/51-57-61	2751*/60-62-66	2802*/62-64-67	2851*/65-66-68
50	3027	2641*/52-58-63	2800*/60-63-67	2853*/63-65-68	2905*/65-67-70
48	3107	2688*/53-59-64	2849*/61-65-69	2904*/63-67-70	2959*/66-68-71
46	3184	2730*/53-60-65	2895*/61-66-70	2952*/64-68-71	3007*/66-70-73
44	3259	2772*/53-61-67	2940*/61-67-71	2997*/64-69-73	3055*/67-71-74
42	3333	2813*/54-62-68	2984*/62-68-73	3043*/64-70-74	3102*/67-72-76
40	3404	2853*/54-63-69	3027*/62-69-74	3086*/65-71-75	3147*/68-73-77
38	3483	2890*/54-64-70	3066*/62-70-75	3127*/65-72-77	3188*/68-74-78
36	3550	2928*/54-65-72	3107*/63-71-76	3169*/66-73-78	3231*/68-75-79
34	3614	2961*/55-66-73	3144*/63-72-77	3206*/66-74-79	3269*/69-76-80
32	3656	2985*/55-67-73	3170*/63-73-78	3233*/66-75-80	3298*/69-77-81
30	3657	2993*/55-67-73	3178*/64-73-78	3241*/67-75-80	3307*/69-77-81
28	3658	3000*/56-67-74	3186*/64-73-78	3250*/67-75-80	3316*/70-77-82
26	3659	3008*/56-67-74	3194*/64-74-79	3258*/67-76-80	3325*/70-78-82
24	3659	3016*/56-68-74	3203*/65-74-79	3266*/68-76-80	3334*/70-78-82
22	3660	3024*/56-68-74	3211*/65-74-79	3275*/68-76-81	3343*/71-78-82
20	3661	3032*/57-68-74	3219*/65-74-79	3284*/68-76-81	3352*/71-78-82
18	3661	3040*/57-68-75	3227*/66-75-79	3293*/69-77-81	3361*/72-79-83
16	3662	3048*/57-69-75	3236*/66-75-80	3302*/69-77-81	3370*/72-79-83
14	3663	3056*/58-69-75	3244*/67-75-80	3311*/69-77-81	3379*/72-79-83
12	3664	3064*/58-69-75	3253*/67-75-80	3320*/70-77-82	3389*/73-79-83
10	3664	3072*/59-70-76	3262*/67-76-80	3329*/70-78-82	3398*/73-80-83
8	3665	3080*/59-70-76	3271*/68-76-81	3339*/71-78-82	3407*/73-80-84
6	3666	3088*/59-70-76	3279*/68-76-81	3348*/71-78-82	3421*/74-80-84
4	3666	3096*/60-70-76	3288*/68-76-81	3357*/71-78-83	3436*/74-80-84
2	3667	3104*/60-71-76	3298*/69-77-81	3366*/72-79-83	3452*/74-80-84
0	3667	3113*/60-71-77	3307*/69-77-81	3376*/72-79-83	3467*/75-80-84
-2	3667	3121*/61-71-77	3316*/70-77-82	3385*/73-79-83	3483*/75-80-84
-4	3667	3129*/61-71-77	3325*/70-78-82	3394*/73-80-83	3493*/75-80-84
-6	3667	3138*/61-72-77	3334*/70-78-82	3404*/73-80-84	3502*/76-81-84
-8	3667	3146*/62-72-77	3344*/71-78-82	3414*/74-80-84	3511*/76-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3014 M LONG WITH 215 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05L	4	219	0	5	246	0	8	277	0
	13	337	0	17	346	0	20	358	0
	21	404	0	25	443	0	31	495	0
	36	510	0	46	655	0	269	14305	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05L BASED ON A 15 DEGREE BANKED
CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF 300
DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 05L EGCC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-10 3667 3154*/62-72-78 3353*/71-78-82 3430*/74-80-84 3519*/77-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3014 M LONG WITH 215 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05L	4	219	0	5	246	0	8	277	0
	13	337	0	17	346	0	20	358	0
	21	404	0	25	443	0	31	495	0
	36	510	0	46	655	0	269	14305	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05L BASED ON A 15 DEGREE BANKED
CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF 300
DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 05R

EGCC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2684	2448*/48-53-56	2581*/57-58-60	2618*/59-59-61	2652*/60-60-62
				2620**60-60-62	2657**63-63-65
58A	2741	2486*/49-54-58	2627*/58-59-62	2668*/60-60-63	2703*/61-61-64
				2669**61-61-63	2707**64-64-66
56A	2808	2530*/50-55-59	2680*/59-60-63	2724*/62-62-64	2760*/63-63-65
					2762**65-65-67
54A	2874	2573*/51-56-60	2729*/59-62-65	2774*/62-63-66	2817*/65-65-67
52	2951	2623*/52-58-62	2783*/60-63-66	2830*/62-65-68	2876*/65-66-69
50	3027	2668*/52-59-63	2836*/60-65-68	2884*/63-66-69	2932*/66-68-71
48	3107	2713*/53-60-65	2884*/60-66-69	2940*/63-68-71	2989*/66-69-72
46	3184	2753*/53-61-66	2928*/61-67-71	2987*/64-69-72	3043*/66-71-74
44	3259	2794*/54-62-67	2970*/61-68-72	3032*/64-70-74	3093*/67-72-75
42	3333	2834*/54-63-69	3013*/62-69-73	3075*/64-71-75	3138*/67-73-77
40	3404	2872*/54-64-70	3054*/62-70-75	3117*/65-72-76	3181*/68-74-78
38	3483	2908*/55-65-71	3092*/63-71-76	3156*/65-73-77	3221*/68-75-79
36	3550	2946*/55-66-72	3132*/63-72-77	3197*/66-74-78	3262*/68-76-80
34	3614	2979*/55-67-73	3167*/63-73-78	3233*/66-75-79	3300*/69-77-81
32	3656	3002*/55-67-74	3193*/64-73-79	3259*/66-76-80	3329*/69-78-82
30	3657	3010*/56-68-74	3202*/64-74-79	3268*/67-76-80	3338*/69-78-82
28	3658	3018*/56-68-74	3211*/64-74-79	3277*/67-76-81	3348*/70-78-82
26	3659	3026*/56-68-74	3219*/65-74-79	3287*/67-76-81	3358*/70-78-83
24	3659	3035*/57-68-75	3228*/65-75-79	3296*/68-77-81	3368*/70-79-83
22	3660	3043*/57-69-75	3237*/65-75-80	3306*/68-77-81	3378*/71-79-83
20	3661	3051*/57-69-75	3246*/66-75-80	3316*/68-77-82	3388*/71-79-83
18	3661	3059*/57-69-75	3255*/66-75-80	3325*/69-78-82	3398*/72-80-83
16	3662	3068*/58-69-75	3265*/66-76-80	3335*/69-78-82	3408*/72-80-84
14	3663	3076*/58-70-76	3274*/67-76-81	3345*/69-78-82	3424*/72-80-84
12	3664	3085*/58-70-76	3284*/67-76-81	3356*/70-78-82	3442*/72-80-84
10	3664	3094*/59-70-76	3294*/67-77-81	3366*/70-79-83	3460*/72-80-84
8	3665	3103*/59-71-76	3304*/68-77-81	3376*/71-79-83	3480*/73-80-84
6	3666	3112*/59-71-77	3314*/68-77-82	3387*/71-79-83	3491*/73-80-84
4	3666	3120*/60-71-77	3324*/68-77-82	3397*/71-80-83	3498*/73-81-84
2	3667	3129*/60-71-77	3334*/69-78-82	3407*/72-80-84	3506*/74-81-84
0	3667	3138*/60-72-77	3344*/69-78-82	3423*/72-80-84	3514*/74-81-84
-2	3667	3147*/61-72-77	3354*/69-78-82	3441*/72-80-84	3521*/75-81-84
-4	3667	3156*/61-72-78	3365*/70-79-83	3458*/72-80-84	3529*/75-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 500 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3047 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.46 PERCENT FOR TODA AND 0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05R	14	312	0	20	414	0	34	657	0
	41	706	0	55	1000	0	61	1062	0
	68	1068	0	104	1824	0	105	2107	0
	290	16601	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05R BASED ON A 15 DEGREE

BANKED CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF 300 DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 05R EGCC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3667	3165*/62-73-78	3375*/70-79-83	3470*/73-80-84	3536*/76-82-85

-8	3667	3174*/62-73-78	3386*/71-79-83	3482*/73-80-84	3544*/76-82-85

-10	3667	3184*/62-73-78	3396*/71-80-83	3491*/73-80-84	3551*/77-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 500 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3047 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.46 PERCENT FOR TODA AND 0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05R	14	312	0	20	414	0	34	657	0
	41	706	0	55	1000	0	61	1062	0
	68	1068	0	104	1824	0	105	2107	0
	290	16601	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05R BASED ON A 15 DEGREE

BANKED CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF 300 DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 23L

EGCC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2684	2470*/49-54-57	2635*/58-59-62	2684*/60-61-63	2719*/60-61-63
				2687**60-61-63	2714**63-65-67
58A	2741	2508*/50-55-58	2676*/59-61-63	2730*/61-62-64	2767*/62-63-65
					2764**64-66-67
56A	2808	2553*/51-56-60	2720*/59-62-64	2775*/62-64-66	2819*/63-65-67
					2819**65-66-68
54A	2874	2597*/52-57-61	2763*/60-63-66	2818*/62-65-67	2874*/65-67-69
52	2951	2644*/52-58-63	2811*/60-64-67	2868*/63-66-69	2926*/65-68-70
50	3027	2688*/53-60-64	2858*/61-65-69	2916*/63-67-70	2975*/66-69-72
48	3107	2733*/53-61-65	2905*/61-67-70	2965*/64-69-72	3025*/66-71-73
46	3184	2774*/53-62-67	2950*/61-68-71	3010*/64-70-73	3071*/67-72-75
44	3259	2815*/54-63-68	2993*/62-69-73	3054*/64-71-74	3117*/67-73-76
42	3333	2855*/54-64-69	3036*/62-70-74	3098*/65-72-76	3162*/67-74-77
40	3404	2894*/54-65-70	3078*/62-71-75	3141*/65-73-77	3205*/68-75-78
38	3483	2931*/54-66-71	3116*/63-72-76	3181*/65-74-78	3246*/68-76-80
36	3550	2968*/55-67-73	3156*/63-73-77	3222*/66-75-79	3288*/69-77-81
34	3614	3001*/55-67-74	3192*/63-74-78	3258*/66-76-80	3327*/69-78-82
32	3656	3026*/55-68-74	3218*/63-74-79	3285*/66-76-81	3356*/69-78-82
30	3657	3034*/55-68-74	3227*/64-75-79	3295*/67-77-81	3366*/69-79-83
28	3658	3042*/56-69-75	3236*/64-75-80	3304*/67-77-81	3375*/70-79-83
26	3659	3050*/56-69-75	3244*/64-75-80	3313*/67-77-82	3385*/70-79-83
24	3659	3058*/56-69-75	3253*/65-75-80	3323*/68-77-82	3395*/70-80-83
22	3660	3066*/57-69-75	3262*/65-76-80	3333*/68-78-82	3405*/71-80-84
20	3661	3074*/57-70-76	3271*/66-76-81	3343*/68-78-82	3418*/71-80-84
18	3661	3083*/57-70-76	3281*/66-76-81	3352*/69-78-82	3435*/71-80-84
16	3662	3091*/58-70-76	3290*/66-77-81	3362*/69-79-83	3453*/71-80-84
14	3663	3100*/58-70-76	3300*/67-77-81	3372*/69-79-83	3471*/72-80-84
12	3664	3108*/58-71-76	3310*/67-77-81	3382*/70-79-83	3489*/72-80-84
10	3664	3117*/59-71-77	3320*/67-77-82	3392*/70-79-83	3499*/72-81-84
8	3665	3126*/59-71-77	3330*/68-78-82	3403*/71-80-84	3509*/73-81-84
6	3666	3135*/59-72-77	3340*/68-78-82	3414*/71-80-84	3519*/73-81-84
4	3666	3144*/60-72-77	3350*/68-78-82	3433*/71-80-84	3529*/73-82-85
2	3667	3152*/60-72-78	3360*/69-79-83	3451*/71-80-84	3539*/74-82-85
0	3667	3161*/60-72-78	3370*/69-79-83	3469*/71-80-84	3549*/74-82-85
-2	3667	3170*/61-73-78	3380*/69-79-83	3487*/72-80-84	3559*/75-82-85
-4	3667	3179*/61-73-78	3391*/70-79-83	3497*/72-81-84	3570*/75-83-86
-6	3667	3188*/61-73-78	3401*/70-80-83	3507*/72-81-84	3580*/76-83-86
-8	3667	3197*/62-74-79	3411*/71-80-84	3517*/73-81-84	3591*/76-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23L	23	355	0	27	588	0	47	1074	0
	362	17011	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE

BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG

COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23L EGCC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-10 3667 3207*/62-74-79 3430*/71-80-84 3528*/73-82-85 3601*/76-84-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

23L	23	355	0	27	588	0	47	1074	0

362	17011	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE

BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG

COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23L (A) EGCC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF MANCHESTER
 MANCHESTER
 DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2684	2528*/52-56-59	2684*/59-61-63	2718*/60-61-63	2752*/60-61-63
			2687**60-62-63	2714**63-65-67	2740**66-69-70
58A	2741	2568*/53-57-60	2729*/61-62-64	2764*/61-63-65	2801*/62-63-65
				2763**64-66-67	2790**67-69-70
56A	2808	2612*/54-58-61	2773*/61-64-66	2816*/62-65-67	2854*/63-65-67
				2818**64-66-68	2845**67-70-71
54A	2874	2653*/54-59-63	2817*/62-65-67	2873*/64-67-69	2907*/64-67-69
					2902**68-70-72
52	2951	2699*/54-60-64	2866*/62-66-69	2923*/65-68-70	2967*/66-69-71
					2967**68-71-73
50	3027	2744*/55-61-65	2914*/63-67-70	2972*/65-69-72	3027*/67-71-73
					3029**68-71-73
48	3107	2790*/55-63-67	2963*/63-68-72	3022*/66-70-73	3082*/68-72-75
46	3184	2832*/55-64-68	3008*/63-70-73	3068*/66-72-74	3130*/69-74-76
44	3259	2873*/56-65-69	3052*/64-71-74	3114*/66-73-76	3176*/69-75-77
42	3333	2915*/56-66-71	3096*/64-72-75	3159*/67-74-77	3222*/70-76-79
40	3404	2955*/56-67-72	3139*/64-73-77	3202*/67-75-78	3266*/70-77-80
38	3483	2992*/56-68-73	3179*/65-74-78	3243*/67-76-79	3309*/70-78-81
36	3550	3030*/57-69-74	3219*/65-75-79	3285*/68-77-81	3354*/71-79-82
34	3614	3064*/57-69-75	3256*/65-76-80	3324*/68-78-82	3394*/71-80-83
32	3656	3089*/57-70-76	3283*/65-76-81	3353*/68-78-82	3433*/71-80-84
30	3657	3097*/57-70-76	3292*/66-77-81	3362*/69-79-83	3451*/71-80-84
28	3658	3105*/58-71-76	3301*/66-77-81	3372*/69-79-83	3468*/71-80-84
26	3659	3113*/58-71-77	3311*/66-77-81	3381*/69-79-83	3486*/71-80-84
24	3659	3122*/58-71-77	3320*/67-77-82	3391*/70-79-83	3496*/72-81-84
22	3660	3130*/59-71-77	3330*/67-78-82	3401*/70-80-83	3505*/72-81-84
20	3661	3139*/59-72-77	3339*/67-78-82	3410*/70-80-84	3515*/72-81-84
18	3661	3147*/59-72-77	3349*/68-78-82	3428*/71-80-84	3525*/73-81-84
16	3662	3156*/60-72-78	3359*/68-79-83	3445*/71-80-84	3534*/73-82-85
14	3663	3164*/60-73-78	3369*/69-79-83	3462*/71-80-84	3544*/74-82-85
12	3664	3173*/60-73-78	3379*/69-79-83	3481*/71-80-84	3554*/74-82-85
10	3664	3182*/61-73-78	3389*/69-79-83	3493*/71-80-84	3565*/74-83-85
8	3665	3191*/61-73-79	3399*/70-80-83	3503*/72-81-84	3575*/75-83-86
6	3666	3200*/61-74-79	3409*/70-80-84	3513*/72-81-84	3585*/75-83-86
4	3666	3209*/62-74-79	3425*/70-80-84	3523*/73-81-84	3595*/76-84-86
2	3667	3218*/62-74-79	3442*/70-80-84	3533*/73-82-85	3606*/76-84-86
0	3667	3227*/62-75-79	3460*/71-80-84	3543*/73-82-85	3616*/76-84-87
-2	3667	3236*/63-75-80	3478*/71-80-84	3554*/74-82-85	3626*/77-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 540 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23L (A)	23	355	0	27	588	0	47	1074	0
	362	17011	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE
 BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
 COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23L (A) EGCC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-4	3667	3245*/63-75-80	3492*/71-80-84	3564*/74-83-85	3637*/77-85-87
-6	3667	3254*/63-75-80	3502*/72-81-84	3574*/75-83-86	3647*/78-85-87
-8	3667	3263*/64-76-80	3512*/72-81-84	3584*/75-83-86	3658*/78-85-88
-10	3667	3273*/64-76-81	3522*/72-81-84	3595*/75-84-86	3667*/78-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 540 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23L (A)	23	355	0	27	588	0	47	1074	0
	362	17011	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE

BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23R EGCC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF MANCHESTER
 MANCHESTER
 DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2684	2426*/46-52-56	2592*/55-58-61	2649*/58-60-62	2702*/60-61-63
					2695**61-63-64
58A	2741	2463*/47-53-57	2632*/55-59-62	2690*/58-61-63	2748*/61-63-65
					2744**61-63-65
56A	2808	2507*/48-54-58	2679*/56-60-63	2735*/59-62-65	2791*/62-64-66
54A	2874	2550*/48-55-60	2722*/57-61-65	2778*/60-63-66	2835*/62-65-68
52	2951	2598*/49-57-61	2770*/57-63-66	2827*/60-65-68	2884*/63-67-69
50	3027	2645*/50-58-63	2816*/58-64-67	2874*/61-66-69	2933*/63-68-71
48	3107	2689*/51-59-64	2863*/58-65-69	2922*/61-67-70	2982*/64-69-72
46	3184	2729*/51-60-65	2906*/59-66-70	2967*/61-68-72	3027*/64-70-73
44	3259	2768*/51-61-67	2949*/59-67-71	3010*/62-69-73	3072*/64-71-75
42	3333	2807*/51-62-68	2990*/59-68-73	3054*/62-70-74	3117*/65-72-76
40	3404	2845*/52-63-69	3031*/60-69-74	3095*/62-71-76	3160*/65-74-77
38	3483	2880*/52-64-70	3068*/60-70-75	3133*/63-72-77	3200*/66-75-78
36	3550	2917*/52-65-71	3107*/60-71-76	3173*/63-73-78	3240*/66-75-80
34	3614	2949*/52-66-72	3142*/61-72-77	3208*/63-74-79	3276*/66-76-81
32	3656	2973*/53-66-73	3167*/61-73-78	3234*/64-75-80	3304*/67-77-81
30	3657	2981*/53-67-73	3176*/61-73-78	3243*/64-75-80	3314*/67-77-82
28	3658	2989*/53-67-73	3185*/62-73-78	3253*/64-75-80	3324*/67-78-82
26	3659	2997*/53-67-74	3194*/62-73-79	3262*/65-76-80	3334*/68-78-82
24	3659	3005*/54-67-74	3203*/62-74-79	3271*/65-76-81	3344*/68-78-82
22	3660	3013*/54-68-74	3212*/63-74-79	3281*/65-76-81	3354*/68-78-82
20	3661	3022*/54-68-74	3221*/63-74-79	3291*/66-77-81	3365*/69-79-83
18	3661	3030*/55-68-74	3230*/63-75-80	3301*/66-77-81	3375*/69-79-83
16	3662	3039*/55-68-75	3239*/64-75-80	3311*/66-77-81	3385*/69-79-83
14	3663	3047*/55-69-75	3249*/64-75-80	3321*/67-77-82	3395*/70-80-83
12	3664	3056*/56-69-75	3259*/64-76-80	3331*/67-78-82	3405*/70-80-84
10	3664	3065*/56-69-75	3268*/65-76-80	3342*/67-78-82	3419*/70-80-84
8	3665	3074*/56-70-76	3278*/65-76-81	3352*/68-78-82	3437*/70-80-84
6	3666	3083*/57-70-76	3288*/65-76-81	3362*/68-79-83	3456*/71-80-84
4	3666	3092*/57-70-76	3299*/66-77-81	3373*/69-79-83	3474*/71-80-84
2	3667	3101*/57-70-76	3309*/66-77-81	3383*/69-79-83	3490*/71-80-84
0	3667	3110*/58-71-76	3319*/66-77-82	3393*/69-79-83	3500*/72-81-84
-2	3667	3119*/58-71-77	3329*/67-78-82	3403*/70-80-84	3510*/72-81-84
-4	3667	3128*/58-71-77	3340*/67-78-82	3416*/70-80-84	3521*/72-81-84
-6	3667	3137*/59-72-77	3350*/68-78-82	3434*/70-80-84	3531*/73-82-85
-8	3667	3147*/59-72-77	3360*/68-79-83	3453*/70-80-84	3541*/73-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 500 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2897 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.52 PERCENT FOR TODA AND -0.52 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23R	8	307	0	12	308	0	14	419	0
	22	428	0	24	638	0	28	657	0
	38	852	0	347	18650	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23R BASED ON A 15 DEGREE
 BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
 COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23R EGCC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-10 3667 3156*/59-72-78 3371*/68-79-83 3471*/71-80-84 3552*/74-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 500 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2897 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.52 PERCENT FOR TODA AND -0.52 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23R	8	307	0	12	308	0	14	419	0
	22	428	0	24	638	0	28	657	0
	38	852	0	347	18650	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23R BASED ON A 15 DEGREE

BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG

COURSE OF 300 DEGREES

ELEVATION 83 FT RUNWAY 09L EGLL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2700	2700*/62-62-64	2769*/60-62-64	2793*/61-62-64	2817*/61-62-64
		2706**63-65-66	2799**72-76-76	2817**74-79-79	2817**75-79-79
58A	2758	2753*/63-63-65	2821*/62-63-65	2847*/62-63-65	2872*/63-63-65
		2755**63-64-66	2848**72-76-76	2872**76-80-80	2875**76-80-80
56A	2825	2810*/63-65-67	2882*/63-65-67	2908*/64-65-67	2934*/64-65-67
			2906**72-76-77	2930**76-80-81	2941**78-82-82
54	2895	2864*/63-66-68	2944*/64-67-69	2971*/65-67-69	2998*/66-67-69
			2965**73-77-78	2991**76-81-81	3014**79-84-84
52	2973	2924*/63-68-70	3015*/66-69-72	3043*/67-69-72	3070*/67-69-72
			3032**73-77-78	3061**76-81-82	3086**79-85-85
50	3049	2979*/64-69-72	3082*/67-72-74	3112*/68-72-74	3140*/69-72-74
			3098**73-78-79	3127**76-82-82	3153**80-85-86
48	3128	3031*/64-71-73	3152*/69-74-76	3182*/70-74-76	3211*/70-74-76
			3163**73-78-80	3193**76-82-83	3221**80-86-86
46	3205	3079*/64-72-75	3218*/70-76-78	3249*/71-76-78	3280*/72-76-78
			3227**73-78-80	3258**76-82-84	3287**80-86-87
44	3281	3122F/64-73-76	3283*/72-78-80	3317*/72-78-80	3351*/73-78-80
			3289**73-79-81	3323**76-83-84	3355**80-87-87
42	3355	3164F/65-74-77	3349*/73-80-82	3382*/73-80-82	3420*/74-80-82
				3386**76-83-85	3422**80-87-88
40	3431	3205F/65-75-78	3400*/73-81-83	3463*/74-81-83	3505*/75-81-83
				3462**76-83-85	3501**79-87-88
38	3505	3243F/65-76-80	3471*/73-81-83	3522*/74-81-84	3558*/75-81-84
				3524**76-84-85	3559**80-87-89
36	3573	3283F/66-77-81	3524*/73-82-84	3579*/75-83-85	3617*/76-83-85
				3581**76-84-86	3616**80-88-89
34	3638	3320F/66-77-82	3566*/73-83-85	3630*/76-85-87	3673*/77-85-87
					3669**80-88-90
32	3667	3341F/66-78-82	3589F/73-83-86	3653*/76-85-88	3700*/78-86-88
					3696**80-89-90
30	3668	3351F/66-78-82	3598*/74-84-86	3662*/77-86-88	3705*/78-86-88
					3701**80-89-91
28	3668	3360F/67-79-83	3606*/74-84-86	3668*/77-86-88	3710*/78-86-88
				3670**77-86-88	3707**81-90-91
26	3669	3370F/67-79-83	3615*/75-84-87	3674*/77-86-88	3714*/78-86-88
				3676**78-86-88	3712**81-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 950 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3901 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09L	13	268	0	17	330	0	19	361	0
	26	491	0	29	512	0	59	1201	0
	82	1626	0	87	1673	0	89	1677	0
	248	17290	0	258	17491	0	575	17612	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 09L

EGLL

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

HEATROW

LONDON

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3670	3380F/67-79-83	3624*/75-84-87	3680*/77-86-88	3719*/78-86-88
				3681**78-87-89	3718**82-91-92
22	3671	3390F/68-79-83	3633*/75-85-87	3686*/77-86-88	3723*/78-86-88
				3687**79-87-89	3724**82-91-93
20	3672	3401F/68-80-83	3642*/76-85-87	3690*/77-86-88	3728*/78-86-88
				3692**79-88-90	3729**83-92-93
18	3672	3411F/68-80-84	3651*/76-85-88	3695*/77-86-88	3732*/78-86-88
				3698**80-88-90	3735**83-92-94
16	3673	3429F/68-80-84	3660*/77-85-88	3700*/77-86-88	3737*/78-86-88
				3703**80-89-91	3740**84-93-94
14	3674	3448F/69-80-84	3669*/77-86-88	3704*/78-86-88	3741*/78-86-88
				3709**81-90-91	3746**84-94-95
12	3675	3467F/69-80-84	3675*/77-86-88	3709*/78-86-88	3746*/79-86-88
				3715**81-90-92	3752**85-94-95
10	3676	3487F/69-80-84	3676*/77-86-88	3714*/78-86-88	3751*/79-86-88
			3681**78-86-89	3721**82-91-92	3758**86-95-96
8	3677	3497F/69-81-84	3680*/77-86-88	3718*/78-86-88	3755*/79-86-88
			3687**79-87-89	3727**82-91-93	3764**86-95-96
6	3677	3508F/69-81-84	3685*/77-86-88	3723*/78-86-88	3760*/79-86-88
			3693**79-88-90	3733**83-92-93	3769**87-96-97
4	3678	3518F/70-81-84	3689*/77-86-88	3727*/78-86-88	3764*/79-86-88
			3699**80-88-90	3739**83-92-94	3775**87-96-97
2	3678	3529F/70-81-85	3694*/77-86-88	3731*/78-86-88	3768*/79-86-88
			3704**80-89-91	3744**84-93-94	3781**88-97-98
0	3678	3538*/71-82-85	3698*/77-86-88	3735*/78-86-88	3772*/79-86-88
			3710**81-89-91	3750**84-94-95	3786**88-98-98
-2	3679	3547*/71-82-85	3702*/77-86-88	3740*/78-86-88	3776*/79-86-88
			3715**81-90-92	3755**85-94-95	3787**88-98-98
-4	3679	3556*/71-82-85	3706*/78-86-88	3744*/78-86-88	3780*/79-86-88
			3721**82-90-92	3761**85-95-96	3787**88-98-98
-6	3679	3565*/72-83-85	3710*/78-86-88	3748*/79-86-88	3784*/79-86-88
			3727**82-91-93	3766**86-95-96	3787**89-98-98
-8	3679	3574*/72-83-86	3714*/78-86-88	3752*/79-86-88	3787F/80-86-88
			3733**83-92-93	3772**87-96-97	3787**89-98-98
-10	3679	3583*/73-83-86	3718*/78-86-88	3756*/79-86-88	3787F/80-86-88
			3738**83-92-94	3778**87-97-97	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 950 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3901 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09L	13	268	0	17	330	0	19	361	0
	26	491	0	29	512	0	59	1201	0
	82	1626	0	87	1673	0	89	1677	0
	248	17290	0	258	17491	0	575	17612	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 09R EGLL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

HEATROW

LONDON

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2700	2620*/59-59-61	2722*/60-62-64	2753*/61-62-64	2783*/61-62-64
			2728**64-65-67	2757**67-69-70	2785**71-73-74
58A	2758	2667*/60-60-63	2770*/62-63-65	2802*/62-63-65	2834*/63-63-65
			2779**65-66-68	2808**68-70-71	2836**72-74-75
56A	2825	2721*/61-62-64	2826*/63-65-67	2859*/64-65-67	2891*/64-65-67
			2838**67-67-69	2868**69-71-72	2896**73-75-76
54	2895	2770*/61-63-66	2895*/66-67-69	2917*/65-67-69	2950*/66-67-69
			2899**67-68-70	2929**70-72-73	2958**74-76-77
52	2973	2821*/61-64-67	2965*/69-69-71	2982*/67-69-72	3016*/67-69-72
				2999**72-73-74	3029**75-77-78
50	3049	2871*/62-66-69	3026*/70-71-73	3049*/69-72-74	3080*/69-72-74
				3067**73-74-75	3098**76-78-79
48	3128	2921*/62-67-70	3081*/70-72-75	3128*/72-74-76	3145*/70-74-76
				3132**73-74-76	3164**76-78-80
46	3205	2968*/62-68-72	3133*/71-74-76	3188*/73-75-78	3207*/72-76-78
					3228**76-79-80
44	3281	3013*/63-69-73	3183*/71-75-78	3239*/74-77-79	3281*/75-78-80
					3291**77-79-81
42	3355	3058*/63-70-75	3231*/71-76-79	3290*/74-78-80	3350*/77-80-82
40	3431	3102*/63-72-76	3278*/71-77-80	3340*/74-79-82	3402*/77-81-83
38	3505	3142*/63-73-77	3323*/72-78-81	3387*/74-80-83	3475*/77-81-83
36	3573	3184*/63-74-78	3370*/72-79-83	3450*/74-81-83	3527*/77-82-84
34	3638	3221*/64-74-79	3412*/72-80-84	3507*/74-81-84	3570*/77-83-85
32	3667	3241*/64-75-80	3450*/72-80-84	3530*/75-82-85	3594*/78-83-86
30	3668	3249*/64-75-80	3465*/72-80-84	3538*/75-82-85	3602*/78-84-86
28	3668	3257*/64-75-80	3480*/72-80-84	3547*/75-82-85	3611*/78-84-87
26	3669	3265*/65-76-80	3491*/73-80-84	3556*/76-82-85	3620*/79-84-87
24	3670	3274*/65-76-81	3500*/73-81-84	3564*/76-83-85	3628*/79-85-87
22	3671	3282*/66-76-81	3509*/73-81-84	3573*/76-83-86	3637*/80-85-87
20	3672	3291*/66-76-81	3517*/74-81-84	3582*/77-83-86	3646*/80-85-87
18	3672	3299*/66-77-81	3526*/74-81-84	3590*/77-83-86	3655*/80-85-88
16	3673	3308*/67-77-81	3535*/75-82-85	3599*/78-84-86	3663*/81-86-88
14	3674	3316*/67-77-82	3543*/75-82-85	3608*/78-84-86	3672*/81-86-88
12	3675	3325*/67-77-82	3552*/75-82-85	3617*/79-84-87	3675*/81-86-88
					3679**82-86-88
10	3676	3334*/68-78-82	3561*/76-82-85	3626*/79-84-87	3676*/80-86-88
					3685**82-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 980 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	12	296	0	17	319	0	21	334	0
	27	365	0	32	392	0	35	462	0
	40	479	0	240	17300	0	289	17350	0
	449	17773	0	502	33542	0	620	46964	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 09R EGLL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

HEATROW

LONDON

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
8	3677	3343*/68-78-82	3570*/76-83-86	3635*/79-85-87	3677*/80-86-88 3691**83-87-89
6	3677	3352*/68-78-82	3579*/77-83-86	3644*/80-85-87	3677*/79-86-88 3697**83-88-90
4	3678	3361*/69-78-83	3588*/77-83-86	3652*/80-85-88	3679*/79-86-88 3703**84-89-90
2	3678	3370*/69-79-83	3596*/78-84-86	3661*/81-85-88	3684*/79-86-88 3708**84-89-91
0	3678	3379*/70-79-83	3605*/78-84-86	3670*/81-86-88	3690*/79-86-88 3714**85-90-91
-2	3679	3388*/70-79-83	3614*/78-84-87	3679*/82-86-88	3696*/79-86-88 3720**85-90-92
-4	3679	3396*/70-80-83	3623*/79-84-87	3679*/81-86-88 3685**82-87-89	3702*/79-86-88 3726**86-91-92
-6	3679	3405*/71-80-84	3632*/79-85-87	3679*/81-86-88 3690**83-87-89	3707*/79-86-88 3732**87-92-93
-8	3679	3417*/71-80-84	3640*/80-85-87	3679*/80-86-88 3696**83-88-90	3713*/80-86-88 3738**87-92-93
-10	3679	3432*/71-80-84	3649*/80-85-87	3679*/79-86-88 3702**84-88-90	3719*/80-86-88 3743**88-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 980 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	12	296	0	17	319	0	21	334	0
	27	365	0	32	392	0	35	462	0
	40	479	0	240	17300	0	289	17350	0
	449	17773	0	502	33542	0	620	46964	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 27L EGLL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

HEATROW

LONDON

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2700	2612*/59-59-61	2711*/60-62-64	2739*/61-62-64	2766*/61-62-64
			2720**64-65-67	2752**67-69-70	2780**70-73-73
58A	2758	2659*/59-60-63	2761*/62-63-65	2790*/62-63-65	2818*/63-63-65
			2770**66-66-67	2803**68-69-71	2831**71-73-74
56A	2825	2713*/61-61-64	2825*/64-65-67	2848*/64-65-67	2878*/64-65-67
			2829**66-66-68	2862**69-70-72	2890**72-74-75
54	2895	2764*/61-63-66	2889*/67-67-69	2909*/65-67-69	2939*/66-67-69
				2924**70-71-73	2953**73-75-76
52	2973	2816*/62-64-67	2958*/69-69-71	2976*/67-69-72	3007*/67-69-72
				2993**71-72-74	3024**74-76-77
50	3049	2865*/62-66-69	3021*/70-71-73	3049*/69-72-74	3074*/69-72-74
				3061**73-73-75	3092**75-77-78
48	3128	2915*/62-67-70	3077*/70-72-75	3128*/73-74-76	3139*/70-74-76
					3162**77-78-79
46	3205	2961*/63-68-72	3128*/71-73-76	3183*/73-75-77	3205*/72-76-78
					3225**77-78-80
44	3281	3006*/63-69-73	3177*/71-75-77	3234*/74-76-79	3281*/75-78-80
					3288**77-79-81
42	3355	3051*/63-70-74	3225*/71-76-79	3284*/74-78-80	3345*/77-79-82
40	3431	3094*/63-71-76	3272*/72-77-80	3334*/74-79-82	3396*/77-81-83
38	3505	3134*/63-72-77	3316*/72-78-81	3380*/75-80-83	3466*/77-81-83
36	3573	3176*/64-73-78	3362*/72-79-82	3439*/75-80-83	3521*/77-82-84
34	3638	3212*/64-74-79	3404*/72-80-83	3500*/74-81-84	3564*/77-83-85
32	3667	3232*/64-75-80	3437*/72-80-84	3523*/75-81-84	3587*/78-83-86
30	3668	3240*/64-75-80	3452*/73-80-84	3532*/75-82-85	3596*/78-84-86
28	3668	3249*/65-75-80	3467*/73-80-84	3540*/75-82-85	3605*/78-84-86
26	3669	3257*/65-75-80	3483*/73-80-84	3549*/76-82-85	3614*/79-84-87
24	3670	3265*/65-76-80	3493*/73-80-84	3558*/76-82-85	3622*/79-84-87
22	3671	3273*/66-76-81	3502*/74-81-84	3567*/77-83-85	3631*/80-85-87
20	3672	3282*/66-76-81	3510*/74-81-84	3575*/77-83-86	3640*/80-85-87
18	3672	3290*/66-76-81	3519*/74-81-84	3584*/77-83-86	3649*/81-85-87
16	3673	3299*/67-77-81	3528*/75-81-85	3593*/78-83-86	3658*/81-85-88
14	3674	3308*/67-77-81	3537*/75-82-85	3602*/78-84-86	3667*/81-86-88
12	3675	3317*/68-77-82	3546*/76-82-85	3611*/79-84-87	3675*/82-86-88
10	3676	3326*/68-77-82	3555*/76-82-85	3620*/79-84-87	3676*/81-86-88
					3682**82-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27L	22	207	0	23	226	0	39	414	0
	78	1156	0	250	11440	0	334	32836	0
	387	33781	0	388	50668	0	401	50669	0
	437	53607	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 27L EGLL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

HEATROW

LONDON

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
8	3677	3335*/68-78-82	3564*/76-83-85	3629*/80-85-87	3677*/81-86-88 3688**83-87-89
6	3677	3344*/69-78-82	3573*/77-83-86	3638*/80-85-87	3677*/80-86-88 3694**83-88-90
4	3678	3353*/69-78-82	3582*/77-83-86	3647*/80-85-87	3678*/80-86-88 3699**84-88-90
2	3678	3362*/69-79-83	3590*/78-83-86	3656*/81-85-88	3678*/79-86-88 3705**84-89-91
0	3678	3371*/70-79-83	3599*/78-84-86	3665*/81-86-88	3683*/79-86-88 3711**85-89-91
-2	3679	3379*/70-79-83	3608*/79-84-86	3674*/82-86-88	3689*/79-86-88 3717**86-90-92
-4	3679	3389*/71-79-83	3617*/79-84-87	3679*/82-86-88 3681**82-86-88	3695*/79-86-88 3723**86-91-92
-6	3679	3398*/71-80-83	3626*/80-84-87	3679*/81-86-88 3687**83-87-89	3700*/79-86-88 3729**87-91-93
-8	3679	3407*/71-80-84	3635*/80-85-87	3679*/81-86-88 3693**83-87-89	3706*/79-86-88 3735**87-92-93
-10	3679	3419*/72-80-84	3644*/80-85-87	3679*/80-86-88 3699**84-88-90	3711*/80-86-88 3740**88-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27L	22	207	0	23	226	0	39	414	0
	78	1156	0	250	11440	0	334	32836	0
	387	33781	0	388	50668	0	401	50669	0
	437	53607	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 27R EGLL

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

HEATROW

LONDON

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2700	2624*/59-59-61	2717*/60-62-64	2745*/61-62-64	2772*/61-62-64
			2728**64-66-67	2760**68-70-71	2788**71-74-74
58A	2758	2673*/60-60-63	2767*/62-63-65	2796*/62-63-65	2824*/63-63-65
			2778**65-66-68	2811**69-70-71	2840**72-75-75
56A	2825	2729*/62-62-65	2825*/63-65-67	2855*/64-65-67	2884*/64-65-67
			2837**67-67-69	2870**70-71-72	2900**73-76-76
54	2895	2785*/64-64-66	2895*/66-67-69	2915*/65-67-69	2945*/66-67-69
			2898**68-68-70	2932**71-72-74	2962**74-76-77
52	2973	2849*/65-65-68	2966*/69-69-71	2983*/67-69-72	3014*/67-69-72
				3002**72-73-75	3033**75-77-78
50	3049	2908*/65-67-70	3033*/71-71-73	3049*/68-72-74	3081*/69-72-74
				3070**73-74-76	3103**76-78-80
48	3128	2961*/66-68-72	3099*/73-73-75	3128*/72-74-76	3148*/70-74-76
				3139**75-75-77	3172**78-79-81
46	3205	3010*/66-70-73	3162*/74-75-77	3204*/76-76-78	3211*/72-76-78
					3240**79-80-82
44	3281	3057*/66-71-74	3219*/74-76-79	3268*/77-78-80	3281*/74-78-80
					3308**81-81-83
42	3355	3104*/66-72-76	3270*/75-77-80	3327*/78-79-81	3355*/77-80-82
					3374**81-82-84
40	3431	3149*/66-73-77	3321*/75-78-81	3380*/78-80-83	3431*/79-81-83
					3444**80-82-84
38	3505	3191*/67-74-78	3369*/75-79-82	3440*/78-81-83	3505*/79-81-84
					3512**80-82-84
36	3573	3234*/67-75-79	3421*/75-80-83	3506*/77-81-84	3565*/81-83-85
34	3638	3273*/67-76-81	3490*/75-80-84	3550*/78-82-85	3610*/81-84-86
32	3667	3294*/67-77-81	3512*/75-81-84	3574*/78-83-86	3635*/81-85-87
30	3668	3302*/67-77-81	3520*/75-81-84	3582*/78-83-86	3643*/81-85-87
28	3668	3310*/68-77-81	3529*/76-82-85	3590*/79-83-86	3651*/82-85-87
26	3669	3319*/68-77-82	3537*/76-82-85	3598*/79-84-86	3659*/82-85-88
24	3670	3327*/68-78-82	3545*/77-82-85	3606*/80-84-86	3667*/83-86-88
22	3671	3335*/69-78-82	3553*/77-82-85	3614*/80-84-87	3671*/83-86-88
					3674**83-86-88
20	3672	3343*/69-78-82	3561*/77-82-85	3622*/80-84-87	3672*/82-86-88
					3679**84-87-89
18	3672	3352*/70-78-82	3569*/78-83-86	3630*/81-85-87	3672*/82-86-88
					3685**84-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 720 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3882 M LONG WITH 78 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27R	9	247	0	25	375	0	42	451	0
	44	485	0	50	503	0	53	518	0
	68	843	0	76	950	0	240	36342	0
	329	43268	0	332	43419	0	450	55542	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 27R EGLL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

HEATROW

LONDON

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
16	3673	3360*/70-78-83	3577*/78-83-86	3638*/81-85-87	3673*/81-86-88 3691**85-88-90
14	3674	3368*/70-79-83	3586*/79-83-86	3647*/82-85-87	3674*/81-86-88 3697**85-88-90
12	3675	3377*/71-79-83	3594*/79-83-86	3655*/82-85-88	3675*/80-86-88 3703**86-89-91
10	3676	3386*/71-79-83	3602*/80-84-86	3663*/83-86-88	3676*/80-86-88 3709**86-89-91
8	3677	3394*/71-79-83	3610*/80-84-87	3671*/83-86-88	3677*/79-86-88 3715**87-90-92
6	3677	3403*/72-80-84	3619*/80-84-87	3677*/83-86-88 3679**84-86-88	3678*/79-86-88 3721**87-91-92
4	3678	3411*/72-80-84	3627*/81-84-87	3678*/83-86-88 3685**84-87-89	3684*/79-86-88 3727**88-91-93
2	3678	3425*/73-80-84	3635*/81-85-87	3678*/82-86-88 3691**85-87-89	3689*/79-86-88 3733**88-92-93
0	3678	3438*/73-80-84	3643*/82-85-87	3678*/82-86-88 3696**85-88-90	3695*/79-86-88 3739**89-92-94
-2	3679	3452*/73-80-84	3651*/82-85-88	3679*/81-86-88 3702**86-88-90	3700*/79-86-88 3745**90-93-94
-4	3679	3465*/73-80-84	3659*/83-85-88	3679*/81-86-88 3708**86-89-91	3705*/79-86-88 3750**90-94-95
-6	3679	3478*/74-80-84	3666*/83-86-88	3679*/80-86-88 3714**87-90-91	3710*/79-86-88 3756**91-94-95
-8	3679	3490*/74-80-84	3673*/84-86-88	3679*/80-86-88 3720**87-90-92	3715*/80-86-88 3762**91-95-96
-10	3679	3498*/74-81-84	3679*/84-86-88 3680**84-86-88	3679*/79-86-88 3726**88-91-92	3720*/80-86-88 3768**92-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 730 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3882 M LONG WITH 78 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27R	9	247	0	25	375	0	42	451	0
	44	485	0	50	503	0	53	518	0
	68	843	0	76	950	0	240	36342	0
	329	43268	0	332	43419	0	450	55542	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04L EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2707	2477F/53-54-57	2617*/59-59-61	2650*/60-60-62	2682*/61-61-63
				2653**63-63-65	2687**64-65-67
58A	2765	2515F/54-55-58	2667*/60-60-63	2701*/61-61-64	2734*/62-62-65
				2703**63-63-65	2737**66-66-68
56A	2832	2559F/55-56-60	2725F/61-62-65	2760*/63-63-65	2793*/64-64-66
					2795**66-66-68
54	2902	2605F/56-57-61	2773F/63-63-66	2820*/65-65-67	2855*/66-66-68
					2856**67-67-69
52	2981	2656F/58-59-63	2826F/64-65-68	2885F/66-67-69	2923*/68-68-70
50	3058	2706F/59-60-65	2878F/65-66-69	2938F/67-68-71	2989*/70-70-72
48	3137	2755F/60-61-66	2929F/67-67-71	2990F/69-69-72	3052F/71-71-74
46	3214	2801F/61-63-67	2978F/68-68-72	3040F/70-71-74	3103F/72-73-75
44	3290	2848F/62-64-69	3027F/69-70-74	3089F/71-72-75	3153F/73-74-77
42	3364	2894F/64-65-70	3075F/70-71-75	3139F/72-73-77	3203F/75-75-78
40	3441	2939F/65-66-72	3122F/71-72-76	3186F/73-74-78	3252F/76-76-80
38	3513	2980F/66-67-73	3166F/72-73-78	3230F/74-75-79	3298F/77-77-81
36	3581	3022F/66-68-74	3212F/73-74-79	3277F/76-77-81	3347F/78-79-82
34	3647	3053F/67-69-75	3252F/74-75-80	3320F/76-77-82	3391F/79-79-83
32	3670	3070F/67-69-75	3272F/75-76-81	3341F/77-78-82	3414F/79-80-84
30	3671	3079F/67-70-76	3282F/75-76-81	3352F/77-78-82	3434F/79-80-84
28	3672	3087F/68-70-76	3292F/75-77-81	3362F/78-79-83	3455F/79-80-84
26	3673	3096F/68-70-76	3302F/76-77-81	3372F/78-79-83	3476F/79-80-84
24	3674	3105F/68-71-76	3312F/76-77-81	3383F/78-79-83	3492F/80-80-84
22	3675	3114F/68-71-77	3322F/76-77-82	3393F/79-79-83	3503F/80-81-84
20	3675	3123F/69-71-77	3332F/77-78-82	3404F/79-80-84	3513F/80-81-84
18	3676	3133F/69-71-77	3343F/77-78-82	3418F/79-80-84	3524F/81-81-84
16	3677	3142F/69-72-77	3353F/77-78-82	3439F/79-80-84	3534F/81-82-85
14	3678	3151F/70-72-78	3364F/78-79-83	3459F/79-80-84	3545F/81-82-85
12	3679	3161F/70-72-78	3375F/78-79-83	3482F/80-80-84	3556F/82-82-85
10	3680	3171F/70-73-78	3386F/78-79-83	3495F/80-80-84	3567F/82-83-86
8	3681	3180F/71-73-78	3396F/79-79-83	3506F/80-81-84	3578F/83-83-86
6	3681	3190F/71-73-79	3407F/79-80-84	3517F/81-81-84	3590F/83-83-86
4	3682	3200F/72-74-79	3425F/79-80-84	3528F/81-81-85	3595*/83-83-86
2	3682	3209F/72-74-79	3446F/79-80-84	3539F/81-82-85	3600*/84-84-86
0	3683	3219F/72-74-79	3466F/79-80-84	3549F/82-82-85	3605*/84-84-86
					3606**85-85-87
-2	3683	3229F/73-75-80	3488F/80-80-84	3560F/82-82-85	3610*/84-84-87
					3611**85-85-88
-4	3683	3239F/73-75-80	3499F/80-81-84	3569*/83-83-86	3615*/84-84-87
					3617**86-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3000 M LONG WITH 0 M OF CLEARWAY AND 570 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	79	1577	0	99	1608	0	105	1644	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04L EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
-6	3683	3249F/73-75-80	3509F/80-81-84	3574*/83-83-86	3619*/84-84-87 3622**87-87-89
-8	3683	3260F/74-75-80	3520F/81-81-84	3579*/83-83-86	3624*/84-84-87 3627**87-87-89
-10	3683	3270F/74-76-81	3532F/81-82-85	3584*/83-83-86 3585**85-85-87	3628*/84-84-87 3633**88-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3000 M LONG WITH 0 M OF CLEARWAY AND 570 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	79	1577	0	99	1608	0	105	1644	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04LS EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

	C	100KG	-10	0	10	20
60A	2707	2440*/52-52-56	2557*/57-57-60	2595*/58-58-61	2632*/59-59-62	
58A	2765	2484*/54-54-58	2604*/58-58-61	2643*/59-59-62	2681*/61-61-63	
56A	2832	2535*/55-55-59	2658*/59-59-63	2698*/61-61-64	2738*/62-62-65	
54	2902	2588*/57-57-61	2714*/61-61-64	2755*/62-62-66	2796*/64-64-67	
52	2981	2646*/58-58-63	2774*/63-63-66	2817*/64-64-67	2859*/66-66-68	
50	3058	2703*/60-60-64	2834*/64-64-68	2878*/66-66-69	2921*/67-67-70	
48	3137	2755F/60-61-66	2894*/66-66-70	2939*/68-68-71	2983*/69-69-72	
46	3214	2801F/61-63-67	2951*/68-68-71	2997*/69-69-73	3043*/71-71-74	
44	3290	2848F/62-64-69	3007*/69-69-73	3055*/71-71-74	3102*/72-72-76	
42	3364	2894F/64-65-70	3063*/71-71-75	3111*/72-72-76	3159*/74-74-77	
40	3441	2939F/65-66-72	3116*/72-72-76	3165*/74-74-77	3214*/75-75-79	
38	3513	2980F/66-67-73	3166F/73-73-78	3216*/75-75-79	3266*/76-76-80	
36	3581	3022F/66-68-74	3212F/73-74-79	3269*/76-76-80	3321*/78-78-82	
34	3647	3053F/67-69-75	3252F/74-75-80	3318*/77-77-82	3372*/79-79-83	
32	3670	3070F/67-69-75	3272F/75-76-81	3339*/78-78-82	3394*/79-79-83	
30	3671	3079F/67-70-76	3282F/75-76-81	3346*/78-78-82	3401*/80-80-83	
28	3672	3087F/68-70-76	3292F/75-77-81	3353*/78-78-82	3407*/80-80-84	
26	3673	3096F/68-70-76	3302F/76-77-81	3360*/78-78-83	3416*/80-80-84	
24	3674	3105F/68-71-76	3312F/76-77-81	3366*/79-79-83	3426*/80-80-84	
22	3675	3114F/68-71-77	3318*/77-77-82	3373*/79-79-83	3437*/80-80-84	
20	3675	3123F/69-71-77	3325*/77-77-82	3380*/79-79-83	3447*/80-80-84	
18	3676	3133F/69-71-77	3332*/77-78-82	3386*/79-79-83	3457*/80-80-84	
16	3677	3142F/69-72-77	3339*/78-78-82	3393*/79-79-83	3467*/80-80-84	
14	3678	3151F/70-72-78	3345*/78-78-82	3400*/80-80-83	3477*/80-80-84	
12	3679	3161F/70-72-78	3353*/78-78-82	3407*/80-80-84	3486*/80-80-84	
10	3680	3171F/70-73-78	3359*/78-78-83	3416*/80-80-84	3493*/80-80-84	
8	3681	3180F/71-73-78	3366*/79-79-83	3426*/80-80-84	3500*/81-81-84	
6	3681	3190F/71-73-79	3373*/79-79-83	3437*/80-80-84	3506*/81-81-84	
4	3682	3200F/72-74-79	3380*/79-79-83	3446*/80-80-84	3512*/81-81-84	
2	3682	3209F/72-74-79	3386*/79-79-83	3456*/80-80-84	3519*/81-81-84	
0	3683	3219F/72-74-79	3393*/79-79-83	3466*/80-80-84	3525*/81-81-84	
-2	3683	3229F/73-75-80	3399*/80-80-83	3475*/80-80-84	3531*/81-82-85	
-4	3683	3238*/73-75-80	3406*/80-80-84	3484*/80-80-84	3537*/82-82-85	
-6	3683	3246*/73-75-80	3413*/80-80-84	3491*/80-80-84	3543*/82-82-85	
-8	3683	3254*/74-75-80	3423*/80-80-84	3497*/80-80-84	3549*/82-82-85	
-10	3683	3261*/74-76-80	3433*/80-80-84	3503*/81-81-84	3555*/82-82-85	

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3000 M LONG WITH 0 M OF CLEARWAY AND 570 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04LS	68	810	0	79	1577	0	99	1608	0
	105	1644	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 17 FT

RUNWAY 04R EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2573F/54-57-60	2741*/61-62-64	2776*/61-62-64	2809*/61-62-64
			2725**62-64-66	2751**65-68-69	2776**68-71-72
58A	2765	2610F/55-58-61	2782F/62-64-65	2823*/62-64-65	2858*/63-64-65
			2773**62-65-66	2799**65-68-69	2824**69-72-73
56A	2832	2650F/55-59-62	2824F/63-65-67	2877*/64-65-67	2913*/64-65-67
				2855**66-69-70	2881**69-72-73
54	2902	2690F/56-60-64	2867F/63-66-69	2929F/65-67-69	2970*/66-67-69
				2914**66-69-71	2941**69-73-74
52	2981	2735F/56-61-65	2914F/64-67-70	2976F/66-70-72	3033*/67-70-72
					3007**70-73-75
50	3058	2778F/57-63-66	2960F/64-69-71	3023F/67-71-73	3088F/69-72-74
					3071**70-73-75
48	3137	2821F/57-64-68	3006F/65-70-73	3069F/67-72-74	3135F/70-74-76
46	3214	2862F/58-65-69	3048F/65-71-74	3113F/68-73-76	3179F/70-75-77
44	3290	2901F/58-66-70	3090F/66-72-75	3157F/68-74-77	3224F/71-76-79
42	3364	2941F/58-67-71	3133F/66-73-76	3199F/69-75-78	3267F/71-77-80
40	3441	2980F/59-67-73	3173F/67-74-78	3241F/69-76-79	3311F/72-78-81
38	3513	3015F/59-68-74	3211F/67-75-79	3279F/70-77-80	3352F/72-79-82
36	3581	3052F/59-69-75	3251F/67-76-80	3321F/70-78-82	3395F/73-80-83
34	3647	3085F/60-70-76	3286F/68-76-81	3359F/70-79-82	3453F/73-80-84
32	3670	3102F/60-70-76	3305F/68-77-81	3378F/71-79-83	3489F/73-80-84
30	3671	3110F/60-71-76	3315F/68-77-82	3388F/71-79-83	3499F/73-81-84
28	3672	3119F/60-71-77	3325F/69-77-82	3399F/71-80-83	3510F/73-81-84
26	3673	3128F/61-71-77	3335F/69-78-82	3410F/72-80-84	3520F/74-81-84
24	3674	3137F/61-72-77	3345F/69-78-82	3428F/72-80-84	3531F/74-82-85
22	3675	3146F/61-72-77	3356F/70-78-82	3448F/72-80-84	3542F/74-82-85
20	3675	3155F/62-72-78	3366F/70-79-83	3468F/72-80-84	3552F/75-82-85
18	3676	3164F/62-72-78	3377F/70-79-83	3488F/72-80-84	3563F/75-83-85
16	3677	3173F/62-73-78	3387F/71-79-83	3499F/73-81-84	3574F/75-83-86
14	3678	3183F/63-73-78	3398F/71-80-83	3510F/73-81-84	3585F/76-83-86
12	3679	3192F/63-73-79	3409F/71-80-84	3521F/73-81-84	3596F/76-84-86
10	3680	3202F/63-74-79	3428F/71-80-84	3532F/74-82-85	3608F/76-84-86
8	3681	3212F/64-74-79	3449F/72-80-84	3543F/74-82-85	3619F/77-84-87
6	3681	3221F/64-74-79	3469F/72-80-84	3554F/74-82-85	3630F/77-85-87
4	3682	3231F/64-75-80	3489F/72-80-84	3565F/75-83-85	3642F/78-85-87
2	3682	3241F/65-75-80	3500F/72-81-84	3576F/75-83-86	3653F/78-85-88
0	3683	3251F/65-75-80	3511F/73-81-84	3587F/75-83-86	3665F/78-86-88
-2	3683	3261F/65-76-80	3522F/73-81-84	3598F/76-84-86	3677F/79-86-88
-4	3683	3271F/66-76-81	3533F/73-82-85	3610F/76-84-87	3688F/79-86-88
					3686**79-86-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04R	18	415	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04R EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3683	3281F/66-76-81	3544F/74-82-85	3621F/77-84-87	3700F/79-86-88 3691**80-87-89
-8	3683	3291F/66-76-81	3555F/74-82-85	3633F/77-85-87	3712F/80-86-88 3697**80-88-90
-10	3683	3302F/67-77-81	3567F/74-83-85	3645F/77-85-87	3724F/80-86-88 3703**81-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

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RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

04R	18	415	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04RS EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2573F/54-57-60	2696*/61-61-63	2721*/61-62-64	2747*/61-62-64
			2700**63-64-65	2735**66-67-68	2769**68-71-71
58A	2765	2610F/55-58-61	2748*/63-63-65	2773*/62-64-65	2800*/63-64-65
			2749**63-64-66	2785**66-67-69	2819**69-71-72
56A	2832	2650F/55-59-62	2804*/63-65-67	2832*/64-65-67	2860*/64-65-67
				2842**66-67-68	2876**69-71-72
54	2902	2690F/56-60-64	2859*/63-66-68	2900*/66-67-69	2923*/66-67-69
					2935**69-72-73
52	2981	2735F/56-61-65	2914F/64-67-70	2962*/67-69-71	2993*/67-70-72
					3001**70-72-74
50	3058	2778F/57-63-66	2960F/64-69-71	3022*/67-71-73	3060*/69-72-74
					3065**70-73-75
48	3137	2821F/57-64-68	3006F/65-70-73	3069F/67-72-74	3127*/70-74-76
46	3214	2862F/58-65-69	3048F/65-71-74	3113F/68-73-76	3179F/70-75-77
44	3290	2901F/58-66-70	3090F/66-72-75	3157F/68-74-77	3224F/71-76-79
42	3364	2941F/58-67-71	3133F/66-73-76	3199F/69-75-78	3267F/71-77-80
40	3441	2980F/59-67-73	3173F/67-74-78	3241F/69-76-79	3311F/72-78-81
38	3513	3015F/59-68-74	3211F/67-75-79	3279F/70-77-80	3352F/72-79-82
36	3581	3052F/59-69-75	3251F/67-76-80	3321F/70-78-82	3395F/73-80-83
34	3647	3085F/60-70-76	3286F/68-76-81	3359F/70-79-82	3453F/73-80-84
32	3670	3102F/60-70-76	3305F/68-77-81	3378F/71-79-83	3489F/73-80-84
30	3671	3110F/60-71-76	3315F/68-77-82	3388F/71-79-83	3499F/73-81-84
28	3672	3119F/60-71-77	3325F/69-77-82	3399F/71-80-83	3510F/73-81-84
26	3673	3128F/61-71-77	3335F/69-78-82	3410F/72-80-84	3520F/74-81-84
24	3674	3137F/61-72-77	3345F/69-78-82	3428F/72-80-84	3531F/74-82-85
22	3675	3146F/61-72-77	3356F/70-78-82	3448F/72-80-84	3542F/74-82-85
20	3675	3155F/62-72-78	3366F/70-79-83	3468F/72-80-84	3552F/75-82-85
18	3676	3164F/62-72-78	3377F/70-79-83	3488F/72-80-84	3563F/75-83-85
16	3677	3173F/62-73-78	3387F/71-79-83	3499F/73-81-84	3574F/75-83-86
14	3678	3183F/63-73-78	3398F/71-80-83	3510F/73-81-84	3585F/76-83-86
12	3679	3192F/63-73-79	3409F/71-80-84	3521F/73-81-84	3596F/76-84-86
10	3680	3202F/63-74-79	3428F/71-80-84	3532F/74-82-85	3608F/76-84-86
8	3681	3212F/64-74-79	3449F/72-80-84	3543F/74-82-85	3619F/77-84-87
6	3681	3221F/64-74-79	3469F/72-80-84	3554F/74-82-85	3630F/77-85-87
4	3682	3231F/64-75-80	3489F/72-80-84	3565F/75-83-85	3642F/78-85-87
2	3682	3241F/65-75-80	3500F/72-81-84	3576F/75-83-86	3653F/78-85-88
0	3683	3251F/65-75-80	3511F/73-81-84	3587F/75-83-86	3664*/78-86-88
-2	3683	3261F/65-76-80	3522F/73-81-84	3598F/76-84-86	3671*/79-86-88
-4	3683	3271F/66-76-81	3533F/73-82-85	3610F/76-84-87	3677*/79-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04RS	18	415	0	107	1878	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04RS EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-6	3683	3281F/66-76-81	3544F/74-82-85	3621F/77-84-87	3683*/80-86-88
-8	3683	3291F/66-76-81	3555F/74-82-85	3633F/77-85-87	3685*/80-86-88
					3690**80-87-89
-10	3683	3302F/67-77-81	3567F/74-83-85	3643*/77-85-87	3689*/80-86-88
					3696**81-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04RS	18	415	0	107	1878	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 12

EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2354F/45-49-54	2532F/53-56-59	2593F/56-58-61	2655F/59-60-62
58A	2765	2389F/46-50-55	2569F/54-57-60	2631F/57-59-62	2694F/60-61-64
56A	2832	2429F/47-51-56	2612F/55-58-61	2675F/58-60-63	2739F/61-62-65
54	2902	2471F/48-52-58	2656F/56-59-63	2720F/59-61-65	2782F/62-63-66
52	2981	2517F/49-54-59	2705F/57-60-64	2766F/60-62-66	2828F/62-65-68
50	3058	2563F/50-55-61	2748F/58-61-66	2809F/60-64-67	2872F/63-66-69
48	3137	2608F/50-56-62	2791F/58-63-67	2853F/61-65-69	2916F/63-67-70
46	3214	2649F/51-57-63	2831F/59-64-68	2894F/61-66-70	2958F/64-68-72
44	3290	2686F/52-58-64	2870F/59-64-69	2934F/62-67-71	3000F/64-69-73
42	3364	2724F/52-59-66	2910F/60-65-71	2975F/62-68-72	3041F/65-70-74
40	3441	2759F/52-60-67	2948F/60-66-72	3013F/63-69-74	3081F/65-71-75
38	3513	2792F/53-61-68	2983F/61-67-73	3049F/63-69-75	3117F/66-72-76
36	3581	2827F/53-62-69	3020F/61-68-74	3087F/64-70-76	3156F/66-73-77
34	3647	2857F/53-62-70	3052F/61-69-75	3120F/64-71-77	3189F/67-73-78
32	3670	2873F/53-63-70	3069F/61-69-75	3137F/64-72-77	3207F/67-74-79
30	3671	2881F/54-63-71	3078F/62-70-76	3147F/65-72-77	3217F/67-74-79
28	3672	2889F/54-63-71	3087F/62-70-76	3156F/65-72-78	3227F/68-74-79
26	3673	2897F/54-64-71	3096F/62-70-76	3165F/65-73-78	3236F/68-75-80
24	3674	2906F/55-64-71	3105F/63-71-76	3175F/66-73-78	3246F/68-75-80
22	3675	2914F/55-64-71	3115F/63-71-77	3185F/66-73-78	3256F/69-75-80
20	3675	2923F/55-64-72	3124F/63-71-77	3194F/66-73-79	3266F/69-76-80
18	3676	2931F/55-65-72	3133F/64-71-77	3204F/67-74-79	3277F/69-76-81
16	3677	2940F/56-65-72	3143F/64-72-77	3214F/67-74-79	3287F/70-76-81
14	3678	2948F/56-65-72	3153F/64-72-78	3224F/67-74-79	3298F/70-77-81
12	3679	2957F/56-66-73	3162F/65-72-78	3234F/68-75-80	3309F/70-77-81
10	3680	2966F/57-66-73	3172F/65-73-78	3244F/68-75-80	3320F/71-77-82
8	3681	2975F/57-66-73	3182F/65-73-78	3255F/68-75-80	3331F/71-78-82
6	3681	2984F/57-67-73	3192F/66-73-79	3265F/69-76-80	3342F/71-78-82
4	3682	2993F/58-67-73	3202F/66-74-79	3275F/69-76-81	3353F/72-78-82
2	3682	3002F/58-67-74	3212F/66-74-79	3286F/69-76-81	3364F/72-79-83
0	3683	3011F/58-67-74	3222F/67-74-79	3297F/70-77-81	3376F/72-79-83
-2	3683	3020F/59-68-74	3233F/67-75-80	3308F/70-77-81	3387F/73-79-83
-4	3683	3030F/59-68-74	3243F/68-75-80	3319F/70-77-82	3399F/73-80-83
-6	3683	3039F/59-68-75	3253F/68-75-80	3330F/71-78-82	3410F/74-80-84
-8	3683	3049F/60-69-75	3264F/68-76-80	3342F/71-78-82	3431F/74-80-84
-10	3683	3058F/60-69-75	3274F/69-76-81	3353F/71-78-82	3454F/74-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

12 NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 17 FT

RUNWAY 12S EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2354F/45-49-54	2532F/53-56-59	2593F/56-58-61	2653*/59-60-62
58A	2765	2389F/46-50-55	2569F/54-57-60	2631F/57-59-62	2694F/60-61-64
56A	2832	2429F/47-51-56	2612F/55-58-61	2675F/58-60-63	2739F/61-62-65
54	2902	2471F/48-52-58	2656F/56-59-63	2720F/59-61-65	2782F/62-63-66
52	2981	2517F/49-54-59	2705F/57-60-64	2766F/60-62-66	2828F/62-65-68
50	3058	2563F/50-55-61	2748F/58-61-66	2809F/60-64-67	2872F/63-66-69
48	3137	2608F/50-56-62	2791F/58-63-67	2853F/61-65-69	2916F/63-67-70
46	3214	2649F/51-57-63	2831F/59-64-68	2894F/61-66-70	2958F/64-68-72
44	3290	2686F/52-58-64	2870F/59-64-69	2934F/62-67-71	3000F/64-69-73
42	3364	2724F/52-59-66	2910F/60-65-71	2975F/62-68-72	3041F/65-70-74
40	3441	2759F/52-60-67	2948F/60-66-72	3013F/63-69-74	3081F/65-71-75
38	3513	2792F/53-61-68	2983F/61-67-73	3049F/63-69-75	3117F/66-72-76
36	3581	2827F/53-62-69	3020F/61-68-74	3087F/64-70-76	3156F/66-73-77
34	3647	2857F/53-62-70	3052F/61-69-75	3120F/64-71-77	3189F/67-73-78
32	3670	2873F/53-63-70	3069F/61-69-75	3137F/64-72-77	3207F/67-74-79
30	3671	2881F/54-63-71	3078F/62-70-76	3147F/65-72-77	3217F/67-74-79
28	3672	2889F/54-63-71	3087F/62-70-76	3156F/65-72-78	3227F/68-74-79
26	3673	2897F/54-64-71	3096F/62-70-76	3165F/65-73-78	3236F/68-75-80
24	3674	2906F/55-64-71	3105F/63-71-76	3175F/66-73-78	3246F/68-75-80
22	3675	2914F/55-64-71	3115F/63-71-77	3185F/66-73-78	3256F/69-75-80
20	3675	2923F/55-64-72	3124F/63-71-77	3194F/66-73-79	3266F/69-76-80
18	3676	2931F/55-65-72	3133F/64-71-77	3204F/67-74-79	3277F/69-76-81
16	3677	2940F/56-65-72	3143F/64-72-77	3214F/67-74-79	3287F/70-76-81
14	3678	2948F/56-65-72	3153F/64-72-78	3224F/67-74-79	3298F/70-77-81
12	3679	2957F/56-66-73	3162F/65-72-78	3234F/68-75-80	3309F/70-77-81
10	3680	2966F/57-66-73	3172F/65-73-78	3244F/68-75-80	3320F/71-77-82
8	3681	2975F/57-66-73	3182F/65-73-78	3255F/68-75-80	3331F/71-78-82
6	3681	2984F/57-67-73	3192F/66-73-79	3265F/69-76-80	3342F/71-78-82
4	3682	2993F/58-67-73	3202F/66-74-79	3275F/69-76-81	3353F/72-78-82
2	3682	3002F/58-67-74	3212F/66-74-79	3286F/69-76-81	3364F/72-79-83
0	3683	3011F/58-67-74	3222F/67-74-79	3297F/70-77-81	3376F/72-79-83
-2	3683	3020F/59-68-74	3233F/67-75-80	3308F/70-77-81	3387F/73-79-83
-4	3683	3030F/59-68-74	3243F/68-75-80	3319F/70-77-82	3399F/73-80-83
-6	3683	3039F/59-68-75	3253F/68-75-80	3330F/71-78-82	3410F/74-80-84
-8	3683	3049F/60-69-75	3264F/68-76-80	3342F/71-78-82	3431F/74-80-84
-10	3683	3058F/60-69-75	3274F/69-76-81	3353F/71-78-82	3454F/74-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12S	107	1707	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 17 FT

RUNWAY 22L EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2707	2568F/54-57-60	2707*/61-62-64	2738*/61-62-64	2769*/62-62-64
			2712**62-62-64	2742**65-66-68	2771**68-70-71
58A	2765	2606F/55-58-61	2757*/63-63-65	2787*/62-64-65	2819*/63-64-65
				2791**66-67-68	2819**69-71-72
56A	2832	2646F/55-59-62	2807*/63-65-67	2843*/64-65-67	2876*/64-65-67
				2847**66-67-69	2876**69-71-73
54	2902	2686F/56-60-64	2857*/63-66-68	2902*/65-67-69	2935*/66-67-69
				2905**66-68-70	2935**69-72-73
52	2981	2731F/56-61-65	2910F/64-67-70	2963*/66-69-71	3001*/67-70-72
					3001**70-72-74
50	3058	2774F/57-62-66	2956F/64-68-71	3017*/67-71-73	3064*/69-72-74
					3065**70-73-75
48	3137	2817F/57-63-68	3001F/65-70-73	3065F/67-72-74	3125*/70-74-76
46	3214	2858F/58-64-69	3044F/65-71-74	3109F/68-73-76	3175F/70-75-77
44	3290	2898F/58-65-70	3086F/66-72-75	3152F/68-74-77	3219F/71-76-79
42	3364	2937F/58-66-71	3128F/66-73-76	3195F/69-75-78	3263F/72-77-80
40	3441	2976F/59-67-73	3169F/67-74-78	3236F/69-76-79	3306F/72-78-81
38	3513	3011F/59-68-74	3207F/67-75-79	3275F/70-77-80	3348F/72-79-82
36	3581	3048F/59-69-75	3246F/67-76-80	3317F/70-78-81	3390F/73-80-83
34	3647	3081F/60-70-76	3281F/68-76-81	3354F/70-78-82	3444F/73-80-84
32	3670	3098F/60-70-76	3300F/68-77-81	3373F/71-79-83	3482F/73-80-84
30	3671	3106F/60-71-76	3310F/68-77-81	3384F/71-79-83	3495F/73-80-84
28	3672	3115F/61-71-77	3320F/69-77-82	3394F/71-79-83	3505F/73-81-84
26	3673	3124F/61-71-77	3330F/69-78-82	3405F/72-80-84	3516F/74-81-84
24	3674	3133F/61-71-77	3341F/69-78-82	3419F/72-80-84	3526F/74-81-84
22	3675	3142F/61-72-77	3351F/70-78-82	3439F/72-80-84	3537F/74-82-85
20	3675	3151F/62-72-78	3362F/70-79-83	3459F/72-80-84	3547F/75-82-85
18	3676	3160F/62-72-78	3372F/70-79-83	3480F/72-80-84	3558F/75-82-85
16	3677	3169F/62-73-78	3383F/71-79-83	3494F/73-80-84	3569F/75-83-86
14	3678	3179F/63-73-78	3393F/71-79-83	3505F/73-81-84	3580F/76-83-86
12	3679	3188F/63-73-78	3404F/71-80-84	3516F/73-81-84	3591F/76-83-86
10	3680	3198F/63-74-79	3419F/72-80-84	3527F/74-81-85	3602F/77-84-86
8	3681	3207F/64-74-79	3440F/72-80-84	3538F/74-82-85	3614F/77-84-87
6	3681	3217F/64-74-79	3460F/72-80-84	3549F/74-82-85	3625F/77-84-87
4	3682	3227F/64-74-79	3482F/72-80-84	3560F/75-82-85	3636F/78-85-87
2	3682	3237F/65-75-80	3495F/72-80-84	3571F/75-83-86	3648F/78-85-87
0	3683	3246F/65-75-80	3506F/73-81-84	3582F/76-83-86	3658*/78-85-88
-2	3683	3256F/65-75-80	3517F/73-81-84	3593F/76-83-86	3667*/79-86-88
-4	3683	3266F/66-76-80	3528F/73-81-85	3604F/76-84-86	3676*/79-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22L	22	423	0	25	466	0	40	707	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 22L EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3683	3276F/66-76-81	3539F/74-82-85	3616F/77-84-87	3683*/80-86-88 3684**80-86-88
-8	3683	3287F/66-76-81	3550F/74-82-85	3627F/77-84-87	3689*/80-86-88 3690**80-87-89
-10	3683	3297F/67-77-81	3561F/75-82-85	3637*/78-85-87	3695*/80-86-88 3696**81-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22L	22	423	0	25	466	0	40	707	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 22R EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2680*/58-61-63	2769*/61-62-64	2796*/61-62-64	2821*/62-62-64
			2771**67-71-71	2795**70-74-75	2817**74-78-78
58A	2765	2717F/58-62-64	2821*/62-64-65	2848*/62-64-65	2875*/63-64-65
			2820**67-71-72	2845**71-74-75	2867**74-78-78
56A	2832	2758F/59-63-65	2881*/63-65-67	2909*/64-65-67	2936*/64-65-67
			2877**68-71-73	2901**71-75-76	2924**74-79-79
54	2902	2800F/59-64-67	2943*/65-67-69	2972*/65-67-69	3000*/66-67-69
			2936**68-72-73	2962**71-75-76	2986**74-79-80
52	2981	2846F/60-65-68	3012*/66-70-72	3042*/67-70-72	3071*/67-70-72
			3002**68-72-74	3029**71-76-77	3055**75-79-80
50	3058	2891F/60-66-70	3073*/68-72-74	3109*/68-72-74	3140*/69-72-74
			3066**68-73-75	3093**71-76-78	3120**75-80-81
48	3137	2935F/61-67-71	3122F/68-74-76	3173*/70-74-76	3209*/70-74-76
				3159**72-77-78	3187**75-80-82
46	3214	2976F/61-68-72	3166F/69-75-77	3232F/71-76-78	3273*/72-76-78
				3222**72-77-79	3251**75-81-82
44	3290	3018F/61-69-73	3210F/69-76-78	3276F/72-78-80	3336*/73-78-80
					3316**75-81-83
42	3364	3059F/62-70-75	3254F/70-77-80	3323F/72-79-81	3395F/74-80-82
					3378**75-81-83
40	3441	3099F/62-71-76	3297F/70-78-81	3368F/73-80-82	3466F/75-81-83
					3450**75-82-84
38	3513	3136F/62-72-77	3337F/70-79-82	3410F/73-81-83	3518F/75-82-84
					3515**75-82-84
36	3581	3175F/63-73-78	3380F/71-79-83	3488F/73-81-83	3560F/75-83-85
34	3647	3208F/63-74-79	3423F/71-80-84	3526F/73-82-84	3598F/76-84-86
32	3670	3226F/63-74-79	3460F/71-80-84	3545F/73-82-85	3618F/76-84-87
30	3671	3235F/64-75-80	3480F/71-80-84	3556F/74-82-85	3629F/76-85-87
28	3672	3244F/64-75-80	3493F/71-80-84	3566F/74-83-85	3640F/77-85-87
26	3673	3253F/64-75-80	3503F/71-81-84	3576F/74-83-86	3650F/77-85-87
24	3674	3263F/64-76-80	3514F/72-81-84	3587F/75-83-86	3661F/77-85-88
22	3675	3272F/65-76-81	3524F/72-81-84	3597F/75-84-86	3672F/78-86-88
20	3675	3282F/65-76-81	3535F/72-82-85	3608F/75-84-86	3683F/78-86-88
					3679**78-86-88
18	3676	3291F/65-76-81	3545F/73-82-85	3619F/76-84-87	3695F/78-86-88
					3685**79-87-89
16	3677	3301F/66-77-81	3556F/73-82-85	3630F/76-85-87	3706F/78-86-88
					3690**79-87-89
14	3678	3312F/66-77-81	3566F/74-83-85	3641F/76-85-87	3715*/79-86-88
					3696**80-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22R	18	380	0	67	1485	0	73	1551	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 22R EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

12	3679	3322F/66-77-82	3577F/74-83-86	3652F/77-85-88	3722*/79-86-88 3702**80-88-90
10	3680	3332F/67-78-82	3588F/74-83-86	3664F/77-86-88	3729*/79-86-88 3708**81-89-91
8	3681	3343F/67-78-82	3599F/75-84-86	3675F/78-86-88	3736*/79-86-88 3714**81-90-91
6	3681	3353F/67-78-82	3610F/75-84-87	3686F/78-86-88 3684**78-86-88	3744*/79-86-88 3720**82-90-92
4	3682	3363F/68-79-83	3621F/75-84-87	3698F/78-86-88 3690**78-87-89	3750*/79-86-88 3726**82-91-92
2	3682	3374F/68-79-83	3633F/76-85-87	3709*/78-86-88 3695**79-87-89	3757*/79-86-88 3732**83-91-93
0	3683	3385F/68-79-83	3644F/76-85-87	3716*/78-86-88 3701**80-88-90	3764*/79-86-88 3738**83-92-93
-2	3683	3395F/69-79-83	3655F/77-85-88	3723*/78-86-88 3706**80-89-90	3769*/79-86-88 3743**84-92-94
-4	3683	3406F/69-80-84	3666F/77-86-88	3729*/79-86-88 3712**81-89-91	3773*/79-86-88 3749**84-93-94
-6	3683	3422F/69-80-84	3678F/77-86-88	3736*/79-86-88 3718**81-90-91	3778*/80-86-88 3754**85-94-95
-8	3683	3441F/69-80-84	3690F/78-86-88 3686**78-86-89	3743*/79-86-88 3723**82-90-92	3782*/80-86-88 3760**86-94-95
-10	3683	3461F/70-80-84	3701F/78-86-88 3692**78-87-89	3748*/79-86-88 3729**82-91-92	3786*/80-86-88 3765**86-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22R	18	380	0	67	1485	0	73	1551	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 30

EKCH

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2190F/43-43-49	2341F/49-49-53	2394F/51-51-55	2447F/53-53-56
58A	2765	2224F/44-44-50	2377F/50-50-54	2431F/52-52-56	2485F/54-54-58
56A	2832	2263F/45-45-51	2419F/51-51-56	2473F/53-53-57	2528F/55-55-59
54	2902	2304F/46-46-53	2463F/52-52-57	2517F/54-54-59	2574F/56-56-60
52	2981	2349F/47-47-54	2511F/53-53-59	2566F/55-55-60	2623F/57-57-62
50	3058	2394F/48-49-56	2558F/55-55-60	2614F/57-57-62	2671F/59-59-64
48	3137	2436F/49-50-57	2604F/56-56-62	2661F/58-58-63	2720F/60-60-65
46	3214	2476F/50-51-58	2647F/57-57-63	2706F/59-59-65	2765F/61-61-66
44	3290	2515F/51-52-60	2690F/58-58-65	2750F/60-60-66	2810F/62-62-68
42	3364	2555F/52-53-61	2734F/59-59-66	2794F/61-62-68	2856F/64-64-69
40	3441	2593F/53-54-62	2775F/60-61-67	2837F/62-63-69	2899F/65-65-71
38	3513	2628F/53-55-63	2814F/61-62-68	2876F/63-64-70	2939F/66-66-72
36	3581	2662F/54-56-64	2850F/62-62-70	2916F/64-65-71	2981F/67-67-73
34	3647	2690F/54-57-65	2881F/62-63-70	2947F/64-65-72	3015F/67-68-74
32	3670	2705F/54-57-66	2897F/62-64-71	2964F/65-66-73	3032F/67-68-74
30	3671	2713F/55-57-66	2906F/62-64-71	2973F/65-66-73	3041F/68-68-75
28	3672	2720F/55-57-66	2914F/63-64-71	2982F/65-66-73	3050F/68-69-75
26	3673	2728F/55-58-66	2923F/63-64-72	2991F/66-67-73	3059F/68-69-75
24	3674	2736F/55-58-67	2932F/63-65-72	3000F/66-67-74	3069F/69-69-75
22	3675	2744F/56-58-67	2940F/64-65-72	3009F/66-67-74	3078F/69-70-76
20	3675	2752F/56-59-67	2949F/64-65-72	3018F/67-68-74	3088F/69-70-76
18	3676	2760F/56-59-67	2958F/64-66-73	3027F/67-68-74	3097F/70-70-76
16	3677	2768F/57-59-68	2967F/65-66-73	3037F/67-68-75	3107F/70-71-76
14	3678	2776F/57-59-68	2976F/65-66-73	3046F/68-69-75	3116F/71-71-77
12	3679	2785F/57-60-68	2986F/65-67-73	3055F/68-69-75	3126F/71-71-77
10	3680	2793F/58-60-68	2995F/66-67-74	3065F/68-69-75	3136F/71-72-77
8	3681	2802F/58-60-68	3005F/66-67-74	3075F/69-70-76	3146F/72-72-77
6	3681	2810F/58-61-69	3014F/66-68-74	3084F/69-70-76	3156F/72-72-78
4	3682	2819F/59-61-69	3024F/67-68-74	3094F/70-70-76	3166F/72-73-78
2	3682	2828F/59-61-69	3033F/67-68-75	3104F/70-70-76	3177F/73-73-78
0	3683	2836F/59-61-69	3042F/67-68-75	3114F/70-71-77	3187F/73-73-78
-2	3683	2845F/60-62-70	3052F/68-69-75	3124F/71-71-77	3197F/73-73-79
-4	3683	2853F/60-62-70	3062F/68-69-75	3134F/71-71-77	3207F/74-74-79
-6	3683	2862F/60-62-70	3071F/69-69-76	3144F/71-72-77	3217F/74-74-79
-8	3683	2871F/61-63-70	3081F/69-70-76	3154F/72-72-78	3228F/74-74-79
-10	3683	2880F/61-63-71	3091F/69-70-76	3164F/72-72-78	3238F/75-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2365 M LONG WITH 0 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30	41	668	0	43	705	0	374	6222	0
	517	16471	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 681 FT

RUNWAY 01L ENGM

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2643	2571*/57-57-60	2660*/59-60-62	2687*/60-60-62	2712*/60-60-62
			2670**63-64-66	2702**66-68-69	2731**70-73-73
58A	2700	2619*/58-59-61	2711*/61-62-64	2739*/61-62-64	2765*/62-62-64
			2720**64-65-66	2752**67-69-70	2782**71-73-74
56A	2766	2668*/58-60-63	2768*/62-64-66	2796*/62-64-66	2824*/63-64-66
			2777**65-65-67	2810**68-70-71	2840**72-74-75
54A	2831	2716*/58-62-64	2831*/65-65-67	2854*/64-65-67	2883*/64-65-67
			2835**66-66-68	2869**69-71-72	2900**73-75-76
52	2900	2766*/59-63-66	2896*/67-67-69	2914*/65-67-69	2944*/66-67-69
				2931**70-71-73	2961**73-76-77
50	2974	2814F/59-64-67	2955*/67-69-71	2979*/67-70-72	3009*/67-70-72
				2993**70-72-74	3025**74-76-77
48	3053	2859F/60-65-69	3013*/68-70-73	3053*/70-72-74	3078*/69-72-74
				3058**71-72-74	3091**74-77-78
46	3131	2901F/60-66-70	3069*/68-72-74	3118*/71-73-76	3144*/70-74-76
					3156**74-77-79
44	3206	2942F/60-67-71	3122*/68-73-76	3172*/71-75-77	3207*/72-76-78
					3217**74-77-79
42	3276	2981F/61-68-72	3170F/68-74-77	3223*/71-76-79	3274*/74-78-80
40	3350	3022F/61-69-74	3213F/69-76-79	3276*/72-77-80	3330*/75-79-81
38	3420	3058F/61-70-75	3252F/69-76-80	3320F/72-78-81	3381*/75-80-83
36	3496	3097F/62-71-76	3293F/70-77-81	3363F/72-79-82	3446*/75-81-83
34	3557	3130F/62-72-77	3330F/70-78-82	3402F/73-80-83	3505*/75-81-84
32	3618	3162F/62-73-78	3366F/70-79-83	3462F/72-80-84	3545F/75-82-85
30	3631	3175F/63-73-78	3381F/71-79-83	3489F/72-80-84	3561F/75-83-85
28	3631	3184F/63-73-78	3391F/71-80-83	3499F/73-81-84	3571*/76-83-86
26	3632	3193F/63-74-79	3401F/71-80-83	3509F/73-81-84	3578*/76-83-86
24	3632	3202F/64-74-79	3412F/72-80-84	3519F/73-81-84	3585*/76-83-86
22	3633	3211F/64-74-79	3431F/72-80-84	3529F/74-82-85	3593*/77-84-86
20	3633	3220F/64-74-79	3450F/72-80-84	3540F/74-82-85	3600*/77-84-86
18	3634	3229F/65-75-79	3469F/72-80-84	3550*/75-82-85	3608*/78-84-86
16	3634	3238F/65-75-80	3488F/72-80-84	3557*/75-83-85	3615*/78-84-87
14	3635	3248F/65-75-80	3498F/72-81-84	3565*/75-83-85	3622*/79-85-87
12	3635	3257F/66-76-80	3509F/73-81-84	3572*/76-83-86	3630*/79-85-87
10	3636	3267F/66-76-80	3520F/73-81-84	3580*/76-83-86	3636*/79-85-87
					3637**80-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1090 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01L	19	434	0	71	1194	0	84	2060	0
	279	8153	0	543	16247	0	546	43540	0
	564	43543	0	595	43679	0	611	43830	0
	677	43906	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 01L BASED ON A 15 DEGREE

BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D5.0 GRM VOR, TO A MAG COURSE OF 181 DEGREES

ELEVATION 681 FT

RUNWAY 01L

ENGM

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
8	3636	3276F/66-76-81	3529*/74-82-85	3587*/77-83-86	3636*/79-85-87 3643**80-86-88
6	3637	3287F/67-77-81	3537*/74-82-85	3595*/77-84-86	3638*/78-85-87 3649**81-86-88
4	3637	3297F/67-77-81	3544*/74-82-85	3602*/78-84-86	3642*/79-85-87 3654**81-87-89
2	3637	3307F/67-77-81	3552*/75-82-85	3610*/78-84-86	3647*/79-85-87 3660**82-87-89
0	3637	3317F/68-77-82	3559*/75-83-85	3617*/79-84-87	3652*/79-85-87 3665**82-88-90
-2	3637	3328F/68-78-82	3567*/76-83-85	3624*/79-85-87	3656*/79-85-87 3671**83-88-90
-4	3638	3338F/68-78-82	3574*/76-83-86	3632*/80-85-87	3661*/79-85-87 3677**83-89-91
-6	3638	3349F/69-78-82	3581*/77-83-86	3638*/80-85-87 3639**80-85-87	3665*/79-85-87 3682**84-90-91
-8	3638	3360F/69-79-83	3589*/77-84-86	3638*/79-85-87 3644**81-86-88	3669*/79-85-87 3688**84-90-92
-10	3638	3371F/69-79-83	3596*/78-84-86	3638*/79-85-87 3650**81-86-88	3674*/79-85-87 3694**85-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1090 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01L	19	434	0	71	1194	0	84	2060	0
	279	8153	0	543	16247	0	546	43540	0
	564	43543	0	595	43679	0	611	43830	0
	677	43906	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 01L BASED ON A 15 DEGREE

BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D5.0 GRM VOR, TO A MAG COURSE OF 181 DEGREES

ELEVATION 681 FT

RUNWAY 01R ENGM

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2643	2355F/46-50-54	2526*/54-56-59	2573*/57-57-60	2612*/59-59-61
58A	2700	2391F/47-51-55	2567F/55-57-60	2617*/58-59-61	2660*/60-60-62
56A	2766	2431F/48-52-56	2610F/56-58-61	2667*/59-60-63	2714*/62-62-64
54A	2831	2472F/49-53-57	2652F/57-59-63	2714F/60-61-64	2764*/62-63-66
52	2900	2514F/50-54-59	2696F/58-60-64	2756F/60-63-66	2813*/63-65-67
50	2974	2559F/51-55-60	2739F/59-62-65	2799F/61-64-67	2861F/63-66-69
48	3053	2605F/52-56-62	2783F/59-63-67	2844F/62-65-68	2907F/64-67-70
46	3131	2646F/52-58-63	2824F/60-64-68	2886F/62-66-70	2950F/65-68-71
44	3206	2684F/53-58-64	2864F/60-65-69	2927F/63-67-71	2991F/65-69-73
42	3276	2721F/53-59-65	2903F/61-66-70	2966F/63-68-72	3031F/66-70-74
40	3350	2758F/53-60-67	2943F/61-67-72	3007F/64-69-73	3072F/66-71-75
38	3420	2791F/54-61-68	2978F/61-68-73	3043F/64-70-74	3109F/67-72-76
36	3496	2827F/54-62-69	3016F/62-68-74	3082F/64-71-75	3148F/67-73-77
34	3557	2857F/54-63-70	3048F/62-69-75	3115F/65-71-76	3183F/68-74-78
32	3618	2886F/54-64-71	3080F/62-70-76	3147F/65-72-77	3216F/68-74-79
30	3631	2898F/55-64-71	3093F/63-70-76	3160F/66-73-78	3230F/68-75-79
28	3631	2906F/55-64-71	3101F/63-71-76	3170F/66-73-78	3239F/69-75-80
26	3632	2914F/55-64-71	3110F/63-71-76	3179F/66-73-78	3249F/69-75-80
24	3632	2923F/56-65-72	3120F/64-71-77	3188F/66-73-78	3258F/69-76-80
22	3633	2931F/56-65-72	3129F/64-72-77	3198F/67-74-79	3268F/70-76-80
20	3634	2939F/56-65-72	3138F/64-72-77	3208F/67-74-79	3278F/70-76-81
18	3634	2948F/57-66-72	3147F/65-72-77	3217F/67-74-79	3288F/70-77-81
16	3634	2956F/57-66-72	3157F/65-72-78	3227F/68-75-79	3299F/71-77-81
14	3635	2965F/57-66-73	3166F/65-73-78	3236F/68-75-80	3309F/71-77-81
12	3635	2974F/58-66-73	3176F/66-73-78	3246F/69-75-80	3320F/71-78-82
10	3636	2983F/58-67-73	3186F/66-73-78	3257F/69-76-80	3331F/72-78-82
8	3636	2991F/58-67-73	3196F/66-74-79	3267F/69-76-80	3342F/72-78-82
6	3637	3000F/58-67-74	3206F/67-74-79	3277F/70-76-81	3353F/72-78-82
4	3637	3009F/59-68-74	3216F/67-74-79	3288F/70-77-81	3364F/73-79-83
2	3637	3018F/59-68-74	3226F/68-75-79	3298F/70-77-81	3376F/73-79-83
0	3637	3027F/59-68-74	3236F/68-75-80	3309F/71-77-81	3387F/73-79-83
-2	3637	3037F/60-69-75	3246F/68-75-80	3320F/71-78-82	3399F/74-80-83
-4	3638	3046F/60-69-75	3256F/69-76-80	3331F/71-78-82	3410F/74-80-84
-6	3638	3055F/60-69-75	3266F/69-76-80	3343F/72-78-82	3431F/74-80-84
-8	3638	3064F/61-69-75	3277F/69-76-81	3354F/72-79-82	3453F/74-80-84
-10	3638	3074F/61-70-76	3288F/70-77-81	3365F/72-79-83	3476F/75-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1160 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2950 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01R	45	687	0	46	718	0	63	1052	0
	65	1153	0	78	1286	0	89	1423	0
	258	8243	0	494	13830	0	556	54543	0
	735	55548	0	755	55550	0	767	55550	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 01R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D5.0 GRM VOR, TO A MAG COURSE OF 197 DEGREES

INTENTIONALLY LEFT BLANK

ELEVATION 681 FT

RUNWAY 19L ENGM

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF GARDERMOEN
OSLO
777-200LR GE90-110B1L DATED 23-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2643	2431F/45-52-56	2593*/53-58-60	2647*/56-60-62	2702*/59-60-62
				2645**56-60-62	2672**60-64-65
58A	2700	2468F/46-53-57	2634*/54-59-62	2688*/57-61-63	2748*/61-62-64
					2722**60-65-66
56A	2766	2509F/47-55-58	2681*/55-61-63	2735*/58-63-65	2792*/61-64-66
					2777**61-65-67
54A	2831	2551F/47-56-60	2726*/56-62-65	2779*/58-64-66	2833*/61-65-67
52	2900	2594F/48-57-61	2770*/56-63-66	2825*/59-65-67	2880*/62-67-69
50	2974	2640F/49-58-63	2817F/57-64-67	2873*/59-66-69	2929*/62-68-70
48	3053	2683F/50-59-64	2862F/57-65-69	2923*/60-67-70	2980*/63-69-72
46	3131	2723F/50-60-65	2904F/58-66-70	2967F/60-69-72	3029*/63-71-73
44	3206	2761F/51-61-66	2944F/58-67-71	3008F/61-70-73	3073F/63-72-75
42	3276	2798F/51-62-68	2984F/59-68-72	3048F/61-71-74	3114F/64-73-76
40	3350	2837F/51-63-69	3025F/59-69-74	3090F/62-72-75	3156F/64-74-77
38	3420	2871F/52-64-70	3061F/59-70-75	3127F/62-72-76	3194F/65-75-78
36	3496	2907F/52-65-71	3099F/60-71-76	3166F/63-73-78	3234F/65-76-79
34	3557	2939F/52-66-72	3133F/60-72-77	3200F/63-74-79	3269F/66-76-80
32	3618	2968F/52-66-73	3165F/60-73-78	3233F/63-75-80	3304F/66-77-81
30	3631	2981F/53-67-73	3178F/61-73-78	3247F/64-75-80	3319F/66-78-82
28	3631	2989F/53-67-73	3187F/61-73-78	3257F/64-76-80	3329F/67-78-82
26	3632	2997F/53-67-74	3197F/61-74-79	3266F/64-76-80	3340F/67-78-82
24	3632	3006F/53-68-74	3206F/62-74-79	3276F/65-76-81	3350F/67-78-82
22	3633	3015F/54-68-74	3216F/62-74-79	3286F/65-77-81	3361F/68-79-83
20	3634	3023F/54-68-74	3225F/62-75-79	3296F/65-77-81	3371F/68-79-83
18	3634	3032F/54-68-74	3235F/63-75-80	3307F/65-77-81	3382F/68-79-83
16	3634	3041F/55-69-75	3245F/63-75-80	3317F/66-77-82	3393F/69-80-83
14	3635	3050F/55-69-75	3254F/63-76-80	3328F/66-78-82	3404F/69-80-84
12	3635	3059F/55-69-75	3264F/64-76-80	3339F/66-78-82	3419F/69-80-84
10	3636	3068F/56-70-75	3275F/64-76-81	3350F/67-78-82	3441F/69-80-84
8	3636	3077F/56-70-76	3285F/64-77-81	3361F/67-79-83	3462F/69-80-84
6	3637	3086F/56-70-76	3296F/65-77-81	3372F/67-79-83	3485F/69-80-84
4	3637	3096F/57-70-76	3307F/65-77-81	3383F/68-79-83	3497F/70-81-84
2	3637	3105F/57-71-76	3317F/65-77-82	3394F/68-80-83	3508F/70-81-84
0	3637	3114F/57-71-77	3328F/66-78-82	3405F/69-80-84	3518*/71-81-84
-2	3637	3124F/58-71-77	3339F/66-78-82	3422F/69-80-84	3528*/71-82-85
-4	3638	3133F/58-72-77	3350F/66-78-82	3444F/69-80-84	3538*/71-82-85
-6	3638	3143F/58-72-77	3362F/67-79-83	3466F/69-80-84	3548*/72-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 850 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2950 M LONG WITH 400 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19L	17	591	0	22	644	0	23	671	0
	549	15331	0	265	25735	0	321	26002	0
	459	33964	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 681 FT

RUNWAY 19L ENGM

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

GARDERMOEN

OSLO

777-200LR GE90-110B1L

DATED 23-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-8	3638	3153F/59-72-78	3373F/67-79-83	3487*/69-80-84	3558*/72-83-85

-10	3638	3163F/59-73-78	3384F/67-79-83	3497*/70-81-84	3568*/73-83-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 850 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2950 M LONG WITH 400 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19L	17	591	0	22	644	0	23	671	0
	549	15331	0	265	25735	0	321	26002	0
	459	33964	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 681 FT

RUNWAY 19R ENGM

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF GARDERMOEN
OSLO
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2643	2626*/57-59-61	2731*/59-60-62	2762*/59-60-62	2794*/59-60-62
			2711**66-69-70	2733**69-73-73	2754**72-76-76
58A	2700	2664*/57-60-63	2778*/60-62-64	2812*/61-62-64	2845*/61-62-64
			2758**66-70-71	2781**69-73-74	2803**73-77-77
56A	2766	2706F/58-61-64	2831*/61-64-66	2866*/62-64-66	2900*/63-64-66
			2814**66-70-71	2837**70-74-74	2859**73-77-78
54A	2831	2746F/58-63-65	2884*/63-65-67	2920*/63-65-67	2955*/64-65-67
			2870**67-71-72	2894**70-74-75	2917**73-78-78
52	2900	2787F/59-64-66	2940*/64-67-69	2976*/65-67-69	3013*/65-67-69
			2928**67-71-73	2954**70-75-76	2979**73-78-79
50	2974	2830F/59-65-68	2999*/66-70-72	3036*/66-70-72	3074*/67-70-72
			2991**67-72-73	3017**70-75-76	3043**74-79-79
48	3053	2875F/59-66-69	3058F/67-72-74	3098*/68-72-74	3137*/68-72-74
			3056**67-72-74	3083**70-76-77	3110**74-79-80
46	3131	2917F/60-67-70	3103F/67-73-75	3159*/69-74-76	3198*/70-74-76
				3148**70-76-78	3175**74-79-81
44	3206	2958F/60-68-72	3147F/68-74-77	3212F/70-76-78	3257*/71-76-78
				3209**70-76-78	3237**74-80-81
42	3276	2998F/61-69-73	3189F/68-75-78	3254F/71-77-79	3314*/72-78-80
					3297**74-80-82
40	3350	3038F/61-70-74	3231F/69-76-79	3299F/71-78-81	3370F/74-80-82
					3359**74-81-83
38	3420	3075F/61-71-75	3270F/69-77-80	3341F/72-79-82	3414F/74-81-83
36	3496	3113F/61-72-76	3312F/69-78-81	3384F/72-80-83	3492F/74-81-83
34	3557	3147F/62-72-77	3349F/70-79-82	3431F/72-81-83	3530F/74-82-84
32	3618	3179F/62-73-78	3385F/70-79-83	3494F/72-81-84	3566F/75-83-85
30	3631	3192F/62-74-79	3400F/70-80-83	3509F/72-81-84	3581F/75-83-86
28	3631	3201F/63-74-79	3410F/71-80-84	3519F/72-81-84	3592F/75-84-86
26	3632	3210F/63-74-79	3429F/71-80-84	3529F/73-82-85	3602F/76-84-86
24	3632	3219F/63-74-79	3448F/71-80-84	3540F/73-82-85	3613F/76-84-87
22	3633	3228F/63-75-79	3467F/71-80-84	3550F/74-82-85	3624F/76-85-87
20	3634	3237F/64-75-80	3487F/71-80-84	3560F/74-83-85	3634F/77-85-87
18	3634	3246F/64-75-80	3498F/71-81-84	3571F/74-83-86	3645F/77-85-87
					3639**77-85-88
16	3634	3256F/64-76-80	3508F/72-81-84	3582F/75-83-86	3656F/77-85-87
					3645**78-86-88
14	3635	3265F/65-76-80	3519F/72-81-84	3592F/75-84-86	3665*/77-85-87
					3650**78-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 740 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.16 PERCENT FOR TODA AND -0.16 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET
19R	18	369	0	19	459	0
	394	14645	0	410	25191	0
	463	32244	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 681 FT

RUNWAY 19R ENGM

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
12	3635	3275F/65-76-81	3529F/72-82-85	3603F/75-84-86	3672*/77-85-87 3656**79-87-89
10	3636	3285F/65-77-81	3540F/73-82-85	3614F/76-84-87	3679*/77-85-87 3661**79-88-89
8	3636	3295F/66-77-81	3551F/73-82-85	3626F/76-85-87	3686*/78-85-87 3667**80-88-90
6	3637	3306F/66-77-81	3562F/74-83-85	3637F/76-85-87	3693*/78-85-87 3673**80-89-90
4	3637	3316F/66-77-82	3573F/74-83-86	3648F/77-85-87	3700*/78-85-87 3642**77-85-88
2	3637	3326F/67-78-82	3584F/74-83-86	3659*/77-85-87	3707*/78-85-87 3648**77-86-88
0	3637	3337F/67-78-82	3595F/75-84-86	3665*/77-85-87	3714*/78-85-87 3653**78-87-89
-2	3637	3347F/67-78-82	3606F/75-84-86	3672*/77-85-87	3721*/78-85-87 3659**79-87-89
-4	3638	3358F/68-79-82	3617F/75-84-87	3679*/77-85-87	3728*/78-85-87 3664**79-88-90
-6	3638	3369F/68-79-83	3629F/76-85-87	3686*/77-85-87	3734*/78-85-87 3670**80-88-90
-8	3638	3379F/68-79-83	3640F/76-85-87	3693*/77-85-87	3741*/78-85-87 3639**76-85-87
-10	3638	3390F/69-80-83	3651*/77-85-87	3700*/77-85-87	3711**84-93-94 3644**77-86-88
				3681**81-90-91	3717**85-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 740 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.16 PERCENT FOR TODA AND -0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19R	18	369	0	19	459	0	328	13775	0
	394	14645	0	410	25191	0	423	25248	0
	463	32244	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 04L KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2519*/55-55-58	2630*/59-59-62	2665*/60-60-63	2699*/62-62-64
					2702**63-63-65
58A	2765	2566*/57-57-60	2679*/61-61-63	2716*/62-62-64	2750*/63-63-65
					2752**64-64-66
56A	2832	2620*/58-58-62	2735*/62-62-65	2773*/63-63-66	2809*/65-65-67
54	2903	2676*/60-60-63	2794*/64-64-67	2832*/65-65-68	2870*/66-66-69
52	2981	2737*/61-61-65	2858*/66-66-68	2898*/67-67-70	2937*/68-68-71
50	3058	2790*/61-63-67	2920*/67-67-70	2961*/69-69-71	3002*/70-70-72
48	3137	2840*/61-64-68	2983*/69-69-72	3026*/70-70-73	3068*/72-72-74
46	3214	2888*/61-65-70	3044*/70-71-74	3087*/72-72-75	3131*/73-73-76
44	3290	2934*/62-67-71	3096*/70-72-75	3148*/73-74-77	3192*/75-75-78
42	3364	2979*/62-68-72	3144*/70-73-77	3200*/73-75-78	3252*/76-77-79
40	3442	3022*/62-69-74	3191*/71-74-78	3248*/73-76-80	3306*/76-78-81
38	3513	3062*/62-70-75	3235*/71-75-79	3294*/74-77-81	3355*/77-79-82
36	3582	3103*/62-71-76	3280*/71-77-81	3342*/74-78-82	3404*/77-80-83
34	3647	3140*/63-72-77	3321*/71-77-82	3384*/74-79-83	3471*/76-80-84
32	3671	3158*/63-72-78	3341*/71-78-82	3405*/74-80-84	3497*/77-81-84
30	3671	3165*/63-73-78	3349*/72-78-82	3414*/75-80-84	3505*/77-81-84
28	3672	3173*/63-73-78	3357*/72-78-83	3428*/75-80-84	3513*/77-81-84
26	3673	3180*/64-73-78	3366*/73-79-83	3441*/75-80-84	3521*/78-81-84
24	3674	3188*/64-73-78	3374*/73-79-83	3455*/76-80-84	3529*/78-81-85
22	3675	3195*/65-73-79	3382*/73-79-83	3468*/76-80-84	3536*/79-82-85
20	3676	3203*/65-74-79	3390*/74-79-83	3482*/76-80-84	3544*/79-82-85
18	3676	3211*/65-74-79	3399*/74-80-83	3491*/76-80-84	3552*/80-82-85
16	3677	3219*/66-74-79	3407*/75-80-84	3499*/77-81-84	3560*/80-82-85
14	3678	3226*/66-74-79	3419*/75-80-84	3507*/77-81-84	3568*/80-83-86
12	3679	3234*/66-75-80	3433*/75-80-84	3515*/78-81-84	3576*/81-83-86
10	3680	3242*/67-75-80	3446*/75-80-84	3523*/78-81-84	3583*/81-83-86
8	3681	3250*/67-75-80	3460*/76-80-84	3531*/79-82-85	3591*/82-83-86
6	3682	3258*/68-75-80	3473*/76-80-84	3539*/79-82-85	3599*/82-84-86
4	3682	3266*/68-76-80	3485*/76-80-84	3547*/80-82-85	3606*/83-84-86
2	3682	3274*/68-76-81	3493*/77-80-84	3555*/80-82-85	3613*/83-84-87
0	3683	3282*/69-76-81	3501*/77-81-84	3562*/81-82-85	3620*/84-84-87
-2	3683	3290*/69-76-81	3509*/78-81-84	3570*/81-83-86	3627*/84-84-87
-4	3683	3298*/70-77-81	3517*/78-81-84	3577*/82-83-86	3632*/85-85-87
-6	3683	3307*/70-77-81	3524*/79-81-84	3584*/82-83-86	3638*/85-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 720 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3460 M LONG WITH 0 M OF CLEARWAY AND 36 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	55	554	0	65	641	0	77	843	0
	79	845	0	120	2530	0	264	17387	0
	273	17793	0	290	18058	0	365	19888	0
	467	20294	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 04L KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-8 3683 3315*/70-77-82 3532*/79-82-85 3592*/83-83-86 3643*/85-85-87

-10 3684 3323*/71-77-82 3540*/80-82-85 3599*/83-84-86 3648*/85-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 720 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3460 M LONG WITH 0 M OF CLEARWAY AND 36 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	55	554	0	65	641	0	77	843	0
	79	845	0	120	2530	0	264	17387	0
	273	17793	0	290	18058	0	365	19888	0
	467	20294	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 04R KJFK

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A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2225*/40-44-50	2388*/49-50-55	2441*/52-52-56	2489*/54-54-58
58A	2765	2260*/41-45-51	2426*/50-52-56	2480*/53-54-57	2531*/55-55-59
56A	2832	2299*/42-46-52	2469*/51-53-57	2525*/54-55-59	2580*/57-57-60
54	2903	2340*/43-48-54	2513*/52-54-59	2571*/55-56-60	2628*/58-58-62
52	2981	2385*/44-49-55	2562*/53-55-60	2621*/56-57-62	2680*/59-59-64
50	3058	2429*/44-50-57	2609*/54-57-62	2670*/57-59-64	2730*/60-61-65
48	3137	2473*/45-51-58	2655*/54-58-63	2718*/58-60-65	2778*/60-62-67
46	3214	2514*/46-52-60	2699*/55-59-65	2761*/58-61-66	2822*/61-63-68
44	3290	2555*/47-53-61	2742*/56-60-66	2802*/59-62-68	2864*/61-64-69
42	3364	2596*/48-55-62	2781*/56-61-67	2842*/59-63-69	2905*/62-65-71
40	3442	2635*/48-56-63	2819*/57-62-68	2881*/59-64-70	2945*/62-66-72
38	3513	2670*/49-57-64	2854*/57-63-69	2917*/60-65-71	2981*/63-67-73
36	3582	2704*/49-57-66	2891*/57-64-71	2955*/60-66-72	3020*/63-68-74
34	3647	2733*/50-58-66	2922*/58-65-72	2987*/61-67-73	3053*/63-69-75
32	3671	2747*/50-58-67	2939*/58-65-72	3004*/61-67-74	3071*/64-69-75
30	3671	2755*/50-59-67	2947*/58-65-72	3013*/61-68-74	3079*/64-70-76
28	3672	2763*/50-59-67	2955*/59-66-72	3021*/61-68-74	3088*/64-70-76
26	3673	2771*/51-59-68	2963*/59-66-73	3030*/62-68-74	3097*/65-70-76
24	3674	2779*/51-60-68	2972*/59-66-73	3038*/62-68-75	3106*/65-71-76
22	3675	2787*/51-60-68	2980*/60-66-73	3047*/62-69-75	3115*/65-71-77
20	3676	2795*/52-60-68	2989*/60-67-73	3056*/63-69-75	3124*/66-71-77
18	3676	2803*/52-60-68	2997*/60-67-74	3065*/63-69-75	3133*/66-71-77
16	3677	2811*/52-61-69	3006*/61-67-74	3073*/64-69-76	3142*/66-72-77
14	3678	2820*/53-61-69	3015*/61-68-74	3082*/64-70-76	3151*/67-72-78
12	3679	2828*/53-61-69	3024*/61-68-74	3092*/64-70-76	3161*/67-72-78
10	3680	2836*/53-61-69	3033*/62-68-75	3101*/65-70-76	3170*/67-73-78
8	3681	2844*/53-62-70	3042*/62-68-75	3110*/65-71-76	3180*/68-73-78
6	3682	2852*/54-62-70	3051*/62-69-75	3119*/65-71-77	3189*/68-73-79
4	3682	2860*/54-62-70	3060*/63-69-75	3128*/66-71-77	3199*/69-74-79
2	3682	2869*/54-63-70	3069*/63-69-75	3138*/66-72-77	3208*/69-74-79
0	3683	2877*/55-63-70	3078*/63-70-76	3147*/66-72-77	3218*/69-74-79
-2	3683	2885*/55-63-71	3087*/64-70-76	3156*/67-72-78	3228*/70-74-79
-4	3683	2893*/55-63-71	3096*/64-70-76	3166*/67-72-78	3237*/70-75-80
-6	3683	2902*/56-64-71	3105*/65-71-76	3175*/68-73-78	3247*/71-75-80
-8	3683	2910*/56-64-71	3114*/65-71-77	3185*/68-73-78	3256*/71-75-80
-10	3684	2919*/57-64-72	3124*/65-71-77	3195*/68-73-79	3266*/71-76-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 510 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2560 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04R	1	2	0	2	48	0	22	160	0
	33	269	0	39	473	0	52	556	0
	59	1062	0	77	1433	0	87	1607	0
	346	19508	0	355	19550	0	365	19802	0

ENG-OUT PROCEDURE:

NONE

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*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF JOHN F. KENNEDY
NEWYORK
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2707	2401*/51-51-55	2521*/55-55-59	2559*/57-57-60	2598*/58-58-61
58A	2765	2443*/52-52-56	2568*/57-57-60	2606*/58-58-61	2646*/59-59-62
56A	2832	2490*/53-53-58	2621*/58-58-62	2662*/60-60-63	2702*/61-61-64
54	2903	2537*/53-55-59	2675*/60-60-63	2718*/61-61-64	2758*/63-63-66
52	2981	2589*/54-56-61	2735*/61-61-65	2779*/63-63-66	2821*/64-64-67
50	3058	2636*/55-58-63	2792*/63-63-67	2838*/65-65-68	2883*/66-66-69
48	3137	2681*/55-59-64	2844*/63-64-68	2897*/66-66-70	2943*/68-68-71
46	3214	2724*/56-60-65	2891*/63-66-70	2947*/66-67-71	3001*/69-69-73
44	3290	2765*/56-61-67	2936*/64-67-71	2993*/67-69-73	3051*/69-71-74
42	3364	2806*/56-62-68	2980*/64-68-73	3039*/67-70-74	3098*/70-72-76
40	3442	2846*/56-63-69	3022*/65-69-74	3083*/67-71-75	3143*/70-73-77
38	3513	2882*/57-64-70	3061*/65-70-75	3123*/68-72-76	3184*/70-74-78
36	3582	2920*/57-65-71	3102*/65-71-76	3165*/68-73-78	3227*/71-75-79
34	3647	2953*/57-66-72	3138*/65-72-77	3201*/68-74-79	3266*/71-76-80
32	3671	2970*/57-66-73	3155*/66-72-78	3220*/69-74-79	3285*/71-76-81
30	3671	2977*/58-66-73	3164*/66-72-78	3228*/69-75-79	3293*/72-77-81
28	3672	2985*/58-67-73	3172*/66-73-78	3236*/69-75-80	3302*/72-77-81
26	3673	2992*/58-67-73	3180*/67-73-78	3245*/70-75-80	3311*/72-77-81
24	3674	3000*/59-67-74	3188*/67-73-78	3253*/70-75-80	3320*/73-77-82
22	3675	3008*/59-67-74	3197*/67-74-79	3262*/70-76-80	3329*/73-78-82
20	3676	3016*/59-68-74	3205*/68-74-79	3270*/71-76-81	3338*/74-78-82
18	3676	3024*/60-68-74	3214*/68-74-79	3279*/71-76-81	3347*/74-78-82
16	3677	3032*/60-68-74	3222*/69-74-79	3288*/72-76-81	3357*/74-78-83
14	3678	3040*/60-68-75	3231*/69-75-80	3297*/72-77-81	3366*/75-79-83
12	3679	3048*/61-69-75	3240*/69-75-80	3306*/72-77-81	3375*/75-79-83
10	3680	3056*/61-69-75	3248*/70-75-80	3316*/73-77-82	3385*/76-79-83
8	3681	3064*/61-69-75	3257*/70-75-80	3325*/73-77-82	3394*/76-79-83
6	3682	3072*/62-69-76	3266*/70-76-80	3334*/73-78-82	3404*/76-80-84
4	3682	3080*/62-70-76	3275*/71-76-81	3343*/74-78-82	3414*/77-80-84
2	3682	3088*/62-70-76	3284*/71-76-81	3353*/74-78-82	3429*/77-80-84
0	3683	3096*/63-70-76	3293*/72-76-81	3362*/75-78-83	3443*/77-80-84
-2	3683	3104*/63-70-76	3302*/72-77-81	3371*/75-79-83	3457*/78-80-84
-4	3683	3113*/64-71-77	3311*/72-77-81	3380*/75-79-83	3470*/78-80-84
-6	3683	3121*/64-71-77	3320*/73-77-82	3389*/76-79-83	3483*/78-80-84
-8	3683	3129*/64-71-77	3329*/73-78-82	3398*/76-80-83	3491*/79-80-84
-10	3684	3138*/65-72-77	3338*/74-78-82	3407*/77-80-84	3499*/79-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3048 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
13L	1	2	0	2	6	0	15	334	0
	46	340	0	62	540	0	70	653	0
	79	767	0	95	2237	0			

ENG-OUT PROCEDURE:
NONE

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NEWYORK
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2707	2739*/59-62-64	2812*/61-62-64	2835*/61-62-64	2858*/62-62-64
		2772**69-72-73	2825**74-79-79	2825**74-79-79	2825**75-79-79
58A	2765	2791*/60-64-65	2866*/62-64-65	2890*/62-64-65	2914*/63-64-65
		2823**70-73-74	2882**75-81-81	2882**76-81-81	2882**76-81-81
56A	2832	2851*/61-65-67	2928*/63-65-67	2953*/64-65-67	2977*/64-65-67
		2882**70-73-74	2949**77-83-83	2949**77-83-83	2949**78-83-83
54	2903	2913*/63-67-69	2993*/65-67-69	3019*/65-67-69	3044*/66-67-69
		2946**71-73-74	3023**79-85-85	3023**79-85-85	3023**79-85-85
52	2981	2982*/64-70-72	3065*/66-70-72	3092*/67-70-72	3118*/67-70-72
		3012**71-74-75	3099**80-86-86	3107**81-87-87	3107**81-87-87
50	3058	3058*/67-72-74	3136*/68-72-74	3163*/68-72-74	3191*/69-72-74
		3075**71-74-76	3166**80-86-87	3188**83-90-90	3188**83-90-90
48	3137	3137*/71-74-76	3206*/69-74-76	3235*/70-74-76	3263*/70-74-76
			3233**80-87-87	3263**84-91-91	3267**85-92-92
46	3214	3188B/69-75-78	3275*/70-76-78	3306*/71-76-78	3336*/72-76-78
			3300**80-87-88	3333**84-91-92	3352**88-94-94
44	3290	3237B/68-76-79	3344*/72-78-80	3377*/72-78-80	3408*/73-78-80
			3367**80-87-88	3403**84-92-92	3442**88-95-95
42	3364	3278B/67-77-80	3410*/73-80-82	3462*/74-80-82	3500*/74-80-82
			3431**79-87-88	3483**83-91-92	3519**87-96-96
40	3442	3299B/67-78-81	3497*/73-81-83	3530*/74-81-83	3562*/75-81-83
			3501**77-86-87	3540**81-91-91	3576**86-95-96
38	3513	3320B/66-78-81	3550*/73-82-84	3584*/74-82-84	3618*/75-82-84
			3553**76-86-88	3593**80-91-92	3632**85-95-96
36	3582	3342B/66-78-82	3609*/74-83-86	3645*/75-83-86	3679*/76-83-86
			3604**75-86-88	3646**79-90-92	3685**84-95-96
34	3647	3364B/66-79-83	3647B/74-85-87	3702*/76-85-87	3737*/77-85-87
			3654**74-86-88	3697**78-90-92	3737**83-95-96
32	3671	3389B/66-79-83	3671B/74-86-88	3724*/77-86-88	3761*/78-86-88
			3675**74-86-88	3718**78-91-92	3759**83-95-96
30	3671	3495B/63-80-84	3671B/75-86-88	3729*/77-86-88	3765*/78-86-88
			3680**74-87-89	3724**79-91-93	3765**83-96-97
28	3672	3513B/63-81-84	3672B/75-86-88	3733*/77-86-88	3769*/78-86-88
			3686**75-87-89	3729**79-92-93	3771**84-96-97
26	3673	3523B/64-81-84	3673B/76-86-88	3738*/77-86-88	3774*/78-86-88
			3692**76-88-90	3735**80-92-94	3776**84-97-98
24	3674	3532B/64-82-85	3691B/76-86-88	3742*/77-86-88	3778*/78-86-88
			3697**76-88-90	3741**80-93-94	3782**85-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET
13R	1	2	0	16	376	0
	66	1424	0	83	1530	0
	89	1917	0	97	2000	0

ENG-OUT PROCEDURE:
NONE

ELEVATION 13 FT

RUNWAY 13R KJFK

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JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

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A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3675	3539B/64-82-85	3710*/76-86-88	3747*/77-86-88	3782*/78-86-88
			3703**77-89-91	3746**81-93-95	3787**86-98-99
20	3676	3547B/65-82-85	3715*/76-86-88	3751*/77-86-88	3787*/78-86-88
			3709**77-89-91	3752**82-94-95	3787**86-98-99
18	3676	3554B/65-82-85	3719*/77-86-88	3755*/77-86-88	3787F/78-86-88
			3715**78-90-92	3758**82-95-96	3787**87-98-99
16	3677	3561B/66-82-85	3724*/77-86-88	3760*/78-86-88	3787F/78-86-88
			3721**78-91-92	3764**83-95-96	3787**88-98-99
14	3678	3568B/66-83-86	3728*/77-86-88	3764*/78-86-88	3787F/79-86-88
			3727**79-91-93	3770**83-96-97	3787**88-98-98
12	3679	3576B/67-83-86	3733*/77-86-88	3769*/78-86-88	3787F/79-86-88
			3733**79-92-93	3776**84-96-97	3787**88-98-98
10	3680	3583B/67-83-86	3737*/77-86-88	3773*/78-86-88	3787F/79-86-88
			3739**80-92-94	3782**85-97-98	3787**88-98-98
8	3681	3590B/68-83-86	3742*/77-86-88	3778*/78-86-88	3787F/79-86-88
			3745**81-93-94	3787**85-98-98	3787**88-98-98
6	3682	3597B/68-84-86	3746*/77-86-88	3782*/78-86-88	3787F/79-86-88
			3751**81-93-95	3787**86-97-98	3787**88-97-98
4	3682	3605B/69-84-86	3750*/77-86-88	3786*/78-86-88	3787F/79-86-88
			3757**82-94-95	3787**87-97-98	3787**88-97-98
2	3682	3612B/69-84-87	3755*/77-86-88	3787F/78-86-88	3787F/79-86-88
			3763**82-95-96	3787**87-97-98	3787**88-97-98
0	3683	3619B/70-84-87	3759*/77-86-88	3787F/78-86-88	3787F/79-86-88
			3769**83-95-96	3787**87-97-98	3787**88-97-98
-2	3683	3626B/70-84-87	3762*/78-86-88	3787F/78-86-88	3787F/79-86-88
			3775**84-96-97	3787**87-97-98	3787**88-97-98
-4	3683	3632B/71-85-87	3766*/78-86-88	3787F/79-86-88	3787F/79-86-88
			3781**84-97-97	3787**87-97-98	3787**88-97-98
-6	3683	3639B/71-85-87	3770*/78-86-88	3787F/79-86-88	3787F/80-86-88
			3787**85-97-98	3787**87-97-98	3787**88-97-98
-8	3683	3646B/72-85-87	3774*/78-86-88	3787F/79-86-88	3787F/80-86-88
			3787**86-97-98	3787**87-97-98	3787**88-97-98
-10	3684	3653B/73-85-88	3778*/78-86-88	3787F/79-86-88	3787F/80-86-88
			3787**87-97-98	3787**88-97-98	3787**88-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
13R	1	2	0	16	376	0	61	1326	0
	66	1424	0	83	1530	0	88	1533	0
	89	1917	0	97	2000	0	98	2001	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 22L KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT	CLIMB	WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)			
C	100KG	-10	0	10	20

60A	2707	2235*/40-45-50	2410*/49-51-55	2470*/52-53-57	2531*/54-56-59
58A	2765	2269*/41-46-51	2445*/50-52-56	2506*/52-54-58	2568*/55-57-60
56A	2832	2307*/42-47-53	2486*/50-53-58	2548*/53-56-60	2611*/56-58-61
54	2903	2346*/42-48-54	2528*/51-54-59	2591*/54-57-61	2655*/57-59-63
52	2981	2390*/43-49-55	2574*/52-56-61	2638*/55-58-62	2703*/58-60-64
50	3058	2433*/44-50-57	2620*/53-57-62	2685*/56-59-64	2750*/59-62-66
48	3137	2476*/45-51-58	2665*/54-58-64	2731*/57-60-65	2794*/60-63-67
46	3214	2516*/46-52-60	2708*/55-59-65	2772*/58-61-67	2835*/60-64-68
44	3290	2556*/47-53-61	2748*/56-60-66	2811*/58-62-68	2875*/61-65-70
42	3364	2596*/48-55-62	2787*/56-61-67	2850*/59-63-69	2915*/62-66-71
40	3442	2635*/48-56-63	2823*/57-62-69	2888*/59-64-70	2953*/62-67-72
38	3513	2670*/49-56-64	2857*/57-63-70	2922*/60-65-71	2988*/62-67-73
36	3582	2704*/49-57-66	2893*/57-64-71	2959*/60-66-72	3026*/63-68-74
34	3647	2732*/50-58-66	2924*/58-65-72	2990*/60-67-73	3058*/63-69-75
32	3671	2747*/50-58-67	2940*/58-65-72	3007*/61-67-74	3075*/63-70-76
30	3671	2755*/50-59-67	2948*/58-65-72	3016*/61-68-74	3085*/64-70-76
28	3672	2763*/50-59-67	2957*/59-66-73	3025*/61-68-74	3094*/64-70-76
26	3673	2770*/51-59-68	2966*/59-66-73	3034*/62-68-75	3103*/64-70-76
24	3674	2778*/51-60-68	2974*/59-66-73	3043*/62-69-75	3113*/65-71-77
22	3675	2786*/51-60-68	2983*/60-67-73	3052*/62-69-75	3122*/65-71-77
20	3676	2795*/52-60-68	2992*/60-67-73	3061*/63-69-75	3132*/65-71-77
18	3676	2803*/52-60-68	3001*/60-67-74	3071*/63-69-75	3141*/66-72-77
16	3677	2811*/52-61-69	3011*/61-67-74	3080*/63-70-76	3151*/66-72-78
14	3678	2819*/53-61-69	3020*/61-68-74	3090*/64-70-76	3161*/67-72-78
12	3679	2828*/53-61-69	3029*/61-68-74	3099*/64-70-76	3171*/67-73-78
10	3680	2836*/53-62-69	3039*/62-68-75	3109*/64-71-76	3181*/67-73-78
8	3681	2845*/53-62-70	3048*/62-69-75	3119*/65-71-77	3191*/68-73-79
6	3682	2853*/54-62-70	3058*/62-69-75	3129*/65-71-77	3202*/68-74-79
4	3682	2862*/54-62-70	3067*/63-69-75	3138*/65-72-77	3212*/68-74-79
2	3682	2871*/54-63-70	3077*/63-70-76	3148*/66-72-77	3222*/69-74-79
0	3683	2879*/55-63-70	3086*/63-70-76	3158*/66-72-78	3233*/69-75-80
-2	3683	2888*/55-63-71	3096*/64-70-76	3169*/66-73-78	3243*/69-75-80
-4	3683	2897*/55-64-71	3106*/64-71-76	3179*/67-73-78	3254*/70-75-80
-6	3683	2906*/56-64-71	3116*/64-71-77	3189*/67-73-79	3264*/70-76-80
-8	3683	2914*/56-64-71	3126*/65-71-77	3199*/68-74-79	3275*/70-76-81
-10	3684	2924*/56-64-72	3136*/65-72-77	3210*/68-74-79	3286*/71-76-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2560 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22L	1	1	0	2	32	0	9	171	0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 13 FT

RUNWAY 22R KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2662*/55-60-63	2820*/61-62-64	2858*/61-62-64	2894*/62-62-64
			2762**64-69-70	2786**67-73-73	2808**70-76-76
58A	2765	2698*/55-61-64	2865*/62-64-65	2904*/62-64-65	2942*/63-64-65
			2811**64-70-71	2835**67-73-74	2858**70-77-77
56A	2832	2739*/55-62-65	2917*/63-65-67	2957*/64-65-67	2995*/64-65-67
			2868**64-70-71	2892**67-74-75	2916**71-77-78
54	2903	2781*/56-63-66	2962F/65-67-69	3011*/65-67-69	3051*/66-67-69
			2927**64-71-72	2953**68-74-75	2977**71-78-78
52	2981	2828*/56-65-68	3010F/65-70-72	3071*/67-70-72	3113*/67-70-72
			2993**64-71-73	3020**68-75-76	3046**71-78-79
50	3058	2873*/57-66-69	3054*/65-72-74	3121F/68-72-74	3172*/69-72-74
				3084**68-75-77	3112**71-79-80
48	3137	2917*/57-67-70	3101*/65-73-75	3169F/68-74-76	3232*/70-74-76
				3150**68-76-77	3177**71-79-80
46	3214	2960*/58-68-72	3146*/65-74-77	3211*/68-76-78	3281F/72-76-78
					3242**72-79-81
44	3290	3001*/58-69-73	3191*/66-75-78	3256*/69-77-79	3329F/72-78-80
					3306**72-80-82
42	3364	3043*/58-70-74	3235*/66-76-79	3302*/69-78-81	3375*/72-80-82
					3368**72-80-82
40	3442	3084*/59-71-75	3277*/67-77-80	3347*/69-79-82	3426*/72-81-83
38	3513	3121*/59-72-76	3318*/67-78-81	3390*/70-80-83	3497*/72-81-83
36	3582	3160*/59-73-78	3362*/67-79-82	3453*/70-81-83	3540*/72-82-85
34	3647	3194*/59-74-79	3400*/68-80-83	3507*/70-81-84	3579*/72-83-86
32	3671	3211*/60-74-79	3426*/68-80-84	3527*/70-81-85	3599*/73-84-86
30	3671	3220*/60-74-79	3445*/68-80-84	3537*/70-82-85	3609*/73-84-86
28	3672	3229*/60-75-80	3464*/68-80-84	3547*/71-82-85	3620*/73-84-87
26	3673	3238*/61-75-80	3484*/68-80-84	3557*/71-82-85	3630*/74-85-87
24	3674	3248*/61-75-80	3496*/68-80-84	3568*/71-83-86	3641*/74-85-87
22	3675	3257*/61-75-80	3506*/69-81-84	3578*/72-83-86	3652*/74-85-88
20	3676	3266*/62-76-80	3516*/69-81-84	3589*/72-83-86	3663*/75-86-88
18	3676	3276*/62-76-81	3527*/69-81-85	3599*/72-84-86	3673*/75-86-88
16	3677	3285*/62-76-81	3537*/70-82-85	3610*/73-84-87	3686*/76-86-88
					3681**76-86-88
14	3678	3295*/62-77-81	3548*/70-82-85	3621*/73-84-87	3700F/76-86-88
					3686**76-87-89
12	3679	3305*/63-77-81	3558*/70-82-85	3632*/73-85-87	3712F/77-86-88
					3692**77-87-89
10	3680	3316*/63-77-82	3569*/71-83-86	3643*/74-85-87	3723F/78-86-88
					3698**77-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 890 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3420 M LONG WITH 262 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

22R 1 263 0 558 50970 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 22R KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
8	3681	3326*/63-77-82	3580*/71-83-86	3654*/74-85-88	3735F/78-86-88 3704**78-88-90
6	3682	3336*/64-78-82	3591*/72-83-86	3665*/74-86-88	3747F/79-86-88 3710**78-89-91
4	3682	3346*/64-78-82	3601*/72-84-86	3676*/75-86-88	3759F/79-86-88 3715**79-90-91
2	3682	3357*/64-78-83	3612*/72-84-87	3689*/75-86-88 3685**75-86-88	3770F/79-86-88 3721**79-90-92
0	3683	3367*/65-79-83	3623*/73-84-87	3703*/76-86-88 3691**76-87-89	3782F/79-86-88 3727**80-91-92
-2	3683	3378*/65-79-83	3634*/73-85-87	3716F/77-86-88 3696**76-87-89	3787F/79-86-88 3733**80-91-93
-4	3683	3388*/65-79-83	3645*/73-85-87	3727F/77-86-88 3702**77-88-90	3787F/79-86-88 3738**81-92-93
-6	3683	3399*/66-80-83	3657*/74-85-88	3739F/78-86-88 3707**77-89-90	3787F/80-86-88 3744**81-92-94
-8	3683	3410*/66-80-84	3668*/74-86-88	3751F/79-86-88 3713**78-89-91	3787F/80-86-88 3749**82-93-94
-10	3684	3428*/66-80-84	3680*/75-86-88	3763F/79-86-88 3719**78-90-91	3787F/80-86-88 3755**82-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 890 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3420 M LONG WITH 262 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22R	1	263	0	558	50970	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 31L KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2701*/62-62-64	2754*/61-62-64	2773*/61-62-64	2791*/62-62-64
		2742**66-69-70	2825**74-79-79	2825**74-79-79	2825**75-79-79
58A	2765	2759*/63-63-65	2812*/62-64-65	2831*/62-64-65	2850*/63-64-65
		2793**67-69-71	2882**77-81-81	2882**76-81-81	2882**76-81-81
56A	2832	2824*/65-65-67	2877*/63-65-67	2896*/64-65-67	2915*/64-65-67
		2853**68-70-72	2945**78-82-82	2949**77-83-83	2949**78-83-83
54	2903	2891*/67-67-69	2945*/65-67-69	2965*/65-67-69	2984*/66-67-69
		2915**70-72-73	3010**79-83-83	3023**79-85-85	3023**79-85-85
52	2981	2966*/69-69-71	3020*/66-70-72	3041*/67-70-72	3061*/67-70-72
		2985**71-73-74	3084**80-84-84	3107**83-87-87	3107**81-87-87
50	3058	3040*/71-71-73	3094*/68-72-74	3115*/68-72-74	3136*/69-72-74
		3053**72-73-75	3155**81-85-85	3183**85-89-89	3188**83-90-90
48	3137	3115B/71-73-76	3171*/69-74-76	3192*/70-74-76	3213*/70-74-76
		3116**71-74-76	3222**81-85-86	3250**85-89-89	3267**86-92-92
46	3214	3165B/70-75-77	3244*/70-76-78	3266*/71-76-78	3289*/72-76-78
			3287**81-85-86	3319**85-89-90	3349**88-93-94
44	3290	3211B/69-76-78	3317*/72-78-80	3341*/72-78-80	3364*/73-78-80
			3351**81-85-86	3387**85-90-90	3422**88-94-94
42	3364	3255B/68-77-80	3382*/73-80-82	3412*/74-80-82	3444*/74-80-82
			3407**79-85-86	3461**83-89-90	3505**87-94-94
40	3442	3299B/67-78-81	3460*/73-81-83	3495*/74-81-83	3519*/75-81-83
			3482**78-84-86	3523**82-89-90	3560**86-93-94
38	3513	3320B/66-78-81	3521*/73-82-84	3557*/74-82-84	3583*/75-82-84
			3534**76-84-86	3575**81-88-90	3615**85-93-94
36	3582	3342B/66-78-82	3582*/75-83-86	3616*/75-83-86	3648*/76-83-86
			3585**75-84-86	3627**80-88-90	3667**84-93-94
34	3647	3364B/66-79-83	3628B/75-85-87	3672*/76-85-87	3709*/77-85-87
				3676**79-88-90	3718**83-93-94
32	3671	3389B/66-79-83	3647B/75-85-87	3694*/77-86-88	3732*/78-86-88
				3697**79-89-90	3740**83-93-94
30	3671	3469B/64-80-84	3655B/75-85-88	3699*/77-86-88	3736*/78-86-88
				3703**79-89-91	3745**84-94-95
28	3672	3481B/64-80-84	3662B/76-86-88	3704*/77-86-88	3738*/78-86-88
				3709**80-90-91	3751**84-94-95
26	3673	3490B/65-80-84	3670B/76-86-88	3708*/77-86-88	3740*/78-86-88
				3715**80-90-92	3757**85-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 570 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
31L	51	961	0	55	962	0	56	972	0
	58	1145	0	80	1163	0	165	3922	0
	212	5358	0	269	5974	0	271	5982	0
	336	6450	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 31L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED JFK AT VOR D3.0 TO A MAG COURSE OF 180 DEGREES IF JFK VOR OTS, COMMENCE LEFT UPON
 CROSSING CRI VOR R-060

ELEVATION 13 FT

RUNWAY 31L KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3674	3498B/65-81-84	3675*/76-86-88	3713*/77-86-88	3742*/78-86-88
			3676**77-86-88	3721**81-91-92	3763**85-95-96
22	3675	3505B/65-81-84	3679*/76-86-88	3718*/77-86-88	3744*/78-86-88
			3682**77-87-89	3727**82-91-93	3769**86-96-97
20	3676	3513B/66-81-84	3684*/76-86-88	3721*/77-86-88	3747*/78-86-88
			3688**78-87-89	3733**82-92-93	3775**87-97-97
18	3676	3520B/66-81-84	3689*/77-86-88	3723*/77-86-88	3749*/78-86-88
			3694**78-88-90	3738**83-92-94	3781**87-97-98
16	3677	3528B/67-81-85	3694*/77-86-88	3725*/78-86-88	3751*/78-86-88
			3700**79-88-90	3744**83-93-94	3787**88-98-98
14	3678	3535B/67-82-85	3699*/77-86-88	3727*/78-86-88	3753*/79-86-88
			3706**79-89-91	3750**84-94-95	3787**88-98-98
12	3679	3543B/68-82-85	3703*/77-86-88	3730*/78-86-88	3756*/79-86-88
			3712**80-89-91	3756**84-94-95	3787**88-98-98
10	3680	3551B/68-82-85	3706*/77-86-88	3732*/78-86-88	3758*/79-86-88
			3719**81-90-92	3763**85-95-96	3787**88-98-98
8	3681	3559B/69-82-85	3708*/77-86-88	3734*/78-86-88	3760*/79-86-88
			3725**81-91-92	3769**86-95-96	3787**88-98-98
6	3682	3566B/69-83-85	3710*/77-86-88	3736*/78-86-88	3762*/79-86-88
			3731**82-91-93	3775**86-96-97	3787**88-97-98
4	3682	3574B/70-83-86	3712*/77-86-88	3738*/78-86-88	3764*/79-86-88
			3737**82-92-93	3781**87-97-98	3787**88-97-98
2	3682	3581B/70-83-86	3713*/77-86-88	3740*/78-86-88	3766*/79-86-88
			3743**83-92-94	3787**88-97-98	3787**88-97-98
0	3683	3589B/71-83-86	3715*/77-86-88	3741*/78-86-88	3767*/79-86-88
			3749**84-93-94	3787**87-97-98	3787**88-97-98
-2	3683	3596B/71-83-86	3717*/78-86-88	3743*/78-86-88	3769*/79-86-88
			3755**84-94-95	3787**87-97-98	3787**88-97-98
-4	3683	3603B/72-84-86	3718*/78-86-88	3744*/79-86-88	3770*/79-86-88
			3761**85-94-95	3787**87-97-98	3787**88-97-98
-6	3683	3611B/72-84-87	3720*/78-86-88	3746*/79-86-88	3772*/80-86-88
			3767**85-95-96	3787**87-97-98	3787**88-97-98
-8	3683	3618B/73-84-87	3721*/78-86-88	3747*/79-86-88	3773*/80-86-88
			3773**86-96-97	3787**87-97-98	3787**88-97-98
-10	3684	3626B/73-84-87	3723*/78-86-88	3749*/79-86-88	3775*/80-86-88
			3779**87-96-97	3787**88-97-98	3787**88-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 570 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
31L	51	961	0	55	962	0	56	972	0
	58	1145	0	80	1163	0	165	3922	0
	212	5358	0	269	5974	0	271	5982	0
	336	6450	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 31L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED JFK AT VOR D3.0 TO A MAG COURSE OF 180 DEGREES IF JFK VOR OTS, COMMENCE LEFT UPON
 CROSSING CRI VOR R-060

ELEVATION 13 FT

RUNWAY 31R KJFK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2707	2393*/47-51-55	2540*/56-56-59	2580*/57-57-60	2620*/59-59-61
58A	2765	2432*/48-52-56	2583*/57-57-60	2627*/59-59-62	2667*/60-60-63
56A	2832	2477*/49-53-58	2633*/58-59-62	2681*/60-60-63	2723*/62-62-64
54	2903	2524*/49-54-59	2684*/59-60-64	2734*/61-62-65	2779*/63-63-66
52	2981	2575*/50-56-61	2735*/59-61-65	2787*/62-63-67	2838*/64-65-68
50	3058	2625*/51-57-62	2785*/59-63-67	2838*/62-65-68	2891*/65-66-70
48	3137	2672*/52-58-64	2834*/60-64-68	2888*/63-66-70	2943*/65-68-71
46	3214	2715*/52-60-65	2880*/60-65-70	2936*/63-67-71	2992*/66-69-73
44	3290	2757*/52-61-66	2925*/60-66-71	2982*/63-68-72	3039*/66-70-74
42	3364	2799*/52-62-68	2969*/61-67-72	3027*/64-69-74	3086*/66-71-75
40	3442	2838*/53-63-69	3012*/61-69-73	3071*/64-71-75	3131*/67-72-77
38	3513	2872*/53-64-70	3051*/61-70-75	3112*/64-72-76	3172*/67-73-78
36	3582	2909*/53-64-71	3093*/62-71-76	3154*/65-73-77	3216*/67-75-79
34	3647	2940*/54-65-72	3129*/62-71-77	3191*/65-73-79	3254*/68-75-80
32	3671	2956*/54-66-72	3147*/62-72-77	3209*/65-74-79	3273*/68-76-81
30	3671	2964*/54-66-73	3155*/63-72-78	3218*/65-74-79	3281*/68-76-81
28	3672	2972*/54-66-73	3163*/63-72-78	3226*/66-74-79	3290*/69-76-81
26	3673	2981*/55-66-73	3171*/63-73-78	3234*/66-75-80	3299*/69-77-81
24	3674	2989*/55-67-73	3179*/64-73-78	3242*/67-75-80	3308*/69-77-81
22	3675	2998*/55-67-74	3187*/64-73-78	3251*/67-75-80	3316*/70-77-82
20	3676	3006*/56-67-74	3195*/64-73-79	3259*/67-75-80	3325*/70-77-82
18	3676	3015*/56-68-74	3203*/65-74-79	3267*/68-76-80	3334*/71-78-82
16	3677	3024*/56-68-74	3211*/65-74-79	3276*/68-76-81	3343*/71-78-82
14	3678	3032*/57-68-74	3220*/65-74-79	3285*/68-76-81	3352*/71-78-82
12	3679	3040*/57-68-75	3228*/66-75-80	3294*/69-77-81	3361*/72-78-83
10	3680	3048*/57-69-75	3237*/66-75-80	3302*/69-77-81	3370*/72-79-83
8	3681	3056*/58-69-75	3245*/67-75-80	3311*/70-77-82	3380*/73-79-83
6	3682	3064*/58-69-75	3254*/67-75-80	3320*/70-77-82	3389*/73-79-83
4	3682	3072*/58-69-76	3262*/67-76-80	3329*/70-78-82	3398*/73-80-83
2	3682	3080*/59-70-76	3271*/68-76-81	3338*/71-78-82	3407*/74-80-84
0	3683	3088*/59-70-76	3279*/68-76-81	3347*/71-78-82	3420*/74-80-84
-2	3683	3095*/59-70-76	3288*/69-76-81	3356*/72-78-83	3435*/74-80-84
-4	3683	3103*/60-70-76	3297*/69-77-81	3365*/72-79-83	3450*/75-80-84
-6	3683	3111*/60-71-77	3306*/69-77-81	3374*/72-79-83	3464*/75-80-84
-8	3683	3119*/61-71-77	3315*/70-77-82	3383*/73-79-83	3479*/75-80-84
-10	3684	3127*/61-71-77	3324*/70-77-82	3393*/73-79-83	3491*/76-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 550 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2900 M LONG WITH 148 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
31R	1	151	0	5	179	0	7	206	0
	8	209	0	12	269	0	14	299	0
	16	328	0	20	339	0	55	649	0
	289	6649	0	372	9492	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 31R BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED AT JFK VOR D3.0 TO A MAG COURSE OF 180 DEGREES IF JFK VOR OTS, COMMENCE LEFT AT D5.0 CRI
 VOR

INTENTIONALLY LEFT BLANK

ELEVATION 14 FT

RUNWAY 02 LEBL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2707	2238*/39-45-50	2398*/48-51-55	2452*/51-53-57	2506*/54-55-58
58A	2765	2272F/40-46-51	2436*/49-52-56	2491*/52-54-58	2546*/55-56-59
56A	2832	2310F/40-47-53	2479*/50-53-58	2535*/53-55-59	2592*/56-57-61
54	2903	2350F/41-48-54	2524*/50-54-59	2582*/53-56-61	2639*/56-58-62
52	2981	2394F/42-49-55	2573*/51-56-61	2632*/54-58-62	2691*/57-60-64
50	3058	2437F/43-50-57	2622*/52-57-62	2681*/55-59-64	2741*/58-61-65
48	3137	2479F/44-51-58	2669F/53-58-64	2731*/56-60-65	2789*/59-62-67
46	3214	2520F/45-53-60	2711F/54-59-65	2775*/57-62-67	2833*/59-64-68
44	3290	2560F/46-54-61	2752F/55-60-66	2815F/57-63-68	2877*/60-65-70
42	3364	2600F/46-55-62	2791F/55-61-67	2854F/58-64-69	2919F/60-66-71
40	3442	2639F/47-56-63	2828F/56-62-69	2892F/58-65-70	2957F/61-67-72
38	3513	2674F/48-57-65	2861F/56-63-70	2926F/59-65-71	2993F/61-68-73
36	3582	2709F/48-58-66	2897F/56-64-71	2963F/59-66-73	3030F/62-69-74
34	3647	2738F/49-58-67	2928F/57-65-72	2995F/59-67-73	3063F/62-69-75
32	3671	2752F/49-59-67	2944F/57-65-72	3012F/60-67-74	3089F/62-70-76
30	3671	2760F/49-59-67	2953F/57-66-72	3021F/60-68-74	3089F/63-70-76
28	3672	2768F/49-59-67	2962F/58-66-73	3029F/60-68-74	3098F/63-70-76
26	3673	2776F/50-59-68	2970F/58-66-73	3038F/61-68-75	3108F/63-71-76
24	3674	2784F/50-60-68	2979F/58-66-73	3047F/61-69-75	3117F/64-71-77
22	3675	2792F/50-60-68	2988F/58-67-73	3057F/61-69-75	3126F/64-71-77
20	3676	2800F/50-60-68	2997F/59-67-74	3066F/62-69-75	3136F/64-72-77
18	3676	2808F/51-61-69	3006F/59-67-74	3075F/62-70-76	3146F/65-72-77
16	3677	2816F/51-61-69	3015F/59-68-74	3085F/62-70-76	3156F/65-72-78
14	3678	2825F/51-61-69	3025F/60-68-74	3094F/63-70-76	3165F/65-72-78
12	3679	2833F/52-61-69	3034F/60-68-75	3104F/63-70-76	3176F/66-73-78
10	3680	2842F/52-62-70	3043F/60-68-75	3114F/63-71-77	3186F/66-73-78
8	3681	2850F/52-62-70	3053F/61-69-75	3123F/64-71-77	3195*/66-73-79
6	3681	2859F/53-62-70	3062F/61-69-75	3133F/64-71-77	3204*/67-74-79
4	3682	2867F/53-63-70	3072F/61-69-76	3143F/64-72-77	3213*/67-74-79
2	3682	2876F/53-63-70	3081F/62-70-76	3153F/65-72-78	3223*/68-74-79
0	3683	2884F/54-63-71	3091F/62-70-76	3163F/65-72-78	3232*/68-75-80
-2	3683	2893F/54-63-71	3101F/62-70-76	3172*/65-73-78	3241*/68-75-80
-4	3683	2902F/54-64-71	3111F/63-71-77	3181*/66-73-78	3250*/69-75-80
-6	3683	2911F/55-64-71	3120F/63-71-77	3190*/66-73-79	3260*/69-75-80
-8	3683	2920F/55-64-72	3130F/64-71-77	3199*/67-74-79	3269*/70-76-81
-10	3684	2929F/55-65-72	3139*/64-72-77	3208*/67-74-79	3278*/70-76-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 440 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2528 M LONG WITH 72 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
02	6	131	0	14	218	0	19	322	0
	37	420	0	69	1113	0	78	1201	0
	79	1251	0	301	7808	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RUNWAY 02 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT-
 TURN, COMMENCED AT D1.1 BCN DME (D1.0 BCA ILS/DME) TO A MAG COURSE 160 DEGREES

INTENTIONALLY LEFT BLANK

ELEVATION 14 FT

RUNWAY 07L LEBL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2707	2588*/55-58-60	2710*/61-62-64	2742*/61-62-64	2772*/62-62-64
			2717**63-63-65	2747**66-67-68	2776**69-71-72
58A	2765	2627*/56-59-62	2765*/63-64-65	2791*/62-64-65	2823*/63-64-65
			2766**63-64-66	2798**67-68-69	2826**70-72-73
56A	2832	2670*/56-60-63	2818*/64-65-67	2847*/64-65-67	2880*/64-65-67
				2854**67-68-70	2883**70-72-73
54	2903	2714*/56-61-64	2869*/64-66-69	2906*/65-67-69	2940*/66-67-69
				2913**67-69-71	2943**70-73-74
52	2981	2760*/57-62-66	2925*/65-68-70	2975*/67-70-72	3006*/67-70-72
					3009**71-73-75
50	3058	2806*/57-63-67	2977*/65-69-72	3030*/68-71-73	3070*/69-72-74
					3073**71-74-75
48	3137	2851F/58-65-69	3027*/65-70-73	3084*/68-72-75	3137*/71-74-76
46	3214	2893F/58-66-70	3073*/66-72-75	3133*/68-74-76	3191*/71-75-78
44	3290	2933F/58-67-71	3118*/66-73-76	3180*/69-75-78	3242*/72-77-79
42	3364	2974F/59-68-72	3162*/67-74-77	3226*/69-76-79	3290*/72-78-80
40	3442	3012F/59-69-74	3205*/67-75-78	3270*/70-77-80	3337*/72-79-82
38	3513	3048F/59-69-75	3244F/67-76-80	3312*/70-78-81	3381*/73-80-83
36	3582	3086F/60-70-76	3285F/68-77-81	3356*/70-79-82	3439*/73-80-83
34	3647	3119F/60-71-77	3321F/68-77-82	3394F/71-80-83	3500*/73-81-84
32	3671	3136F/60-72-77	3341F/68-78-82	3417F/71-80-84	3520*/73-81-84
30	3671	3145F/60-72-77	3351F/69-78-82	3436F/71-80-84	3529*/73-82-85
28	3672	3153F/61-72-78	3361F/69-79-83	3453*/71-80-84	3539*/74-82-85
26	3673	3162F/61-72-78	3371F/69-79-83	3471*/71-80-84	3549*/74-82-85
24	3674	3171F/61-73-78	3382F/70-79-83	3488*/72-80-84	3559*/74-82-85
22	3675	3181F/62-73-78	3392F/70-79-83	3498*/72-81-84	3568*/75-83-86
20	3676	3190F/62-73-79	3403F/70-80-84	3508*/72-81-84	3578*/75-83-86
18	3676	3199F/62-74-79	3414*/71-80-84	3518*/73-81-84	3588*/76-83-86
16	3677	3208F/63-74-79	3432*/71-80-84	3528*/73-81-85	3598*/76-84-86
14	3678	3218F/63-74-79	3450*/71-80-84	3538*/73-82-85	3608*/76-84-86
12	3679	3228F/63-74-79	3469*/71-80-84	3548*/74-82-85	3618*/77-84-87
10	3680	3237F/64-75-80	3487*/71-80-84	3558*/74-82-85	3628*/77-84-87
8	3681	3247F/64-75-80	3497*/72-81-84	3568*/75-83-86	3638*/78-85-87
6	3681	3257F/64-75-80	3507*/72-81-84	3578*/75-83-86	3647*/78-85-87
4	3682	3267F/65-76-80	3517*/72-81-84	3588*/75-83-86	3656*/78-85-88
2	3682	3276F/65-76-81	3527*/73-81-85	3598*/76-84-86	3665*/79-86-88
0	3683	3287F/65-76-81	3537*/73-82-85	3608*/76-84-86	3673*/79-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07L	15	261	0	16	327	0	18	376	0
	23	391	0	36	715	0	44	756	0
	116	2476	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 14 FT

RUNWAY 07L LEBL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
BARCELONA
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
-2	3683	3297F/66-77-81	3547*/74-82-85	3617*/77-84-87	3682*/80-86-88
-4	3683	3307F/66-77-81	3557*/74-82-85	3626*/77-84-87	3684*/79-86-88
					3688**80-87-89
-6	3683	3318F/66-77-82	3567*/74-83-86	3635*/77-85-87	3690*/80-86-88
					3694**81-87-89
-8	3683	3328F/67-78-82	3577*/75-83-86	3644*/78-85-87	3696*/80-86-88
					3700**81-88-90
-10	3684	3339*/67-78-82	3587*/75-83-86	3652*/78-85-88	3701*/80-86-88
					3705**82-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M			
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07L	15	261	0	16	327	0	18	376	0
	23	391	0	36	715	0	44	756	0
	116	2476	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 14 FT

RUNWAY 07R LEBL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2707	2300F/42-47-52	2465*/51-53-57	2520*/54-55-59	2576*/56-57-60
58A	2765	2335F/43-48-53	2503*/51-54-58	2560*/54-56-60	2617*/57-58-61
56A	2832	2374F/43-49-55	2547*/52-56-60	2605*/55-58-61	2663*/58-60-63
54	2903	2415F/44-50-56	2593*/53-57-61	2652*/56-59-63	2711*/59-61-64
52	2981	2460F/45-52-57	2643*/54-58-63	2703*/57-60-64	2762*/60-62-66
50	3058	2505F/46-53-59	2692*/55-60-64	2752*/58-62-66	2809*/61-64-67
48	3137	2548F/47-54-60	2738F/56-61-66	2798*/59-63-67	2857*/61-65-69
46	3214	2589F/48-55-62	2777F/56-62-67	2840F/59-64-68	2901*/62-66-70
44	3290	2630F/49-56-63	2816F/57-63-68	2880F/59-65-70	2944*/62-67-71
42	3364	2671F/49-57-64	2855F/57-64-69	2919F/60-66-71	2985F/63-68-73
40	3442	2707F/50-58-65	2893F/58-65-70	2958F/60-67-72	3024F/63-69-74
38	3513	2739F/50-59-66	2927F/58-65-71	2993F/61-68-73	3060F/63-70-75
36	3582	2774F/50-60-67	2964F/58-66-73	3030F/61-69-74	3098F/64-71-76
34	3647	2803F/51-61-68	2996F/59-67-73	3063F/61-69-75	3131F/64-72-77
32	3671	2818F/51-61-69	3012F/59-68-74	3080F/62-70-76	3149F/65-72-77
30	3671	2826F/51-61-69	3021F/59-68-74	3089F/62-70-76	3158F/65-72-78
28	3672	2834F/51-61-69	3030F/60-68-74	3098F/62-70-76	3168F/65-73-78
26	3673	2842F/52-62-69	3039F/60-68-75	3107F/63-71-76	3177F/66-73-78
24	3674	2850F/52-62-70	3048F/60-69-75	3117F/63-71-77	3187F/66-73-78
22	3675	2859F/52-62-70	3057F/61-69-75	3126F/63-71-77	3197F/66-74-79
20	3676	2867F/53-63-70	3066F/61-69-75	3135F/64-72-77	3207F/67-74-79
18	3676	2875F/53-63-70	3075F/61-70-76	3145F/64-72-77	3217F/67-74-79
16	3677	2883F/53-63-71	3085F/62-70-76	3155F/64-72-78	3227F/67-74-79
14	3678	2892F/54-63-71	3094F/62-70-76	3164F/65-72-78	3237F/68-75-80
12	3679	2901F/54-64-71	3104F/62-70-76	3174F/65-73-78	3247F/68-75-80
10	3680	2909F/54-64-71	3113F/63-71-77	3184F/65-73-78	3257F/68-75-80
8	3681	2918F/54-64-72	3123F/63-71-77	3194F/66-73-79	3268F/69-76-80
6	3681	2927F/55-65-72	3133F/63-71-77	3205F/66-74-79	3278*/69-76-81
4	3682	2936F/55-65-72	3142F/64-72-77	3215F/66-74-79	3288*/69-76-81
2	3682	2945F/55-65-72	3152F/64-72-78	3225F/67-74-79	3298*/70-77-81
0	3683	2953F/56-65-72	3162F/64-72-78	3235F/67-75-80	3308*/70-77-81
-2	3683	2962F/56-66-73	3172F/65-73-78	3246F/68-75-80	3318*/71-77-82
-4	3683	2971F/56-66-73	3182F/65-73-78	3255*/68-75-80	3328*/71-78-82
-6	3683	2981F/57-66-73	3192F/65-73-79	3265*/68-76-80	3338*/71-78-82
-8	3683	2990F/57-67-73	3203F/66-74-79	3274*/69-76-81	3349*/72-78-82
-10	3684	2999F/57-67-74	3213F/66-74-79	3284*/69-76-81	3359*/72-78-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2660 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07R	2	96	0	8	193	0	12	248	0
	25	321	0	28	537	0	38	646	0
	235	3689	0						

ENG-OUT PROCEDURE:

NONE

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ELEVATION 14 FT

RUNWAY 20 LEBL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2707	2240F/39-45-50	2416F/48-51-55	2476F/51-54-57	2538F/53-56-59
58A	2765	2274F/40-46-51	2451F/49-52-57	2512F/51-55-58	2575F/54-57-60
56A	2832	2312F/41-47-53	2492F/49-54-58	2554F/52-56-60	2617F/55-58-62
54	2903	2352F/41-48-54	2534F/50-55-59	2597F/53-57-61	2662F/56-59-63
52	2981	2395F/42-49-56	2580F/51-56-61	2645F/54-58-63	2710F/57-61-64
50	3058	2439F/43-50-57	2626F/52-57-62	2691F/55-59-64	2756F/58-62-66
48	3137	2481F/44-52-58	2671F/53-58-64	2737F/56-61-66	2800F/59-63-67
46	3214	2521F/45-53-60	2714F/54-59-65	2778F/57-62-67	2841F/59-64-69
44	3290	2561F/46-54-61	2754F/55-61-66	2817F/57-63-68	2882F/60-65-70
42	3364	2602F/47-55-62	2793F/55-61-68	2856F/58-64-69	2921F/60-66-71
40	3442	2640F/47-56-64	2829F/56-62-69	2894F/58-65-70	2960F/61-67-72
38	3513	2676F/48-57-65	2863F/56-63-70	2928F/59-65-71	2995F/61-68-73
36	3582	2710F/48-58-66	2899F/56-64-71	2965F/59-66-73	3032F/62-69-74
34	3647	2739F/49-58-67	2930F/57-65-72	2997F/59-67-74	3065F/62-69-75
32	3671	2753F/49-59-67	2946F/57-65-72	3013F/60-68-74	3082F/62-70-76
30	3671	2761F/49-59-67	2955F/57-66-72	3022F/60-68-74	3091F/63-70-76
28	3672	2769F/49-59-68	2963F/58-66-73	3031F/60-68-74	3100F/63-70-76
26	3673	2777F/50-59-68	2972F/58-66-73	3040F/61-68-75	3110F/63-71-76
24	3674	2785F/50-60-68	2981F/58-66-73	3050F/61-69-75	3119F/64-71-77
22	3675	2793F/50-60-68	2990F/59-67-73	3059F/61-69-75	3129F/64-71-77
20	3676	2801F/51-60-68	2999F/59-67-74	3068F/62-69-75	3138F/64-72-77
18	3676	2809F/51-61-69	3008F/59-67-74	3077F/62-70-76	3148F/65-72-77
16	3677	2817F/51-61-69	3017F/59-68-74	3087F/62-70-76	3158F/65-72-78
14	3678	2826F/51-61-69	3027F/60-68-74	3096F/63-70-76	3168F/65-73-78
12	3679	2834F/52-61-69	3036F/60-68-75	3106F/63-71-76	3178F/66-73-78
10	3680	2843F/52-62-70	3045F/60-69-75	3116F/63-71-77	3188F/66-73-78
8	3681	2851F/52-62-70	3055F/61-69-75	3126F/64-71-77	3198F/66-74-79
6	3681	2860F/53-62-70	3065F/61-69-75	3136F/64-72-77	3209F/67-74-79
4	3682	2869F/53-63-70	3074F/61-70-76	3146F/64-72-77	3219F/67-74-79
2	3682	2877F/53-63-70	3084F/62-70-76	3156F/65-72-78	3229F/68-75-80
0	3683	2886F/54-63-71	3093F/62-70-76	3166F/65-72-78	3240F/68-75-80
-2	3683	2895F/54-63-71	3103F/63-70-76	3176F/65-73-78	3250F/68-75-80
-4	3683	2903F/54-64-71	3113F/63-71-77	3186F/66-73-78	3261F/69-76-80
-6	3683	2912F/55-64-71	3123F/63-71-77	3196F/66-73-79	3272F/69-76-81
-8	3683	2921F/55-64-72	3133F/64-71-77	3207F/66-74-79	3283F/69-76-81
-10	3684	2930F/55-65-72	3143F/64-72-77	3217F/67-74-79	3294F/70-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2528 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
20	23	555	0	37	585	0			

ENG-OUT PROCEDURE:

NONE

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ELEVATION 14 FT

RUNWAY 25L LEBL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2707	2300F/42-47-52	2477F/50-54-57	2538F/53-56-59	2600F/56-58-61
58A	2765	2335F/43-48-53	2513F/51-55-58	2575F/54-57-60	2638F/57-59-62
56A	2832	2374F/43-49-55	2555F/52-56-60	2617F/55-58-62	2681F/58-60-63
54	2903	2415F/44-50-56	2599F/53-57-61	2662F/56-59-63	2727F/59-61-65
52	2981	2460F/45-52-57	2646F/54-58-63	2710F/57-61-64	2773F/60-63-66
50	3058	2505F/46-53-59	2693F/55-60-64	2757F/58-62-66	2818F/60-64-68
48	3137	2548F/47-54-60	2738F/56-61-66	2800F/58-63-67	2862F/61-65-69
46	3214	2589F/48-55-62	2777F/56-62-67	2840F/59-64-68	2904F/62-66-70
44	3290	2630F/49-56-63	2816F/57-63-68	2880F/59-65-70	2945F/62-67-71
42	3364	2671F/49-57-64	2855F/57-64-69	2919F/60-66-71	2985F/63-68-73
40	3442	2707F/50-58-65	2893F/58-65-70	2958F/60-67-72	3024F/63-69-74
38	3513	2739F/50-59-66	2927F/58-65-71	2993F/61-68-73	3060F/63-70-75
36	3582	2774F/50-60-67	2964F/58-66-73	3030F/61-69-74	3098F/64-71-76
34	3647	2803F/51-61-68	2996F/59-67-73	3063F/61-69-75	3131F/64-72-77
32	3671	2818F/51-61-69	3012F/59-68-74	3080F/62-70-76	3149F/65-72-77
30	3671	2826F/51-61-69	3021F/59-68-74	3089F/62-70-76	3158F/65-72-78
28	3672	2834F/51-61-69	3030F/60-68-74	3098F/62-70-76	3168F/65-73-78
26	3673	2842F/52-62-69	3039F/60-68-75	3107F/63-71-76	3177F/66-73-78
24	3674	2850F/52-62-70	3048F/60-69-75	3117F/63-71-77	3187F/66-73-78
22	3675	2859F/52-62-70	3057F/61-69-75	3126F/63-71-77	3197F/66-74-79
20	3676	2867F/53-63-70	3066F/61-69-75	3135F/64-72-77	3207F/67-74-79
18	3676	2875F/53-63-70	3075F/61-70-76	3145F/64-72-77	3217F/67-74-79
16	3677	2883F/53-63-71	3085F/62-70-76	3155F/64-72-78	3227F/67-74-79
14	3678	2892F/54-63-71	3094F/62-70-76	3164F/65-72-78	3237F/68-75-80
12	3679	2901F/54-64-71	3104F/62-70-76	3174F/65-73-78	3247F/68-75-80
10	3680	2909F/54-64-71	3113F/63-71-77	3184F/65-73-78	3257F/68-75-80
8	3681	2918F/54-64-72	3123F/63-71-77	3194F/66-73-79	3268F/69-76-80
6	3681	2927F/55-65-72	3133F/63-71-77	3205F/66-74-79	3278F/69-76-81
4	3682	2936F/55-65-72	3142F/64-72-77	3215F/66-74-79	3289F/69-76-81
2	3682	2945F/55-65-72	3152F/64-72-78	3225F/67-74-79	3300F/70-77-81
0	3683	2953F/56-65-72	3162F/64-72-78	3235F/67-75-80	3311F/70-77-82
-2	3683	2962F/56-66-73	3172F/65-73-78	3246F/68-75-80	3322F/70-77-82
-4	3683	2971F/56-66-73	3182F/65-73-78	3256F/68-75-80	3334F/71-78-82
-6	3683	2981F/57-66-73	3192F/65-73-79	3267F/68-76-80	3345F/71-78-82
-8	3683	2990F/57-67-73	3203F/66-74-79	3277F/69-76-81	3356F/72-78-83
-10	3684	2999F/57-67-74	3213F/66-74-79	3288F/69-76-81	3368F/72-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2660 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25L	8	194	0	13	259	0	17	356	0
	26	557	0	35	678	0	36	728	0
	38	742	0	46	849	0	59	935	0

ENG-OUT PROCEDURE:

NONE

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ELEVATION		14 FT		RUNWAY 25R		LEBL	
*** FLAPS 05 ***		AIR COND OFF		ANTI-ICE OFF		EL PRAT BARCELONA	
777-200LR		GE90-110B1L				BARCELONA	
A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE						DATED 08-FEB-2017	
OAT	CLIMB	WIND COMPONENT IN KNOTS (MINUS		DENOTES TAILWIND)			
C	100KG	-10	0	10	20		
60A	2707	2559*/56-57-60	2674*/60-61-63	2707*/61-62-64	2738*/62-62-64		
				2711**62-62-64	2743**65-67-68		
58A	2765	2601*/56-58-61	2722*/62-62-64	2760*/63-63-65	2788*/63-64-65		
					2794**66-67-69		
56A	2832	2647*/57-59-62	2779*/64-64-66	2817*/65-65-67	2845*/64-65-67		
					2853**68-68-70		
54	2903	2694*/57-60-64	2837*/65-65-68	2877*/66-67-69	2905*/66-67-69		
					2915**69-69-71		
52	2981	2745*/57-62-65	2895*/65-67-69	2943*/68-68-71	2981*/69-70-72		
					2983**70-70-72		
50	3058	2794*/58-63-67	2949*/66-68-71	3000*/69-70-72	3049*/71-72-74		
48	3137	2843*/58-64-68	3002*/66-70-73	3055*/69-71-74	3107*/72-73-75		
46	3214	2889*/58-66-70	3052*/66-71-74	3107*/69-73-75	3161*/72-74-77		
44	3290	2935*/58-67-71	3101*/67-72-75	3157*/70-74-77	3213*/72-76-78		
42	3364	2976F/59-68-72	3149*/67-73-77	3206*/70-75-78	3264*/73-77-80		
40	3442	3014F/59-69-74	3195*/67-74-78	3253*/70-76-80	3314*/73-78-81		
38	3513	3050F/59-70-75	3237*/68-76-79	3298*/70-77-81	3361*/73-79-82		
36	3582	3088F/60-70-76	3282*/68-77-81	3345*/71-78-82	3409*/74-80-83		
34	3647	3121F/60-71-77	3323*/68-78-82	3387*/71-79-83	3480*/73-80-83		
32	3671	3138F/60-72-77	3342*/68-78-82	3407*/71-80-84	3502*/73-81-84		
30	3671	3147F/60-72-77	3351*/69-78-82	3419*/71-80-84	3511*/74-81-84		
28	3672	3156F/61-72-78	3359*/69-78-83	3434*/72-80-84	3519*/74-81-84		
26	3673	3164F/61-72-78	3368*/69-79-83	3448*/72-80-84	3528*/75-81-85		
24	3674	3174F/61-73-78	3377*/70-79-83	3462*/72-80-84	3536*/75-82-85		
22	3675	3183F/62-73-78	3385*/70-79-83	3477*/72-80-84	3545*/75-82-85		
20	3676	3192F/62-73-79	3394*/70-79-83	3489*/73-80-84	3553*/76-82-85		
18	3676	3201F/62-74-79	3403*/71-80-84	3498*/73-81-84	3561*/76-82-85		
16	3677	3210F/63-74-79	3411*/71-80-84	3506*/74-81-84	3570*/77-83-86		
14	3678	3220F/63-74-79	3426*/71-80-84	3515*/74-81-84	3579*/77-83-86		
12	3679	3230F/63-75-80	3441*/72-80-84	3524*/74-81-84	3587*/77-83-86		
10	3680	3239F/64-75-80	3456*/72-80-84	3532*/75-82-85	3596*/78-84-86		
8	3681	3249F/64-75-80	3470*/72-80-84	3541*/75-82-85	3605*/78-84-86		
6	3681	3259F/64-75-80	3485*/73-80-84	3550*/76-82-85	3613*/79-84-87		
4	3682	3269F/65-76-81	3494*/73-80-84	3558*/76-82-85	3622*/79-84-87		
2	3682	3277*/65-76-81	3502*/73-81-84	3567*/76-83-85	3630*/80-85-87		
0	3683	3285*/65-76-81	3511*/74-81-84	3575*/77-83-86	3639*/80-85-87		
-2	3683	3294*/66-77-81	3519*/74-81-84	3583*/77-83-86	3647*/81-85-87		

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY
 RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES:		23 M FOR TODA,		49 M FOR ASDA		OBS FROM LO-FT/M			
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	12	283	0	13	296	0	31	531	0
	33	557	0	36	630	0	40	682	0
	53	717	0	69	1157	0			

ENG-OUT PROCEDURE:
 NONE

ELEVATION 14 FT

RUNWAY 25R LEBL

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
BARCELONA
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-4	3683	3302*/66-77-81	3528*/75-81-85	3592*/78-83-86	3656*/81-85-88
-6	3683	3310*/66-77-81	3536*/75-82-85	3600*/78-84-86	3664*/82-86-88
-8	3683	3319*/67-77-82	3545*/76-82-85	3609*/79-84-87	3672*/82-86-88
-10	3684	3328*/67-78-82	3553*/76-82-85	3617*/79-84-87	3681*/83-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	12	283	0	13	296	0	31	531	0
	33	557	0	36	630	0	40	682	0
	53	717	0	69	1157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08L LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF CHARLES DE GAULLE
 CHARLES DE GAULLE
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2671	2826*/58-61-63	2867*/59-61-63	2880*/60-61-63	2893*/60-61-63
		2745**65-71-72	2785**73-78-78	2785**73-78-78	2785**74-78-78
58A	2728	2880F/59-62-64	2929*/61-62-64	2942*/61-62-64	2956*/62-62-64
		2793**65-72-72	2842**74-79-79	2842**75-79-79	2842**75-79-79
56A	2794	2922F/60-64-66	2997*/62-64-66	3011*/63-64-66	3025*/63-64-66
		2849**65-72-73	2907**76-81-81	2907**76-81-81	2907**77-81-81
54A	2861	2964F/61-66-68	3066*/63-66-68	3080*/64-66-68	3095*/65-66-68
		2906**65-72-74	2973**76-83-83	2977**78-83-83	2977**78-83-83
52	2935	3011F/63-68-70	3144*/65-68-70	3159*/65-68-70	3173*/66-68-70
		2969**65-73-74	3041**76-83-83	3057**79-86-86	3057**80-86-86
50	3010	3057F/64-71-73	3223*/66-71-73	3238*/67-71-73	3253*/68-71-73
		3032**65-73-75	3107**76-84-84	3131**79-87-87	3137**82-88-88
48	3090	3105F/66-73-75	3296F/68-73-75	3325*/68-73-75	3340*/69-73-75
		3097**65-74-76	3176**76-84-85	3199**79-88-88	3218**83-90-90
46	3167	3150F/65-74-77	3345F/69-75-77	3407*/70-75-77	3427*/71-75-77
			3241**76-84-85	3266**79-88-88	3291**83-91-92
44	3242	3193F/66-75-78	3393F/70-77-79	3499*/71-77-79	3515*/72-77-79
			3306**76-85-86	3334**79-88-89	3360**83-92-92
42	3315	3233T/66-76-79	3466F/72-79-81	3546F/72-79-81	3590*/73-79-81
			3369**76-85-86	3398**79-89-89	3434**83-92-92
40	3387	3251B/67-77-80	3521F/73-81-83	3592F/73-81-83	3662F/74-81-83
			3439**75-85-87	3481**79-89-89	3511**82-92-93
38	3465	3270B/66-77-80	3563F/73-81-83	3634F/73-81-83	3707F/74-81-83
			3510**75-85-87	3541**79-89-90	3571**82-93-93
36	3533	3291B/66-77-81	3603B/73-82-84	3678F/74-82-84	3751F/75-82-84
			3563**74-85-87	3598**79-89-91	3630**82-93-94
34	3595	3313B/66-77-81	3595B/74-84-86	3717F/75-84-86	3787F/76-84-86
			3610**73-85-87	3647**78-89-91	3682**82-93-94
32	3648	3336B/65-78-82	3648B/73-85-87	3738B/76-85-87	3787F/77-85-87
			3651**73-85-88	3688**77-89-91	3724**82-93-94
30	3649	3362B/65-79-83	3649B/73-85-87	3760B/76-85-87	3787F/77-85-87
			3656**73-86-88	3693**78-90-91	3730**82-94-95
28	3649	3388B/65-79-83	3649B/74-85-87	3772F/76-85-87	3787F/77-85-87
			3662**74-87-89	3699**78-90-92	3735**83-94-95
26	3650	3434B/64-80-84	3650B/75-85-87	3783F/76-85-87	3787F/77-85-87
			3667**74-87-89	3705**79-91-92	3741**83-95-96
24	3651	3453B/64-80-84	3656B/75-85-87	3787F/76-85-87	3787F/77-85-87
			3673**75-88-89	3710**79-92-93	3746**84-96-96
22	3651	3471B/65-80-84	3677B/75-85-87	3787F/76-85-87	3787F/77-85-87
			3678**75-88-90	3716**80-92-93	3752**84-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 660 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
08L	404	15759	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08L LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3652	3489B/65-80-84	3700B/75-85-88	3787F/76-85-88	3787F/77-85-88
			3684**76-89-90	3721**80-93-94	3758**85-97-97
18	3653	3499B/65-81-84	3722B/76-85-88	3787F/76-85-88	3787F/77-85-88
			3690**76-89-91	3727**81-93-94	3763**86-97-98
16	3653	3509B/65-81-84	3745B/76-85-88	3787F/77-85-88	3787F/77-85-88
			3696**77-90-91	3733**82-94-95	3769**86-98-99
14	3654	3520B/66-81-84	3768B/76-85-88	3787F/77-85-88	3787F/78-85-88
			3702**78-90-92	3739**82-94-95	3775**87-99-99
12	3655	3530B/66-82-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3708**78-91-92	3745**83-95-96	3781**87-99-00
10	3655	3541B/67-82-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3714**79-92-93	3751**83-96-96	3786**88-00-00
8	3656	3552B/67-82-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3720**79-92-93	3757**84-96-97	3787**89-00-00
6	3657	3563B/67-83-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3725**80-93-94	3763**85-97-98	3787**89-00-00
4	3657	3574B/68-83-86	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3731**80-93-94	3768**85-97-98	3787**89-00-00
2	3657	3585B/68-83-86	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3737**81-94-95	3774**86-98-99	3787**89-00-00
0	3658	3596B/69-84-86	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3743**82-95-96	3780**86-99-99	3787**89-00-00
-2	3658	3607B/69-84-86	3787F/77-85-88	3787F/77-85-88	3787F/78-85-88
			3749**82-95-96	3785**87-99-00	3787**89-00-00
-4	3658	3618B/69-84-87	3787F/77-85-88	3787F/78-85-88	3787F/78-85-88
			3754**83-96-97	3787**88-00-00	3787**90-00-00
-6	3658	3629B/70-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3760**84-96-97	3787**89-00-00	3787**90-00-00
-8	3658	3641B/70-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3766**84-97-98	3787**89-00-00	3787**90-00-00
-10	3658	3653B/71-85-88	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3772**85-98-98	3787**89-00-00	3787**90-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 660 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

08L	404	15759	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08LA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2671	2777*/58-61-63	2867*/59-61-63	2880*/60-61-63	2893*/60-61-63
		2746**66-71-72	2785**73-78-78	2785**73-78-78	2785**74-78-78
58A	2728	2823*/59-62-64	2926*/61-62-64	2942*/61-62-64	2956*/62-62-64
		2794**66-72-72	2842**74-79-79	2842**75-79-79	2842**75-79-79
56A	2794	2876*/60-64-66	2982*/62-64-66	3011*/63-64-66	3025*/63-64-66
		2850**66-72-73	2907**75-81-81	2907**76-81-81	2907**76-81-81
54A	2861	2928*/61-66-68	3038*/63-66-68	3073*/64-66-68	3094*/64-66-68
		2906**66-72-74	2975**76-83-83	2977**77-83-83	2977**78-83-83
52	2935	2986*/63-68-70	3100*/65-68-70	3137*/65-68-70	3173*/66-68-70
		2970**66-73-74	3043**76-84-84	3057**80-86-86	3057**80-86-86
50	3010	3045*/64-71-73	3161*/66-71-73	3200*/67-71-73	3237*/67-71-73
		3033**66-73-75	3110**76-84-84	3133**80-88-88	3137**81-88-88
48	3090	3105*/65-73-75	3225*/68-73-75	3264*/68-73-75	3305*/69-73-75
		3098**66-74-76	3179**76-84-85	3202**80-88-88	3218**84-90-90
46	3167	3153*/66-74-77	3285*/69-75-77	3328*/70-75-77	3371*/70-75-77
			3244**76-85-85	3269**80-88-89	3294**83-92-92
44	3242	3199*/66-76-78	3347*/70-77-79	3391*/71-77-79	3465*/72-77-79
			3309**76-85-86	3338**80-89-89	3364**83-92-92
42	3315	3233B/67-76-79	3406*/72-79-81	3493*/72-79-81	3536*/73-79-81
			3372**76-85-87	3401**80-89-90	3439**83-92-93
40	3387	3251B/66-77-80	3503*/73-81-83	3548*/73-81-83	3592*/74-81-83
			3444**76-86-87	3486**79-89-90	3514**83-93-93
38	3465	3270B/66-77-80	3544*/73-81-83	3590*/73-81-83	3636*/74-81-83
			3512**75-86-87	3545**79-89-90	3575**83-93-94
36	3533	3291B/66-77-81	3591*/73-82-84	3638*/74-82-84	3684*/75-82-84
			3563**74-86-87	3599**79-90-91	3634**83-93-94
34	3595	3313B/66-77-81	3595B/74-84-86	3686*/75-84-86	3734*/76-84-86
			3611**73-86-87	3648**78-89-91	3683**82-94-94
32	3648	3336B/65-78-82	3648B/73-85-87	3728*/76-85-87	3776*/77-85-87
			3652**73-86-88	3689**77-90-91	3726**81-94-95
30	3649	3362B/65-79-83	3649B/73-85-87	3735*/76-85-87	3783*/77-85-87
			3657**73-86-88	3695**78-90-92	3731**82-94-95
28	3649	3388B/65-79-83	3649B/74-85-87	3742*/76-85-87	3787F/77-85-87
			3663**74-87-89	3701**78-91-92	3737**83-95-96
26	3650	3449B/64-80-84	3650B/75-85-87	3749*/76-85-87	3787F/77-85-87
			3668**74-87-89	3706**79-91-93	3743**83-95-96
24	3651	3467B/64-80-84	3655B/75-85-87	3756*/76-85-87	3787F/77-85-87
			3674**75-88-90	3712**79-92-93	3748**84-96-97
22	3651	3486B/64-80-84	3677B/75-85-87	3764*/76-85-87	3787F/77-85-87
			3679**75-88-90	3717**80-92-94	3754**84-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 650 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4170 M LONG WITH 105 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.19 PERCENT FOR TODA AND -0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
08LA	2	106	0	10	242	0	404	15684	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08LA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3652	3496B/64-81-84	3699B/75-85-88	3771*/76-85-88	3787F/77-85-88
			3685**76-89-91	3723**80-93-94	3760**85-97-98
18	3653	3505B/65-81-84	3721B/75-85-88	3778*/76-85-88	3787F/77-85-88
			3691**76-89-91	3728**81-93-95	3765**85-98-98
16	3653	3515B/65-81-84	3736*/76-85-88	3786*/77-85-88	3787F/77-85-88
			3697**77-90-91	3734**81-94-95	3771**86-98-99
14	3654	3525B/66-81-84	3744*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3702**77-90-92	3740**82-95-96	3776**87-99-99
12	3655	3535B/66-82-85	3751*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3709**78-91-92	3746**83-95-96	3782**87-99-00
10	3655	3546B/66-82-85	3759*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3715**79-92-93	3752**83-96-97	3787**88-00-00
8	3656	3556B/67-82-85	3766*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3720**79-92-93	3758**84-96-97	3787**89-00-00
6	3657	3566B/67-83-85	3774*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3726**80-93-94	3764**84-97-98	3787**89-00-00
4	3657	3577B/68-83-86	3781*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3732**80-93-95	3770**85-98-98	3787**89-00-00
2	3657	3587B/68-83-86	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3738**81-94-95	3775**86-98-99	3787**89-00-00
0	3658	3597B/68-84-86	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3744**82-95-96	3781**86-99-99	3787**89-00-00
-2	3658	3608B/69-84-86	3787F/77-85-88	3787F/77-85-88	3787F/78-85-88
			3749**82-95-96	3787**87-00-00	3787**89-00-00
-4	3658	3618B/69-84-87	3787F/77-85-88	3787F/78-85-88	3787F/78-85-88
			3755**83-96-97	3787**88-00-00	3787**89-00-00
-6	3658	3629B/70-85-87	3787F/77-85-88	3787F/78-85-88	3787F/78-85-88
			3761**83-97-97	3787**89-00-00	3787**90-00-00
-8	3658	3639B/70-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3767**84-97-98	3787**89-00-00	3787**90-00-00
-10	3658	3650B/71-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3773**85-98-98	3787**89-00-00	3787**90-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 650 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4170 M LONG WITH 105 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.19 PERCENT FOR TODA AND -0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
08LA	2	106	0	10	242	0	404	15684	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08R LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF CHARLES DE GAULLE
 CHARLES DE GAULLE
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2671	2298F/42-47-52	2474F/50-54-57	2535F/53-56-59	2597F/56-58-61
58A	2728	2332F/43-48-53	2510F/51-55-58	2572F/54-57-60	2635F/57-59-62
56A	2794	2372F/43-49-54	2552F/52-56-60	2614F/55-58-61	2678F/58-60-63
54A	2861	2411F/44-50-56	2594F/53-57-61	2656F/56-59-63	2721F/59-62-64
52	2935	2454F/45-52-57	2639F/54-58-62	2703F/57-61-64	2766F/60-63-66
50	3010	2498F/46-53-59	2686F/55-60-64	2749F/58-62-66	2811F/60-64-67
48	3090	2543F/47-54-60	2731F/56-61-65	2793F/58-63-67	2856F/61-65-69
46	3167	2584F/48-55-61	2771F/56-62-67	2833F/59-64-68	2897F/61-66-70
44	3242	2625F/49-56-63	2809F/57-63-68	2873F/59-65-69	2938F/62-67-71
42	3315	2665F/49-57-64	2848F/57-64-69	2912F/60-66-71	2978F/62-68-72
40	3387	2701F/50-58-65	2886F/57-65-70	2951F/60-67-72	3017F/63-69-74
38	3465	2734F/50-59-66	2921F/58-65-71	2986F/61-68-73	3053F/63-70-75
36	3533	2768F/50-60-67	2958F/58-66-72	3023F/61-69-74	3091F/64-71-76
34	3595	2798F/50-61-68	2990F/59-67-73	3056F/61-69-75	3125F/64-72-77
32	3648	2823F/51-61-69	3017F/59-68-74	3084F/62-70-76	3153F/64-72-78
30	3649	2831F/51-61-69	3025F/59-68-74	3093F/62-70-76	3162F/65-73-78
28	3649	2839F/51-62-69	3034F/59-68-75	3102F/62-71-76	3172F/65-73-78
26	3650	2847F/52-62-70	3043F/60-69-75	3111F/62-71-76	3181F/65-73-78
24	3651	2855F/52-62-70	3052F/60-69-75	3121F/63-71-77	3191F/66-73-79
22	3651	2863F/52-63-70	3061F/60-69-75	3130F/63-71-77	3200F/66-74-79
20	3652	2871F/52-63-70	3070F/61-70-75	3139F/63-72-77	3210F/66-74-79
18	3653	2879F/53-63-70	3079F/61-70-76	3149F/64-72-77	3220F/67-74-79
16	3653	2888F/53-63-71	3089F/61-70-76	3158F/64-72-78	3230F/67-75-80
14	3654	2896F/53-64-71	3098F/62-70-76	3168F/64-73-78	3240F/67-75-80
12	3655	2905F/54-64-71	3107F/62-71-76	3178F/65-73-78	3250F/68-75-80
10	3655	2913F/54-64-71	3117F/62-71-77	3188F/65-73-78	3261F/68-76-80
8	3656	2922F/54-65-72	3127F/63-71-77	3198F/66-74-79	3271F/68-76-81
6	3657	2931F/55-65-72	3136F/63-72-77	3208F/66-74-79	3282F/69-76-81
4	3657	2940F/55-65-72	3146F/63-72-77	3218F/66-74-79	3293F/69-77-81
2	3657	2949F/55-65-72	3156F/64-72-78	3229F/67-75-79	3304F/69-77-81
0	3658	2957F/56-66-73	3166F/64-73-78	3239F/67-75-80	3315F/70-77-82
-2	3658	2966F/56-66-73	3176F/64-73-78	3249F/67-75-80	3326F/70-78-82
-4	3658	2976F/56-66-73	3186F/65-73-78	3260F/68-76-80	3338F/71-78-82
-6	3658	2985F/57-67-73	3196F/65-74-79	3270F/68-76-81	3349F/71-78-82
-8	3658	2994F/57-67-73	3207F/66-74-79	3281F/68-76-81	3361F/71-79-83
-10	3658	3003F/57-67-74	3217F/66-74-79	3293F/69-77-81	3372F/72-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.24 PERCENT FOR TODA AND -0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
08R	248	16300	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 392 FT

RUNWAY 09L LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF CHARLES DE GAULLE
 CHARLES DE GAULLE
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2671	2280F/42-47-51	2453F/50-53-57	2514F/53-55-58	2574F/56-57-60
58A	2728	2314F/42-48-53	2489F/51-54-58	2550F/54-56-59	2612F/57-58-61
56A	2794	2353F/43-49-54	2531F/52-55-59	2593F/55-57-61	2656F/57-60-63
54A	2861	2392F/44-50-55	2572F/53-56-60	2635F/56-59-62	2699F/58-61-64
52	2935	2436F/45-51-57	2618F/54-58-62	2681F/57-60-64	2745F/59-62-65
50	3010	2480F/46-52-58	2665F/55-59-63	2729F/58-61-65	2790F/60-63-67
48	3090	2525F/47-53-60	2713F/56-60-65	2774F/58-62-66	2835F/61-64-68
46	3167	2566F/48-54-61	2752F/56-61-66	2814F/59-63-68	2877F/61-65-69
44	3242	2606F/49-56-62	2791F/57-62-67	2854F/59-64-69	2917F/62-66-71
42	3315	2647F/49-57-63	2830F/57-63-68	2893F/60-65-70	2958F/62-67-72
40	3387	2684F/50-58-65	2867F/58-64-70	2932F/60-66-71	2997F/63-68-73
38	3465	2717F/50-58-66	2902F/58-65-71	2967F/61-67-72	3033F/63-69-74
36	3533	2751F/51-59-67	2939F/58-66-72	3004F/61-68-73	3071F/64-70-75
34	3595	2781F/51-60-68	2971F/59-66-73	3037F/61-69-74	3105F/64-71-76
32	3648	2806F/51-61-68	2998F/59-67-74	3065F/62-69-75	3133F/65-72-77
30	3649	2814F/51-61-69	3007F/59-67-74	3073F/62-70-76	3142F/65-72-77
28	3649	2822F/52-61-69	3015F/60-68-74	3082F/62-70-76	3151F/65-72-78
26	3650	2830F/52-61-69	3024F/60-68-74	3091F/63-70-76	3161F/66-72-78
24	3651	2837F/52-62-69	3033F/60-68-74	3101F/63-71-76	3170F/66-73-78
22	3651	2846F/52-62-70	3042F/61-69-75	3110F/63-71-76	3180F/66-73-78
20	3652	2854F/53-62-70	3050F/61-69-75	3119F/64-71-77	3190F/67-73-78
18	3653	2862F/53-63-70	3060F/61-69-75	3128F/64-71-77	3199F/67-74-79
16	3653	2870F/53-63-70	3069F/62-69-75	3138F/64-72-77	3209F/67-74-79
14	3654	2878F/54-63-70	3078F/62-70-76	3148F/65-72-77	3219F/68-74-79
12	3655	2887F/54-63-71	3087F/62-70-76	3157F/65-72-78	3229F/68-75-79
10	3655	2895F/54-64-71	3097F/63-70-76	3167F/65-73-78	3239F/68-75-80
8	3656	2904F/55-64-71	3106F/63-71-76	3177F/66-73-78	3249F/69-75-80
6	3657	2913F/55-64-71	3116F/63-71-77	3187F/66-73-78	3260F/69-76-80
4	3657	2921F/55-65-72	3126F/64-71-77	3197F/66-74-79	3270F/69-76-81
2	3657	2930F/56-65-72	3136F/64-72-77	3207F/67-74-79	3280F/70-76-81
0	3658	2939F/56-65-72	3145F/64-72-77	3218F/67-74-79	3291F/70-77-81
-2	3658	2948F/56-65-72	3155F/65-72-78	3228F/68-75-79	3302F/70-77-81
-4	3658	2957F/57-66-73	3165F/65-73-78	3238F/68-75-80	3314F/71-77-82
-6	3658	2966F/57-66-73	3175F/65-73-78	3248F/68-75-80	3325F/71-78-82
-8	3658	2975F/57-66-73	3186F/66-73-78	3259F/69-76-80	3336F/72-78-82
-10	3658	2985F/58-67-73	3196F/66-74-79	3269F/69-76-81	3348F/72-78-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 640 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09L	277	13614	0	287	13672	0	297	13825	0
	431	14094	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 392 FT

RUNWAY 09R

LFPG

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2671	2687*/58-61-63	2768*/60-61-63	2793*/60-61-63	2818*/61-61-63
		2703**63-65-66	2785**74-78-78	2785**74-78-78	2785**74-78-78
58A	2728	2736*/59-62-64	2820*/61-62-64	2846*/62-62-64	2873*/62-62-64
		2753**64-66-67	2838**75-79-79	2842**75-79-79	2842**75-79-79
56A	2794	2794*/61-64-66	2879*/63-64-66	2906*/63-64-66	2933*/64-64-66
		2812**65-67-68	2898**76-80-80	2907**77-81-81	2907**77-81-81
54A	2861	2861*/64-66-68	2938*/64-66-68	2966*/64-66-68	2994*/65-66-68
		2871**66-68-69	2957**77-80-80	2977**79-83-83	2977**79-83-83
52	2935	2934*/67-68-70	3004*/65-68-70	3033*/66-68-70	3062*/67-68-70
			3024**77-81-81	3049**80-84-85	3057**80-86-86
50	3010	2991*/67-70-72	3069*/67-71-73	3100*/67-71-73	3130*/68-71-73
			3089**77-81-82	3116**80-85-85	3137**83-88-88
48	3090	3049*/68-71-74	3138*/68-73-75	3170*/69-73-75	3201*/70-73-75
			3156**77-81-82	3185**80-85-86	3211**84-89-89
46	3167	3102*/68-73-75	3202*/70-75-77	3236*/70-75-77	3269*/71-75-77
			3221**77-82-83	3250**80-86-86	3278**84-90-90
44	3242	3153*/68-74-77	3266*/71-77-79	3301*/72-77-79	3337*/73-77-79
			3284**77-82-83	3316**80-86-87	3347**84-90-90
42	3315	3203*/68-75-78	3328*/72-79-81	3365*/73-79-81	3402*/74-79-81
			3346**77-82-84	3380**81-86-87	3411**84-90-91
40	3387	3248B/68-76-79	3389*/73-81-83	3439*/74-81-83	3495*/75-81-83
			3407**77-83-84	3454**80-86-88	3496**84-90-91
38	3465	3270T/67-77-80	3465*/74-81-83	3509*/74-81-83	3546*/75-81-83
			3484**77-83-85	3521**80-87-88	3555**84-91-91
36	3533	3291T/67-77-81	3533*/75-82-84	3562*/75-82-84	3600*/76-82-84
			3537**76-83-85	3578**80-87-89	3613**84-91-92
34	3595	3313B/67-77-81	3578B/75-83-86	3614*/76-84-86	3653*/77-84-86
				3625**79-87-89	3665**84-91-93
32	3648	3336B/66-78-82	3611B/75-84-87	3659*/77-85-87	3699*/78-85-87
				3665**79-87-89	3707**83-91-93
30	3649	3362B/66-79-83	3619B/75-84-87	3664*/77-85-87	3704*/78-85-87
				3671**79-88-89	3713**84-92-93
28	3649	3388B/66-79-83	3627B/76-85-87	3669*/77-85-87	3709*/78-85-87
				3677**80-88-90	3718**84-93-94
26	3650	3420B/66-80-84	3635B/76-85-87	3674*/77-85-87	3714*/78-85-87
				3682**80-89-90	3724**85-93-94
24	3651	3433B/66-80-84	3643B/77-85-87	3679*/77-85-87	3719*/78-85-87
				3688**81-89-91	3730**85-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	51	813	0	283	13013	0	293	13071	0
	303	13225	0	428	13458	0	437	13494	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09R

LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3651	3446B/66-80-84	3651B/77-85-87	3684*/77-85-87	3724*/78-85-87
				3694**82-90-91	3735**86-94-95
20	3652	3459B/67-80-84	3652*/77-85-88	3689*/77-85-88	3729*/78-85-88
			3657**78-86-88	3700**82-90-92	3741**87-95-96
18	3653	3472B/67-80-84	3654*/76-85-88	3694*/77-85-88	3734*/78-85-88
			3663**78-86-88	3706**83-91-92	3747**87-96-96
16	3653	3485B/67-80-84	3659*/77-85-88	3699*/77-85-88	3739*/78-85-88
			3669**79-87-89	3712**83-92-93	3753**88-96-97
14	3654	3494B/68-81-84	3664*/77-85-88	3704*/78-85-88	3744*/78-85-88
			3674**79-88-89	3718**84-92-93	3759**88-97-97
12	3655	3502B/68-81-84	3669*/77-85-88	3710*/78-85-88	3750*/78-85-88
			3681**80-88-90	3724**84-93-94	3765**89-97-98
10	3655	3510B/69-81-84	3675*/77-85-88	3715*/78-85-88	3755*/79-85-88
			3687**81-89-90	3730**85-93-94	3771**90-98-99
8	3656	3518B/69-81-84	3680*/77-85-88	3720*/78-85-88	3760*/79-85-88
			3693**81-89-91	3736**86-94-95	3776**90-99-99
6	3657	3526B/70-82-84	3685*/77-85-88	3725*/78-85-88	3765*/79-85-88
			3699**82-90-91	3742**86-95-96	3782**91-99-00
4	3657	3535B/70-82-85	3690*/77-85-88	3730*/78-85-88	3770*/79-85-88
			3705**82-90-92	3748**87-95-96	3787**91-00-00
2	3657	3543B/70-82-85	3695*/77-85-88	3735*/78-85-88	3775*/79-85-88
			3712**83-91-93	3754**88-96-97	3787**91-00-00
0	3658	3551B/71-82-85	3700*/77-85-88	3740*/78-85-88	3780*/79-85-88
			3718**84-92-93	3760**88-96-97	3787**90-00-00
-2	3658	3559B/71-83-85	3705*/77-85-88	3745*/78-85-88	3785*/79-85-88
			3723**84-92-94	3766**89-97-98	3787**90-00-00
-4	3658	3567B/72-83-85	3710*/77-85-88	3750*/78-85-88	3787F/79-85-88
			3729**85-93-94	3772**90-98-98	3787**90-00-00
-6	3658	3575B/72-83-86	3715*/78-85-88	3755*/78-85-88	3787F/79-85-88
			3735**85-94-95	3778**90-98-99	3787**90-00-00
-8	3658	3583B/73-83-86	3720*/78-85-88	3760*/79-85-88	3787F/79-85-88
			3741**86-94-95	3783**91-99-00	3787**90-00-00
-10	3658	3591B/74-83-86	3724*/78-85-88	3764*/79-85-88	3787F/79-85-88
			3747**87-95-96	3787**91-00-00	3787**91-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	51	813	0	283	13013	0	293	13071	0
	303	13225	0	428	13458	0	437	13494	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09RA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF CHARLES DE GAULLE
 CHARLES DE GAULLE
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2671	2681*/58-61-63	2763*/60-61-63	2788*/60-61-63	2812*/61-61-63
		2695**63-64-65	2781**73-77-77	2785**74-78-78	2785**74-78-78
58A	2728	2730*/59-62-64	2814*/61-62-64	2841*/62-62-64	2867*/62-62-64
		2746**63-65-66	2833**74-78-78	2842**75-79-79	2842**75-79-79
56A	2794	2794*/62-64-66	2873*/63-64-66	2900*/63-64-66	2927*/64-64-66
		2804**65-66-67	2892**75-79-79	2907**77-81-81	2907**77-81-81
54A	2861	2861*/65-66-68	2932*/64-66-68	2960*/64-66-68	2988*/65-66-68
		2862**66-67-69	2953**76-79-80	2977**80-83-83	2977**79-83-83
52	2935	2928*/67-68-70	2997*/65-68-70	3027*/66-68-70	3056*/67-68-70
			3021**77-80-81	3047**80-84-84	3057**80-86-86
50	3010	2985*/68-70-72	3063*/67-71-73	3094*/67-71-73	3124*/68-71-73
			3086**77-80-81	3113**80-84-85	3137**83-88-88
48	3090	3043*/68-71-74	3131*/68-73-75	3163*/69-73-75	3195*/70-73-75
			3153**77-81-82	3182**81-85-85	3208**84-89-89
46	3167	3096*/68-73-75	3195*/70-75-77	3229*/70-75-77	3262*/71-75-77
			3217**77-81-82	3247**81-85-86	3275**84-89-89
44	3242	3147*/68-74-77	3258*/71-77-79	3294*/72-77-79	3330*/73-77-79
			3280**77-81-83	3313**81-85-86	3344**84-89-90
42	3315	3197*/68-75-78	3321*/72-79-81	3358*/73-79-81	3394*/74-79-81
			3342**77-82-84	3376**81-86-87	3408**84-90-91
40	3387	3242B/68-76-79	3387*/74-81-83	3426*/74-81-83	3488*/75-81-83
			3403**77-82-84	3449**80-86-87	3493**84-90-91
38	3465	3270T/67-77-80	3465*/75-81-83	3501*/74-81-83	3538*/75-81-83
			3479**77-82-84	3517**80-86-88	3552**84-90-91
36	3533	3291T/67-77-81	3533B/76-82-84	3554*/75-82-84	3592*/76-82-84
				3574**80-87-88	3609**84-91-92
34	3595	3313B/67-77-81	3571B/75-83-85	3606*/76-84-86	3646*/77-84-86
				3621**80-87-88	3662**84-91-92
32	3648	3336B/66-78-82	3604B/75-84-86	3651*/77-85-87	3691*/78-85-87
				3661**79-87-89	3703**83-91-92
30	3649	3362B/66-79-83	3612B/75-84-87	3656*/77-85-87	3696*/78-85-87
				3667**79-87-89	3709**84-92-93
28	3649	3388B/66-79-83	3620B/76-84-87	3661*/77-85-87	3701*/78-85-87
				3672**80-88-90	3715**84-92-93
26	3650	3410B/66-80-84	3628B/76-85-87	3666*/77-85-87	3706*/78-85-87
				3678**81-88-90	3720**85-93-94
24	3651	3422B/66-80-84	3636B/77-85-87	3671*/77-85-87	3711*/78-85-87
				3684**81-89-90	3726**86-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET
09RA	16	393	0	52	790	0
	294	13071	0	304	13225	0
	438	13287	0			

ENG-OUT PROCEDURE:
 NONE

ELEVATION 392 FT

RUNWAY 09RA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3651	3436B/67-80-84	3644B/77-85-87	3676*/77-85-87	3716*/78-85-87
				3690**82-89-91	3732**86-94-95
20	3652	3449B/67-80-84	3652*/78-85-88	3681*/77-85-88	3721*/78-85-88
				3696**82-90-91	3737**87-94-95
18	3653	3462B/67-80-84	3653*/77-85-88	3686*/77-85-88	3726*/78-85-88
			3658**78-86-88	3702**83-90-92	3743**87-95-96
16	3653	3474B/68-80-84	3653*/77-85-88	3691*/77-85-88	3731*/78-85-88
			3664**79-86-89	3708**83-91-92	3749**88-96-97
14	3654	3487B/68-80-84	3656*/77-85-88	3696*/78-85-88	3736*/78-85-88
			3670**80-87-89	3714**84-92-93	3755**89-96-97
12	3655	3495B/68-81-84	3661*/77-85-88	3701*/78-85-88	3742*/78-85-88
			3676**80-88-90	3720**85-92-94	3762**89-97-98
10	3655	3503B/69-81-84	3666*/77-85-88	3707*/78-85-88	3747*/79-85-88
			3682**81-88-90	3726**85-93-94	3767**90-97-98
8	3656	3511B/69-81-84	3672*/77-85-88	3712*/78-85-88	3752*/79-85-88
			3688**81-89-91	3732**86-93-95	3773**90-98-99
6	3657	3520B/70-81-84	3677*/77-85-88	3717*/78-85-88	3757*/79-85-88
			3695**82-89-91	3738**86-94-95	3778**91-99-99
4	3657	3528B/70-82-85	3682*/77-85-88	3722*/78-85-88	3762*/79-85-88
			3701**82-90-92	3744**87-95-96	3783**91-99-00
2	3657	3536B/71-82-85	3687*/77-85-88	3727*/78-85-88	3767*/79-85-88
			3707**83-91-92	3750**88-95-96	3787**92-00-00
0	3658	3544B/71-82-85	3692*/77-85-88	3732*/78-85-88	3772*/79-85-88
			3713**84-91-93	3756**88-96-97	3787**91-00-00
-2	3658	3552B/72-82-85	3697*/77-85-88	3737*/78-85-88	3777*/79-85-88
			3719**84-92-93	3762**89-97-97	3787**90-00-00
-4	3658	3560B/72-83-85	3702*/77-85-88	3742*/78-85-88	3781*/79-85-88
			3725**85-93-94	3768**90-97-98	3787**90-00-00
-6	3658	3568B/73-83-86	3706*/78-85-88	3747*/78-85-88	3786*/79-85-88
			3731**86-93-94	3774**90-98-99	3787**90-00-00
-8	3658	3576B/73-83-86	3711*/78-85-88	3752*/79-85-88	3787F/79-85-88
			3737**86-94-95	3779**91-99-99	3787**90-00-00
-10	3658	3584B/74-83-86	3716*/78-85-88	3756*/79-85-88	3787F/79-85-88
			3743**87-94-96	3785**92-99-00	3787**91-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09RA	16	393	0	52	790	0	284	13013	0
	294	13071	0	304	13225	0	429	13249	0
	438	13287	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26L LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF CHARLES DE GAULLE
 CHARLES DE GAULLE
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2671	2276F/42-46-51	2449F/50-53-56	2509F/53-55-58	2570F/56-57-60
58A	2728	2311F/42-47-52	2485F/51-54-58	2546F/54-56-59	2608F/56-58-61
56A	2794	2350F/43-49-54	2527F/52-55-59	2588F/55-57-61	2651F/57-59-62
54A	2861	2389F/44-50-55	2568F/53-56-60	2630F/56-58-62	2694F/58-61-64
52	2935	2432F/45-51-57	2614F/54-57-62	2677F/57-60-63	2741F/59-62-65
50	3010	2476F/46-52-58	2661F/55-59-63	2724F/58-61-65	2786F/60-63-67
48	3090	2521F/47-53-59	2709F/56-60-65	2770F/58-62-66	2831F/61-64-68
46	3167	2562F/48-54-61	2749F/56-61-66	2810F/59-63-68	2873F/61-65-69
44	3242	2603F/49-55-62	2787F/57-62-67	2850F/59-64-69	2913F/62-66-71
42	3315	2644F/49-56-63	2826F/57-63-68	2889F/60-65-70	2953F/62-67-72
40	3387	2681F/50-57-65	2864F/58-64-70	2928F/60-66-71	2993F/63-68-73
38	3465	2714F/50-58-66	2899F/58-65-71	2963F/61-67-72	3029F/63-69-74
36	3533	2748F/51-59-67	2935F/59-66-72	3000F/61-68-73	3067F/64-70-75
34	3595	2778F/51-60-68	2967F/59-66-73	3033F/62-69-74	3101F/64-71-76
32	3648	2803F/51-61-68	2994F/59-67-73	3061F/62-69-75	3129F/65-71-77
30	3649	2811F/51-61-69	3003F/59-67-74	3070F/62-70-75	3138F/65-72-77
28	3649	2818F/52-61-69	3011F/60-68-74	3078F/62-70-76	3147F/65-72-77
26	3650	2826F/52-61-69	3020F/60-68-74	3087F/63-70-76	3157F/66-72-78
24	3651	2834F/52-62-69	3029F/60-68-74	3097F/63-70-76	3166F/66-73-78
22	3651	2842F/53-62-69	3038F/61-68-75	3106F/63-71-76	3176F/66-73-78
20	3652	2850F/53-62-70	3047F/61-69-75	3115F/64-71-77	3185F/67-73-78
18	3653	2858F/53-62-70	3056F/61-69-75	3124F/64-71-77	3195F/67-74-79
16	3653	2866F/53-63-70	3065F/62-69-75	3134F/64-72-77	3205F/67-74-79
14	3654	2875F/54-63-70	3074F/62-70-76	3144F/65-72-77	3215F/68-74-79
12	3655	2883F/54-63-71	3083F/62-70-76	3153F/65-72-78	3225F/68-75-79
10	3655	2892F/54-64-71	3093F/63-70-76	3163F/65-73-78	3235F/68-75-80
8	3656	2900F/55-64-71	3102F/63-71-76	3173F/66-73-78	3245F/69-75-80
6	3657	2909F/55-64-71	3112F/63-71-77	3183F/66-73-78	3255F/69-75-80
4	3657	2918F/55-64-71	3122F/64-71-77	3193F/67-74-79	3265F/69-76-80
2	3657	2927F/56-65-72	3131F/64-72-77	3203F/67-74-79	3276F/70-76-81
0	3658	2936F/56-65-72	3141F/64-72-77	3213F/67-74-79	3287F/70-76-81
-2	3658	2944F/56-65-72	3151F/65-72-78	3223F/68-74-79	3298F/70-77-81
-4	3658	2953F/57-66-72	3161F/65-72-78	3233F/68-75-80	3309F/71-77-81
-6	3658	2962F/57-66-73	3171F/65-73-78	3244F/68-75-80	3320F/71-77-82
-8	3658	2972F/57-66-73	3181F/66-73-78	3254F/69-75-80	3331F/72-78-82
-10	3658	2981F/58-67-73	3192F/66-73-79	3265F/69-76-80	3343F/72-78-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.24 PERCENT FOR TODA AND 0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

26L NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 392 FT

RUNWAY 26R LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF CHARLES DE GAULLE
 CHARLES DE GAULLE
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2671	2727*/58-61-63	2804*/60-61-63	2828*/60-61-63	2851*/61-61-63
		2734**65-69-70	2785**73-78-78	2785**74-78-78	2785**74-78-78
58A	2728	2777*/60-62-64	2856*/61-62-64	2882*/62-62-64	2907*/62-62-64
		2782**65-70-71	2842**75-79-79	2842**75-79-79	2842**76-79-79
56A	2794	2834*/61-64-66	2917*/63-64-66	2943*/63-64-66	2968*/64-64-66
		2838**65-70-71	2906**75-81-81	2907**77-81-81	2907**77-81-81
54A	2861	2892*/62-66-68	2977*/64-66-68	3004*/65-66-68	3031*/65-66-68
		2894**65-71-72	2966**75-82-82	2977**78-83-83	2977**79-83-83
52	2935	2956*/64-68-70	3044*/65-68-70	3073*/66-68-70	3101*/67-68-70
		2956**65-71-73	3033**75-82-82	3055**79-85-85	3057**80-86-86
50	3010	3020*/65-71-73	3112*/67-71-73	3142*/68-71-73	3171*/68-71-73
		3019**65-72-73	3100**76-82-83	3123**79-86-86	3137**83-88-88
48	3090	3079*/66-72-75	3182*/68-73-75	3213*/69-73-75	3243*/70-73-75
			3167**76-83-84	3191**79-86-87	3215**83-90-90
46	3167	3128*/66-74-76	3248*/70-75-77	3280*/71-75-77	3313*/71-75-77
			3232**76-83-84	3258**79-87-87	3282**83-90-90
44	3242	3173F/66-75-77	3315*/71-77-79	3349*/72-77-79	3384*/73-77-79
			3297**76-84-85	3325**79-87-88	3352**83-90-91
42	3315	3216F/67-76-79	3379*/72-79-81	3418*/73-79-81	3476*/74-79-81
			3360**76-84-85	3389**79-87-88	3420**83-91-91
40	3387	3251T/67-77-80	3463*/73-81-83	3508*/74-81-83	3542*/75-81-83
			3426**76-84-86	3468**79-88-89	3501**82-91-92
38	3465	3270T/67-77-80	3522*/74-81-83	3559*/74-81-83	3595*/75-81-83
			3500**75-84-86	3531**79-88-89	3562**82-91-92
36	3533	3291T/67-77-81	3572*/74-82-84	3614*/75-82-84	3650*/76-82-84
			3556**75-85-87	3589**79-88-90	3620**82-92-93
34	3595	3313B/67-77-81	3595B/75-84-86	3664*/76-84-86	3705*/77-84-86
			3605**75-85-87	3641**79-89-90	3673**83-92-93
32	3648	3336B/67-78-82	3642B/74-85-87	3707*/77-85-87	3751*/78-85-87
				3683**79-89-91	3718**83-93-94
30	3649	3362B/66-79-83	3649B/75-85-87	3713*/77-85-87	3756*/78-85-87
			3651**75-85-88	3689**79-89-91	3723**83-93-94
28	3649	3388B/66-79-83	3649B/75-85-87	3719*/77-85-87	3761*/78-85-87
			3657**75-86-88	3694**80-90-92	3729**84-94-95
26	3650	3414B/66-80-84	3650B/76-85-87	3726*/77-85-87	3766*/78-85-87
			3662**76-87-89	3700**80-90-92	3734**84-94-95
24	3651	3433B/66-80-84	3666B/76-85-87	3732*/77-85-87	3771*/78-85-87
			3668**76-87-89	3706**81-91-92	3739**85-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26R	23	534	0	46	1061	0	246	24850	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26R LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3651	3451B/66-80-84	3689B/76-85-87	3737*/77-85-87	3776*/78-85-87
			3673**77-88-89	3711**81-92-93	3745**85-95-96
20	3652	3469B/67-80-84	3700*/76-85-88	3742*/77-85-88	3781*/78-85-88
			3679**77-88-90	3717**82-92-93	3750**86-96-97
18	3653	3488B/67-80-84	3706*/77-85-88	3747*/77-85-88	3786*/78-85-88
			3685**78-89-90	3722**82-93-94	3755**86-96-97
16	3653	3498B/67-81-84	3712*/77-85-88	3752*/78-85-88	3787F/78-85-88
			3691**78-89-91	3728**83-93-94	3761**87-97-98
14	3654	3508B/67-81-84	3718*/77-85-88	3757*/78-85-88	3787F/78-85-88
			3697**79-90-91	3733**83-94-95	3766**87-98-98
12	3655	3519B/68-81-84	3723*/77-85-88	3763*/78-85-88	3787F/79-85-88
			3703**80-90-92	3739**84-94-95	3771**88-98-99
10	3655	3529B/68-82-85	3729*/77-85-88	3768*/78-85-88	3787F/79-85-88
			3709**80-91-92	3745**84-95-96	3777**88-99-99
8	3656	3540B/69-82-85	3734*/77-85-88	3773*/78-85-88	3787F/79-85-88
			3715**81-92-93	3750**85-96-96	3782**89-99-00
6	3657	3551B/69-82-85	3739*/77-85-88	3778*/78-85-88	3787F/79-85-88
			3721**81-92-93	3756**86-96-97	3787**89-00-00
4	3657	3561B/69-83-85	3744*/77-85-88	3783*/78-85-88	3787F/79-85-88
			3727**82-93-94	3762**86-97-97	3787**90-00-00
2	3657	3572B/70-83-86	3749*/77-85-88	3787F/78-85-88	3787F/79-85-88
			3732**83-93-95	3767**87-97-98	3787**90-00-00
0	3658	3583B/70-83-86	3754*/77-85-88	3787F/78-85-88	3787F/79-85-88
			3738**83-94-95	3772**87-98-98	3787**90-00-00
-2	3658	3595B/71-84-86	3758*/78-85-88	3787F/78-85-88	3787F/79-85-88
			3744**84-95-96	3777**88-98-99	3787**90-00-00
-4	3658	3606B/71-84-86	3763*/78-85-88	3787F/79-85-88	3787F/79-85-88
			3750**84-95-96	3782**88-99-00	3787**90-00-00
-6	3658	3616B/72-84-87	3768*/78-85-88	3787F/79-85-88	3787F/79-85-88
			3755**85-96-97	3787**89-00-00	3787**91-00-00
-8	3658	3626B/72-85-87	3773*/78-85-88	3787F/79-85-88	3787F/80-85-88
			3761**85-96-97	3787**90-00-00	3787**91-00-00
-10	3658	3635B/72-85-87	3777*/78-85-88	3787F/79-85-88	3787F/80-85-88
			3766**86-97-98	3787**90-00-00	3787**91-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26R	23	534	0	46	1061	0	246	24850	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26RA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2671	2731*/58-61-63	2807*/60-61-63	2831*/60-61-63	2853*/61-61-63
		2741**66-71-71	2785**73-78-78	2785**74-78-78	2785**74-78-78
58A	2728	2782*/60-62-64	2860*/61-62-64	2885*/62-62-64	2909*/62-62-64
		2789**66-71-72	2842**75-79-79	2842**75-79-79	2842**76-79-79
56A	2794	2839*/61-64-66	2921*/63-64-66	2946*/63-64-66	2972*/64-64-66
		2845**66-71-72	2907**76-81-81	2907**77-81-81	2907**77-81-81
54A	2861	2897*/62-66-68	2981*/64-66-68	3008*/65-66-68	3034*/65-66-68
		2902**66-72-73	2973**76-83-83	2977**78-83-83	2977**79-83-83
52	2935	2962*/64-68-70	3049*/66-68-70	3077*/66-68-70	3105*/67-68-70
		2964**66-72-74	3041**77-83-83	3057**80-86-86	3057**81-86-86
50	3010	3026*/65-71-73	3117*/67-71-73	3146*/68-71-73	3175*/68-71-73
		3027**67-73-74	3108**77-84-84	3131**80-87-87	3137**82-88-88
48	3090	3093*/66-73-75	3187*/69-73-75	3218*/69-73-75	3248*/70-73-75
		3092**67-73-75	3176**77-84-85	3200**80-88-88	3218**84-90-90
46	3167	3147*/67-74-76	3254*/70-75-77	3286*/71-75-77	3319*/71-75-77
			3242**77-84-85	3267**80-88-88	3291**84-91-92
44	3242	3196F/67-75-78	3321*/71-77-79	3356*/72-77-79	3389*/73-77-79
			3307**77-85-86	3335**80-88-89	3361**84-92-92
42	3315	3233T/67-76-79	3386*/72-79-81	3429*/73-79-81	3484*/74-79-81
			3370**77-85-86	3399**80-89-89	3434**84-92-92
40	3387	3251T/68-77-80	3475*/74-81-83	3514*/74-81-83	3548*/75-81-83
			3441**76-85-87	3482**80-89-90	3511**83-92-93
38	3465	3270T/67-77-80	3529*/74-81-83	3566*/74-81-83	3601*/75-81-83
			3511**76-86-87	3542**80-89-90	3572**83-93-93
36	3533	3291T/67-77-81	3583*/74-82-84	3620*/75-82-84	3657*/76-82-84
			3564**76-86-87	3599**80-90-91	3630**84-93-94
34	3595	3313B/67-77-81	3595B/75-84-86	3674*/76-84-86	3712*/77-84-86
			3611**75-86-88	3648**79-89-91	3683**84-93-94
32	3648	3336B/67-78-82	3648B/74-85-87	3720*/77-85-87	3758*/78-85-87
			3652**74-86-88	3689**78-90-91	3726**83-94-95
30	3649	3362B/67-79-83	3649B/75-85-87	3725*/77-85-87	3763*/78-85-87
			3657**75-86-88	3695**79-90-92	3731**84-94-95
28	3649	3388B/66-79-83	3649B/75-85-87	3730*/77-85-87	3768*/78-85-87
			3663**75-87-89	3701**80-91-92	3737**84-95-96
26	3650	3440B/66-80-84	3650B/76-85-87	3734*/77-85-87	3773*/78-85-87
			3668**76-87-89	3706**80-91-93	3742**85-95-96
24	3651	3458B/66-80-84	3667B/76-85-87	3739*/77-85-87	3778*/78-85-87
			3674**76-88-90	3712**81-92-93	3748**85-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4215 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.19 PERCENT FOR TODA AND 0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26RA	23	534	0	46	1042	0	108	5110	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26RA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3651	3476B/66-80-84	3690B/76-85-87	3744*/77-85-87	3783*/78-85-87
			3680**77-88-90	3717**81-92-94	3754**86-96-97
20	3652	3491B/66-80-84	3710*/77-85-88	3749*/77-85-88	3787F/78-85-88
			3685**77-89-91	3723**82-93-94	3759**86-97-98
18	3653	3501B/66-81-84	3715*/77-85-88	3754*/78-85-88	3787F/78-85-88
			3691**78-89-91	3729**82-93-95	3765**87-98-98
16	3653	3512B/67-81-84	3720*/77-85-88	3759*/78-85-88	3787F/78-85-88
			3697**78-90-92	3734**83-94-95	3770**88-98-99
14	3654	3522B/67-81-84	3725*/77-85-88	3764*/78-85-88	3787F/79-85-88
			3703**79-91-92	3740**84-95-96	3776**88-99-99
12	3655	3532B/68-82-85	3731*/77-85-88	3769*/78-85-88	3787F/79-85-88
			3709**79-91-93	3746**84-95-96	3782**89-99-00
10	3655	3543B/68-82-85	3736*/77-85-88	3775*/78-85-88	3787F/79-85-88
			3715**80-92-93	3752**85-96-97	3787**89-00-00
8	3656	3554B/68-82-85	3741*/77-85-88	3780*/78-85-88	3787F/79-85-88
			3721**81-92-94	3758**85-96-97	3787**90-00-00
6	3657	3565B/69-83-85	3746*/77-85-88	3785*/78-85-88	3787F/79-85-88
			3727**81-93-94	3764**86-97-98	3787**90-00-00
4	3657	3575B/69-83-86	3751*/77-85-88	3787F/78-85-88	3787F/79-85-88
			3733**82-93-95	3770**87-98-98	3787**90-00-00
2	3657	3586B/69-83-86	3756*/77-85-88	3787F/78-85-88	3787F/79-85-88
			3739**82-94-95	3775**87-98-99	3787**90-00-00
0	3658	3597B/70-84-86	3761*/78-85-88	3787F/78-85-88	3787F/79-85-88
			3744**83-95-96	3781**88-99-99	3787**90-00-00
-2	3658	3609B/70-84-86	3765*/78-85-88	3787F/78-85-88	3787F/79-85-88
			3750**84-95-96	3787**89-00-00	3787**90-00-00
-4	3658	3618B/71-84-87	3770*/78-85-88	3787F/79-85-88	3787F/79-85-88
			3756**84-96-97	3787**89-00-00	3787**91-00-00
-6	3658	3628B/71-85-87	3775*/78-85-88	3787F/79-85-88	3787F/79-85-88
			3762**85-97-97	3787**90-00-00	3787**91-00-00
-8	3658	3637B/72-85-87	3779*/78-85-88	3787F/79-85-88	3787F/80-85-88
			3768**86-97-98	3787**90-00-00	3787**91-00-00
-10	3658	3645B/72-85-87	3784*/78-85-88	3787F/79-85-88	3787F/80-85-88
			3773**86-98-99	3787**90-00-00	3787**91-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4215 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.19 PERCENT FOR TODA AND 0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26RA	23	534	0	46	1042	0	108	5110	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27L

LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2671	2777*/58-61-63	2820*/60-61-63	2835*/60-61-63	2849*/60-61-63
		2747**66-71-72	2785**73-78-78	2785**73-78-78	2785**74-78-78
58A	2728	2830*/59-62-64	2882*/61-62-64	2897*/61-62-64	2911*/62-62-64
		2795**66-72-72	2842**74-79-79	2842**75-79-79	2842**75-79-79
56A	2794	2881*/60-64-66	2950*/62-64-66	2964*/63-64-66	2979*/63-64-66
		2850**66-72-73	2907**76-81-81	2907**76-81-81	2907**77-81-81
54A	2861	2932*/62-66-68	3017*/63-66-68	3032*/64-66-68	3047*/65-66-68
		2907**66-73-74	2975**77-83-83	2977**78-83-83	2977**78-83-83
52	2935	2989*/63-68-70	3093*/65-68-70	3109*/66-68-70	3124*/66-68-70
		2970**66-73-74	3043**77-83-84	3057**80-86-86	3057**80-86-86
50	3010	3045*/64-71-73	3168*/66-71-73	3187*/67-71-73	3203*/68-71-73
		3033**66-73-75	3109**77-84-84	3132**80-87-87	3137**82-88-88
48	3090	3104*/66-73-75	3229*/68-73-75	3270*/69-73-75	3287*/69-73-75
		3099**66-74-76	3178**77-84-85	3201**80-88-88	3218**84-90-90
46	3167	3153*/66-74-77	3288*/69-75-77	3334*/70-75-77	3369*/71-75-77
			3243**77-85-85	3268**80-88-89	3293**84-92-92
44	3242	3197*/67-75-78	3348*/71-77-79	3395*/71-77-79	3457*/72-77-79
			3308**77-85-86	3336**80-88-89	3362**84-92-92
42	3315	3233B/67-76-79	3406*/72-79-81	3498*/72-79-81	3534*/73-79-81
			3371**77-85-86	3400**80-89-90	3437**84-92-93
40	3387	3251B/67-77-80	3505*/73-81-83	3552*/74-81-83	3598*/74-81-83
			3442**76-85-87	3484**80-89-90	3513**83-92-93
38	3465	3270B/66-77-80	3543*/73-81-83	3591*/74-81-83	3479*/74-81-83
			3510**75-85-87	3543**80-89-90	3573**83-93-93
36	3533	3291B/66-77-81	3588*/73-82-84	3636*/74-82-84	3685*/75-82-84
			3561**74-85-87	3597**79-89-90	3631**83-93-94
34	3595	3313B/66-77-81	3595B/74-84-86	3684*/75-84-86	3733*/76-84-86
			3608**74-85-87	3645**78-89-91	3680**82-93-94
32	3648	3336B/66-78-82	3648B/73-85-87	3724*/76-85-87	3775*/77-85-87
				3686**77-89-91	3723**82-93-94
30	3649	3362B/65-79-83	3649B/74-85-87	3731*/76-85-87	3782*/77-85-87
			3654**73-86-88	3692**78-90-91	3728**82-94-95
28	3649	3388B/65-79-83	3649B/74-85-87	3739*/76-85-87	3787F/77-85-87
			3660**74-86-88	3697**78-90-92	3734**83-94-95
26	3650	3430B/65-80-84	3650B/75-85-87	3747*/76-85-87	3787F/77-85-87
			3665**74-87-89	3703**79-91-92	3739**84-95-96
24	3651	3448B/65-80-84	3657B/75-85-87	3754*/76-85-87	3787F/77-85-87
			3671**75-87-89	3709**80-91-93	3745**84-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 800 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 28 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

27L 2 29 0 244 13775 0 260 13852 0

490 15469 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27L LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3651	3465B/65-80-84	3679B/75-85-87	3762*/76-85-87	3787F/77-85-87
			3676**76-88-90	3714**80-92-93	3751**85-96-97
20	3652	3485B/65-80-84	3701B/76-85-88	3770*/77-85-88	3787F/77-85-88
			3682**76-88-90	3720**81-93-94	3757**85-97-97
18	3653	3496B/65-81-84	3724B/76-85-88	3778*/77-85-88	3787F/78-85-88
			3688**77-89-91	3725**81-93-94	3762**86-97-98
16	3653	3506B/66-81-84	3734*/76-85-88	3786*/77-85-88	3787F/78-85-88
			3694**77-90-91	3731**82-94-95	3768**86-98-98
14	3654	3516B/66-81-84	3742*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3700**78-90-92	3737**82-94-95	3773**87-98-99
12	3655	3527B/66-82-84	3750*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3706**78-91-92	3743**83-95-96	3779**88-99-00
10	3655	3537B/67-82-85	3759*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3712**79-91-93	3749**84-95-96	3785**88-00-00
8	3656	3548B/67-82-85	3767*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3718**79-92-93	3755**84-96-97	3787**89-00-00
6	3657	3559B/68-83-85	3775*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3724**80-92-94	3761**85-97-97	3787**89-00-00
4	3657	3570B/68-83-86	3783*/76-85-88	3787F/77-85-88	3787F/78-85-88
			3729**81-93-94	3767**85-97-98	3787**89-00-00
2	3657	3580B/68-83-86	3787F/77-85-88	3787F/77-85-88	3787F/78-85-88
			3735**81-94-95	3772**86-98-99	3787**89-00-00
0	3658	3591B/69-83-86	3787F/77-85-88	3787F/78-85-88	3787F/78-85-88
			3741**82-94-95	3778**87-99-99	3787**89-00-00
-2	3658	3602B/69-84-86	3787F/77-85-88	3787F/78-85-88	3787F/78-85-88
			3747**83-95-96	3784**87-99-00	3787**90-00-00
-4	3658	3613B/70-84-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3753**83-96-96	3787**88-00-00	3787**90-00-00
-6	3658	3625B/70-84-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3759**84-96-97	3787**89-00-00	3787**90-00-00
-8	3658	3636B/71-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3765**84-97-98	3787**89-00-00	3787**90-00-00
-10	3658	3647B/71-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3770**85-98-98	3787**89-00-00	3787**90-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 800 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 28 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27L	2	29	0	244	13775	0	260	13852	0
	490	15469	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27LA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2671	2777*/58-61-63	2820*/60-61-63	2835*/60-61-63	2849*/60-61-63
		2748**66-71-72	2785**73-78-78	2785**73-78-78	2785**74-78-78
58A	2728	2838*/59-62-64	2882*/61-62-64	2896*/61-62-64	2911*/62-62-64
		2796**66-72-73	2842**74-79-79	2842**75-79-79	2842**75-79-79
56A	2794	2904*/60-64-66	2950*/62-64-66	2964*/63-64-66	2979*/63-64-66
		2851**66-72-73	2907**76-81-81	2907**76-81-81	2907**77-81-81
54A	2861	2969F/62-66-68	3017*/63-66-68	3032*/64-66-68	3047*/65-66-68
		2908**66-73-74	2975**77-83-83	2977**78-83-83	2977**78-83-83
52	2935	3016F/63-68-70	3093*/65-68-70	3109*/66-68-70	3124*/66-68-70
		2971**66-73-74	3043**77-83-84	3057**80-86-86	3057**80-86-86
50	3010	3062F/64-71-73	3171*/66-71-73	3187*/67-71-73	3203*/68-71-73
		3034**66-73-75	3109**77-84-84	3133**80-87-87	3137**82-88-88
48	3090	3110F/66-73-75	3254*/68-73-75	3270*/69-73-75	3287*/69-73-75
		3100**66-74-76	3178**77-84-85	3202**80-88-88	3218**84-90-90
46	3167	3155F/66-74-77	3334*/69-75-77	3352*/70-75-77	3369*/71-75-77
			3243**77-85-85	3269**80-88-89	3293**84-92-92
44	3242	3198F/67-76-78	3399F/71-77-79	3435*/71-77-79	3457*/72-77-79
			3308**77-85-86	3337**80-88-89	3363**84-92-92
42	3315	3233B/67-76-79	3477F/72-79-81	3516*/73-79-81	3534*/73-79-81
			3372**77-85-87	3400**80-89-90	3437**84-92-93
40	3387	3251B/67-77-80	3526F/73-81-83	3588*/74-81-83	3606*/74-81-83
			3443**76-86-87	3484**80-89-90	3513**83-92-93
38	3465	3270B/66-77-80	3568F/73-81-83	3640F/74-81-83	3677*/74-81-83
			3511**76-85-87	3543**80-89-90	3573**83-93-93
36	3533	3291B/66-77-81	3605B/73-82-84	3683F/74-82-84	3747*/75-82-84
			3562**74-85-87	3597**79-89-91	3632**83-93-94
34	3595	3313B/66-77-81	3595B/74-84-86	3722F/75-84-86	3787F/76-84-86
			3609**74-85-87	3646**78-89-91	3681**82-93-94
32	3648	3336B/66-78-82	3648B/73-85-87	3740B/76-85-87	3787F/77-85-87
			3650**73-85-88	3687**77-89-91	3723**82-93-94
30	3649	3362B/65-79-83	3649B/74-85-87	3762B/76-85-87	3787F/77-85-87
			3655**73-86-88	3692**78-90-91	3729**82-94-95
28	3649	3388B/65-79-83	3649B/74-85-87	3778F/76-85-87	3787F/77-85-87
			3661**74-86-88	3698**78-90-92	3734**83-94-95
26	3650	3430B/65-80-84	3650B/75-85-87	3787F/76-85-87	3787F/77-85-87
			3666**75-87-89	3704**79-91-92	3740**84-95-96
24	3651	3448B/65-80-84	3657B/75-85-87	3787F/76-85-87	3787F/77-85-87
			3672**75-87-89	3709**80-91-93	3746**84-95-96
22	3651	3466B/65-80-84	3679B/76-85-87	3787F/76-85-87	3787F/77-85-87
			3677**76-88-90	3715**80-92-93	3751**85-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 800 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27LA	243	13748	0	259	13824	0	489	15441	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27LA LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3652	3486B/65-80-84	3702B/76-85-88	3787F/77-85-88	3787F/77-85-88
			3683**76-89-90	3720**81-93-94	3757**85-97-97
18	3653	3496B/65-81-84	3724B/76-85-88	3787F/77-85-88	3787F/78-85-88
			3689**77-89-91	3726**81-93-94	3763**86-97-98
16	3653	3507B/66-81-84	3747B/76-85-88	3787F/77-85-88	3787F/78-85-88
			3695**77-90-91	3732**82-94-95	3768**86-98-98
14	3654	3517B/66-81-84	3770B/76-85-88	3787F/77-85-88	3787F/78-85-88
			3700**78-90-92	3738**82-94-95	3774**87-98-99
12	3655	3528B/66-82-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3707**78-91-92	3744**83-95-96	3780**88-99-00
10	3655	3539B/67-82-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3713**79-91-93	3750**84-96-96	3786**88-00-00
8	3656	3549B/67-82-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3719**80-92-93	3756**84-96-97	3787**89-00-00
6	3657	3560B/68-83-85	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3724**80-93-94	3762**85-97-97	3787**89-00-00
4	3657	3571B/68-83-86	3787F/76-85-88	3787F/77-85-88	3787F/78-85-88
			3730**81-93-94	3767**85-97-98	3787**89-00-00
2	3657	3582B/68-83-86	3787F/77-85-88	3787F/77-85-88	3787F/78-85-88
			3736**81-94-95	3773**86-98-99	3787**89-00-00
0	3658	3593B/69-84-86	3787F/77-85-88	3787F/78-85-88	3787F/78-85-88
			3742**82-94-95	3779**87-99-99	3787**90-00-00
-2	3658	3604B/69-84-86	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3748**83-95-96	3784**87-99-00	3787**90-00-00
-4	3658	3615B/70-84-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3753**83-96-97	3787**88-00-00	3787**90-00-00
-6	3658	3627B/70-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3759**84-96-97	3787**89-00-00	3787**90-00-00
-8	3658	3638B/70-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3765**85-97-98	3787**89-00-00	3787**90-00-00
-10	3658	3650B/71-85-87	3787F/77-85-88	3787F/78-85-88	3787F/79-85-88
			3771**85-98-98	3787**89-00-00	3787**90-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 800 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

27LA 243 13748 0 259 13824 0 489 15441 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27R LFPG

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF CHARLES DE GAULLE
 CHARLES DE GAULLE
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2671	2294F/42-47-52	2470F/50-54-57	2530F/53-56-59	2593F/56-58-61
58A	2728	2329F/43-48-53	2506F/51-55-58	2567F/54-57-60	2630F/57-59-62
56A	2794	2368F/43-49-54	2548F/52-56-60	2610F/55-58-61	2673F/58-60-63
54A	2861	2407F/44-50-56	2589F/53-57-61	2652F/56-59-63	2716F/59-61-64
52	2935	2451F/45-52-57	2635F/54-58-62	2699F/57-60-64	2762F/60-63-66
50	3010	2494F/46-53-58	2682F/55-59-64	2745F/58-62-65	2807F/60-64-67
48	3090	2540F/47-54-60	2728F/56-61-65	2789F/58-63-67	2852F/61-65-69
46	3167	2581F/48-55-61	2767F/56-62-66	2829F/59-64-68	2893F/61-66-70
44	3242	2621F/49-56-63	2806F/57-63-68	2869F/59-65-69	2933F/62-67-71
42	3315	2661F/49-57-64	2845F/57-64-69	2908F/60-66-71	2974F/62-68-72
40	3387	2697F/50-58-65	2882F/57-64-70	2947F/60-67-72	3013F/63-69-73
38	3465	2730F/50-59-66	2918F/58-65-71	2983F/61-68-73	3049F/63-70-75
36	3533	2765F/50-60-67	2954F/58-66-72	3020F/61-68-74	3087F/64-71-76
34	3595	2795F/51-60-68	2986F/59-67-73	3052F/61-69-75	3120F/64-71-77
32	3648	2819F/51-61-69	3013F/59-68-74	3080F/62-70-76	3149F/64-72-77
30	3649	2827F/51-61-69	3022F/59-68-74	3089F/62-70-76	3158F/65-72-78
28	3649	2835F/51-62-69	3030F/59-68-74	3098F/62-70-76	3168F/65-73-78
26	3650	2843F/52-62-69	3039F/60-69-75	3107F/63-71-76	3177F/65-73-78
24	3651	2851F/52-62-70	3048F/60-69-75	3117F/63-71-77	3187F/66-73-78
22	3651	2859F/52-62-70	3057F/60-69-75	3126F/63-71-77	3196F/66-74-79
20	3652	2868F/52-63-70	3066F/61-69-75	3135F/64-72-77	3206F/66-74-79
18	3653	2876F/53-63-70	3075F/61-70-76	3145F/64-72-77	3216F/67-74-79
16	3653	2884F/53-63-71	3085F/61-70-76	3154F/64-72-78	3226F/67-75-79
14	3654	2892F/53-64-71	3094F/62-70-76	3164F/65-73-78	3236F/67-75-80
12	3655	2901F/54-64-71	3103F/62-71-76	3174F/65-73-78	3246F/68-75-80
10	3655	2910F/54-64-71	3113F/62-71-77	3184F/65-73-78	3256F/68-76-80
8	3656	2918F/54-64-71	3123F/63-71-77	3194F/66-74-79	3267F/68-76-80
6	3657	2927F/55-65-72	3132F/63-72-77	3204F/66-74-79	3277F/69-76-81
4	3657	2936F/55-65-72	3142F/63-72-77	3214F/66-74-79	3288F/69-77-81
2	3657	2945F/55-65-72	3152F/64-72-78	3224F/67-75-79	3299F/69-77-81
0	3658	2954F/56-66-72	3162F/64-72-78	3235F/67-75-80	3310F/70-77-81
-2	3658	2963F/56-66-73	3172F/64-73-78	3245F/67-75-80	3322F/70-77-82
-4	3658	2972F/56-66-73	3182F/65-73-78	3255F/68-75-80	3333F/71-78-82
-6	3658	2981F/57-67-73	3192F/65-73-79	3266F/68-76-80	3344F/71-78-82
-8	3658	2990F/57-67-73	3202F/66-74-79	3277F/68-76-81	3356F/71-78-82
-10	3658	3000F/57-67-74	3213F/66-74-79	3288F/69-76-81	3367F/72-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 690 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.16 PERCENT FOR TODA AND -0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27R	252	14629	0	268	14693	0	482	16341	0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 768 FT

RUNWAY 17L

LIMC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2635	2585*/58-58-60	2682*/58-60-62	2712*/58-60-62	2742*/58-60-62
			2683**64-66-67	2710**67-70-71	2734**70-74-74
58A	2692	2631*/59-59-62	2730*/59-61-63	2762*/60-61-63	2793*/60-61-63
			2733**65-67-68	2760**68-71-72	2784**71-75-75
56A	2757	2684*/61-61-63	2784*/60-63-65	2817*/61-63-65	2850*/62-63-65
			2791**66-68-69	2817**69-72-73	2842**72-76-76
54A	2822	2736*/60-62-65	2838*/62-65-67	2872*/62-65-67	2905*/63-65-67
			2849**67-69-70	2876**70-73-74	2903**73-77-77
52	2890	2791*/64-64-66	2893*/63-67-69	2929*/64-67-69	2963*/64-67-69
			2910**68-70-71	2938**71-74-75	2966**74-78-78
50	2964	2849*/65-65-68	2964*/66-69-71	2989*/65-69-71	3025*/66-69-71
			2975**69-71-72	3005**72-75-76	3033**75-79-79
48	3042	2910*/65-67-70	3042*/69-71-73	3052*/67-71-73	3089*/67-71-73
			3043**72-72-74	3074**73-76-77	3103**76-79-80
46	3121	2960*/65-68-72	3106*/73-73-75	3121*/69-74-76	3152*/69-74-76
				3142**74-76-78	3173**77-80-81
44	3195	3006*/65-70-73	3166*/73-75-77	3195*/72-76-78	3212*/70-76-78
				3208**77-77-79	3239**78-81-82
42	3265	3050*/65-71-74	3219*/74-76-79	3265*/75-78-80	3268*/71-78-80
				3269**76-78-80	3302**79-82-83
40	3338	3095*/66-72-75	3268*/74-77-80	3328*/77-79-81	3338*/74-79-81
					3368**80-83-84
38	3407	3135*/66-73-77	3313*/74-78-81	3376*/77-80-82	3407*/76-81-83
					3432**80-83-85
36	3485	3177*/66-74-78	3360*/74-79-82	3433*/77-81-83	3485*/76-81-83
					3503**80-83-85
34	3546	3214B/66-75-79	3402*/75-80-83	3496*/77-81-84	3546*/78-83-85
					3554**80-83-85
32	3607	3244B/65-75-80	3463*/74-80-84	3536*/77-82-85	3600*/80-84-86
30	3625	3258B/66-76-80	3490*/74-81-84	3554*/77-83-85	3618*/80-84-87
28	3626	3266B/66-76-80	3498*/75-81-84	3563*/78-83-85	3626*/80-85-87
26	3626	3274B/66-76-81	3507*/75-81-84	3571*/78-83-86	3626*/80-85-87
					3632**81-85-87
24	3626	3283B/67-77-81	3515*/75-81-84	3580*/78-83-86	3626*/79-85-87
					3637**82-86-88
22	3627	3292B/67-77-81	3524*/76-82-84	3588*/79-84-86	3627*/79-85-87
					3643**82-86-88
20	3627	3301B/68-77-81	3532*/76-82-85	3597*/79-84-86	3627*/78-85-87
					3648**83-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 120 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.60 PERCENT FOR TODA AND -0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17L	14	190	0	57	373	0	82	1040	0
	93	1520	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 17L

LIMC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
18	3628	3310B/68-77-81	3541*/77-82-85	3606*/80-84-86	3628*/78-85-87 3654**83-87-89
16	3628	3318B/68-78-82	3550*/77-82-85	3614*/80-84-87	3628*/77-85-87 3659**84-88-90
14	3628	3328B/69-78-82	3558*/77-83-85	3623*/80-85-87	3628*/77-85-87 3665**84-89-90
12	3629	3337B/69-78-82	3567*/78-83-85	3629*/81-85-87 3631**81-85-87	3629*/76-85-87 3671**85-89-91
10	3629	3346B/70-78-82	3576*/78-83-86	3629*/80-85-87 3637**81-86-88	3634*/76-85-87 3676**85-90-91
8	3630	3355B/70-79-82	3585*/79-83-86	3630*/79-85-87 3642**82-86-88	3641*/76-85-87 3682**86-90-92
6	3630	3364B/70-79-83	3594*/79-84-86	3630*/79-85-87 3648**82-87-89	3647*/76-85-87 3688**86-91-92
4	3631	3374B/71-79-83	3603*/80-84-86	3631*/78-85-87 3654**83-87-89	3653*/76-85-87 3694**87-91-93
2	3631	3383B/71-79-83	3612*/80-84-87	3631*/78-85-87 3660**84-88-90	3659*/76-85-87 3699**87-92-93
0	3631	3392B/72-80-83	3621*/80-84-87	3631*/77-85-87 3665**84-88-90	3665*/77-85-87 3705**88-93-94
-2	3631	3401B/72-80-83	3630*/81-85-87	3631*/77-85-87 3671**85-89-91	3672*/77-85-87 3710**88-93-94
-4	3631	3411B/73-80-84	3631*/80-85-87 3636**81-85-87	3631*/76-85-87 3677**85-90-91	3678*/77-85-87 3716**89-94-95
-6	3631	3426B/73-80-84	3631*/80-85-87 3642**82-86-88	3637*/76-85-87 3683**86-90-92	3684*/77-85-87 3721**90-94-95
-8	3631	3441B/73-80-84	3631*/79-85-87 3647**83-86-88	3643*/76-85-87 3688**86-91-92	3690*/77-85-87 3727**90-95-96
-10	3631	3456B/73-80-84	3631*/79-85-87 3653**83-87-89	3649*/76-85-87 3694**87-91-93	3696*/77-85-87 3733**91-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 120 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.60 PERCENT FOR TODA AND -0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17L	14	190	0	57	373	0	82	1040	0
	93	1520	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 17R

LIMC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2635	2568*/57-57-60	2664*/58-60-62	2693*/58-60-62	2721*/58-60-62
			2671**62-65-66	2699**66-69-69	2726**69-73-73
58A	2692	2615*/59-59-61	2713*/59-61-63	2743*/60-61-63	2772*/60-61-63
			2720**63-65-67	2749**67-69-70	2776**70-74-74
56A	2757	2669*/60-60-63	2768*/60-63-65	2799*/61-63-65	2830*/62-63-65
			2777**64-66-68	2807**68-70-71	2834**71-75-75
54A	2822	2723*/62-62-64	2823*/62-65-67	2855*/62-65-67	2887*/63-65-67
			2835**65-67-69	2866**69-71-72	2894**72-75-76
52	2890	2778*/63-63-66	2890*/65-67-69	2913*/64-67-69	2946*/64-67-69
			2895**66-68-70	2927**70-72-73	2957**73-76-77
50	2964	2838*/65-65-68	2959*/69-69-71	2975*/65-69-71	3009*/66-69-71
				2993**71-73-75	3024**74-77-78
48	3042	2901*/65-67-70	3025*/71-71-73	3042*/67-71-73	3074*/67-71-73
				3062**72-74-76	3093**75-78-79
46	3121	2956*/65-68-71	3089*/73-73-75	3121*/71-74-76	3139*/69-74-76
				3130**75-75-77	3163**76-79-80
44	3195	3004*/65-69-73	3150*/74-74-77	3194*/76-76-78	3200*/70-76-78
					3228**77-80-81
42	3265	3050*/65-71-74	3208*/74-76-78	3253*/77-77-79	3265*/72-78-80
					3291**80-81-82
40	3338	3097*/66-72-76	3260*/74-77-80	3315*/77-79-81	3338*/75-79-81
					3358**79-81-83
38	3407	3139*/66-73-77	3308*/74-78-81	3366*/77-80-82	3407*/78-81-83
					3421**80-82-84
36	3485	3183*/66-74-78	3357*/74-79-82	3420*/77-81-83	3485*/77-81-83
					3497**80-82-84
34	3546	3221B/66-75-79	3400*/75-80-83	3489*/77-81-83	3546*/80-83-85
					3547**80-83-85
32	3607	3253B/65-76-80	3460*/74-80-84	3530*/77-82-85	3591*/80-84-86
30	3625	3268B/65-76-80	3488*/74-80-84	3548*/77-82-85	3609*/80-84-86
28	3626	3275B/66-76-81	3495*/75-81-84	3556*/78-83-85	3617*/81-84-87
26	3626	3283B/66-77-81	3503*/75-81-84	3564*/78-83-85	3625*/81-85-87
24	3626	3291B/67-77-81	3511*/76-81-84	3572*/79-83-86	3626*/81-85-87
					3631**82-85-87
22	3627	3299B/67-77-81	3519*/76-81-84	3580*/79-83-86	3627*/80-85-87
					3636**82-86-88
20	3627	3308B/67-77-81	3526*/76-82-84	3587*/79-84-86	3627*/80-85-87
					3642**83-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 200 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.58 PERCENT FOR TODA AND -0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17R	7	219	0	13	304	0	31	393	0
	62	607	0	72	655	0	77	732	0
	82	768	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 17R

LIMC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
18	3628	3316B/68-77-82	3534*/77-82-85	3595*/80-84-86	3628*/79-85-87 3647**83-87-89
16	3628	3324B/68-78-82	3542*/77-82-85	3603*/80-84-86	3628*/79-85-87 3653**84-87-89
14	3628	3332B/69-78-82	3550*/78-82-85	3611*/81-84-87	3628*/78-85-87 3658**84-88-90
12	3629	3341B/69-78-82	3558*/78-83-85	3620*/81-84-87	3629*/78-85-87 3664**85-88-90
10	3629	3350B/70-78-82	3567*/78-83-85	3628*/82-85-87	3629*/77-85-87 3670**85-89-91
8	3630	3358B/70-79-82	3575*/79-83-86	3630*/81-85-87 3634**82-85-87	3630*/76-85-87 3676**86-90-91
6	3630	3367B/70-79-83	3583*/79-83-86	3630*/81-85-87 3640**83-86-88	3634*/76-85-87 3682**86-90-92
4	3631	3375B/71-79-83	3591*/80-84-86	3631*/80-85-87 3646**83-86-88	3640*/76-85-87 3687**87-91-92
2	3631	3384B/71-79-83	3599*/80-84-86	3631*/80-85-87 3651**84-87-89	3645*/77-85-87 3693**87-91-93
0	3631	3392B/72-80-83	3607*/81-84-86	3631*/79-85-87 3657**84-88-89	3651*/77-85-87 3698**88-92-93
-2	3631	3401B/72-80-83	3615*/81-84-87	3631*/78-85-87 3663**85-88-90	3656*/77-85-87 3704**89-93-94
-4	3631	3409B/73-80-84	3623*/82-85-87	3631*/78-85-87 3669**85-89-90	3662*/77-85-87 3710**89-93-94
-6	3631	3422B/73-80-84	3631*/82-85-87	3631*/77-85-87 3674**86-89-91	3667*/77-85-87 3715**90-94-95
-8	3631	3435B/73-80-84	3631*/82-85-87 3637**83-85-88	3631*/77-85-87 3680**87-90-91	3672*/77-85-87 3721**90-94-95
-10	3631	3448B/74-80-84	3631*/81-85-87 3643**83-86-88	3634*/76-85-87 3686**87-91-92	3678*/77-85-87 3727**91-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 200 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.58 PERCENT FOR TODA AND -0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17R	7	219	0	13	304	0	31	393	0
	62	607	0	72	655	0	77	732	0
	82	768	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 35L

LIMC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2635	2416*/52-52-55	2476*/54-54-57	2497*/55-55-58	2517*/56-56-58
		2477**61-64-66	2561**69-73-73	2588**72-76-76	2611**73-77-77
58A	2692	2472*/54-54-57	2534*/56-56-59	2555*/57-57-59	2575*/57-57-60
		2526**62-65-67	2612**70-73-74	2639**72-76-77	2665**75-79-79
56A	2757	2532*/55-55-59	2595*/58-58-61	2616*/58-58-61	2637*/59-59-62
		2581**63-66-68	2669**71-74-75	2697**73-77-77	2724**76-80-80
54A	2822	2591*/57-57-61	2654*/59-59-63	2675*/60-60-63	2696*/61-61-64
		2636**64-67-69	2726**72-75-76	2755**74-78-79	2783**77-81-81
52	2890	2650*/59-59-63	2714*/61-61-64	2736*/62-62-65	2757*/63-63-66
		2693**65-67-70	2786**73-76-77	2816**75-79-80	2846**78-82-82
50	2964	2715*/61-61-65	2781*/63-63-66	2803*/64-64-67	2824*/65-65-68
		2754**66-68-71	2850**74-77-78	2881**77-80-81	2912**79-83-83
48	3042	2787*/63-63-67	2854*/65-65-69	2876*/66-66-69	2898*/67-67-70
		2818**67-69-72	2918**75-78-79	2951**78-81-82	2982**80-84-84
46	3121	2856*/65-65-69	2925*/67-67-71	2947*/68-68-71	2970*/69-69-72
		2878**67-69-72	2985**76-79-80	3018**79-82-83	3051**81-84-85
44	3195	2920*/67-67-71	2991*/69-69-72	3014*/70-70-73	3037*/71-71-74
		2934**67-69-73	3044**76-79-81	3080**79-82-84	3116**82-85-86
42	3265	2981*/67-68-72	3054*/71-71-74	3078*/72-72-75	3101*/72-72-76
		2987**67-70-74	3100**76-79-81	3137**79-82-84	3174**82-86-87
40	3338	3042*/67-70-74	3119*/73-73-76	3143*/73-73-77	3167*/74-74-77
			3157**76-80-82	3196**79-83-85	3234**82-86-88
38	3407	3084*/67-71-75	3178*/74-74-78	3203*/75-75-78	3228*/76-76-79
			3210**76-80-83	3249**79-83-85	3290**83-86-88
36	3485	3127*/67-72-77	3239*/76-76-79	3264*/77-77-80	3290*/77-77-81
			3264**76-80-83	3305**80-84-86	3347**83-87-89
34	3546	3165*/67-73-78	3294*/77-77-81	3321*/78-78-81	3347*/79-79-82
			3313**76-81-84	3356**80-84-86	3398**83-87-89
32	3607	3201*/67-74-79	3345*/77-78-82	3373*/79-79-83	3400*/80-80-83
			3359**76-81-84	3403**80-84-87	3462**83-87-89
30	3625	3216*/68-74-79	3362*/77-79-83	3390*/80-80-83	3418*/80-80-84
			3377**77-82-85	3425**80-85-87	3486**83-88-90
28	3626	3224*/68-75-79	3363*/78-79-83	3391*/80-80-83	3420*/80-80-84
			3381**77-82-85	3431**80-85-88	3490**83-88-90
26	3626	3231*/68-75-80	3365*/78-79-83	3392*/80-80-83	3421*/80-80-84
			3385**78-83-86	3437**81-86-88	3495**84-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1170 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.58 PERCENT FOR TODA AND 0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35L	9	180	0	17	263	0	22	311	0
	43	342	0	48	609	0	71	942	0
	105	1293	0	166	2122	0	278	4075	0
	353	4357	0	371	5665	0	773	9748	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED AT D4.8 MMP VOR/DME (9.0 CAMERI TACAN), TO A MAG COURSE OF 200 DEGREES (FOR CAMERI
 TACAN FREQUENCY SEE MILANO AREA CHART)

ELEVATION 768 FT

RUNWAY 35L

LIMC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3626	3239*/69-75-80	3366*/79-79-83	3393*/80-80-83	3422*/80-80-84
			3389**78-83-86	3444**81-86-89	3499**84-89-91
22	3627	3246*/69-75-80	3367*/79-79-83	3394*/80-80-83	3423*/80-80-84
			3394**79-84-87	3450**82-87-89	3503**85-90-92
20	3627	3254*/70-76-80	3368*/79-79-83	3395*/80-80-83	3424*/80-80-84
			3398**79-84-87	3456**82-87-90	3508**85-91-92
18	3628	3261*/70-76-80	3369*/79-79-83	3396*/80-80-83	3425*/80-80-84
			3403**80-85-88	3462**83-88-90	3512**86-91-93
16	3628	3269*/70-76-80	3370*/79-79-83	3397*/80-80-83	3426*/80-80-84
			3407**80-85-88	3468**83-88-90	3516**86-92-93
14	3628	3276*/71-76-81	3370*/79-79-83	3397*/80-80-83	3428*/80-80-84
			3412**81-86-89	3474**84-89-91	3521**87-92-94
12	3629	3282*/71-76-81	3371*/79-79-83	3398*/80-80-83	3429*/80-80-84
		3283**71-77-81	3418**81-86-89	3480**84-90-91	3526**87-93-94
10	3629	3284*/72-77-81	3372*/79-79-83	3400*/80-80-83	3430*/80-80-84
		3287**72-77-81	3425**82-87-89	3486**85-90-92	3530**88-93-95
8	3630	3285*/72-77-81	3373*/79-79-83	3401*/80-80-83	3432*/80-80-84
		3292**72-78-82	3432**82-88-90	3491**85-91-92	3535**89-94-95
6	3630	3287*/73-77-81	3374*/79-79-83	3401*/80-80-83	3433*/80-80-84
		3296**73-78-82	3438**83-88-90	3496**86-91-93	3539**89-95-96
4	3631	3289*/73-77-81	3375*/79-79-83	3402*/80-80-83	3434*/80-80-84
		3300**73-79-83	3444**83-89-91	3500**86-92-93	3543**90-95-96
2	3631	3290*/74-77-81	3376*/79-79-83	3403*/80-80-83	3435*/80-80-84
		3304**74-79-83	3451**84-89-91	3505**87-93-94	3547**90-96-97
0	3631	3291*/75-77-81	3376*/79-79-83	3404*/80-80-84	3435*/80-80-84
		3309**74-80-84	3457**84-90-92	3509**87-93-94	3552**91-97-98
-2	3631	3293*/75-77-81	3377*/79-79-83	3404*/80-80-84	3436*/80-80-84
		3313**75-81-84	3463**85-90-92	3513**88-94-95	3556**91-97-98
-4	3631	3294*/76-77-81	3377*/79-79-83	3405*/80-80-84	3437*/80-80-84
		3317**75-81-85	3469**85-91-93	3517**89-94-96	3560**92-98-99
-6	3631	3295*/77-77-81	3378*/79-79-83	3405*/80-80-84	3438*/80-80-84
		3322**76-82-85	3475**86-92-93	3521**89-95-96	3564**93-99-99
-8	3631	3295*/77-77-81	3378*/79-79-83	3406*/80-80-84	3438*/80-80-84
		3326**76-82-86	3481**86-92-94	3525**90-96-97	3569**93-99-00
-10	3631	3295*/77-77-81	3379*/79-79-83	3406*/80-80-84	3439*/80-80-84
		3330**77-83-86	3486**87-93-94	3529**90-96-97	3572**94-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1170 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.58 PERCENT FOR TODA AND 0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35L	9	180	0	17	263	0	22	311	0
	43	342	0	48	609	0	71	942	0
	105	1293	0	166	2122	0	278	4075	0
	353	4357	0	371	5665	0	773	9748	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN, COMMENCED AT D4.8 MMP VOR/DME (9.0 CAMERI TACAN), TO A MAG COURSE OF 200 DEGREES (FOR CAMERI TACAN FREQUENCY SEE MILANO AREA CHART)

ELEVATION 768 FT

RUNWAY 35R

LIMC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2635	2390*/51-51-55	2467*/54-54-57	2492*/55-55-58	2517*/56-56-58
		2415**59-62-64	2501**65-68-69	2530**67-71-71	2559**68-72-72
58A	2692	2441*/52-52-56	2520*/55-55-58	2545*/56-56-59	2571*/57-57-60
		2463**61-64-66	2550**65-68-70	2579**67-71-72	2608**69-73-73
56A	2757	2499*/54-54-58	2579*/57-57-60	2605*/58-58-61	2631*/59-59-62
		2517**62-65-67	2606**66-69-71	2635**68-71-72	2664**70-73-74
54A	2822	2555*/56-56-60	2637*/59-59-62	2663*/60-60-63	2690*/61-61-64
		2571**63-66-68	2662**68-70-72	2692**70-73-74	2722**71-74-75
52	2890	2613*/58-58-62	2696*/61-61-64	2722*/61-61-65	2749*/62-62-65
		2627**65-68-70	2721**70-73-75	2752**71-74-75	2782**73-76-77
50	2964	2675*/59-59-63	2759*/62-62-66	2787*/63-63-67	2814*/64-64-67
		2688**69-69-71	2784**72-75-76	2816**73-76-77	2847**74-77-78
48	3042	2741*/61-61-65	2828*/64-64-68	2856*/65-65-69	2885*/66-66-69
		2753**67-70-73	2850**74-77-78	2883**75-78-79	2915**76-79-80
46	3121	2806*/63-63-67	2896*/66-66-70	2925*/67-67-71	2954*/68-68-71
		2817**68-71-74	2916**75-78-80	2950**77-80-81	2983**78-81-83
44	3195	2866*/65-65-69	2959*/68-68-72	2989*/69-69-72	3019*/70-70-73
		2875**68-71-74	2979**76-79-81	3013**79-82-83	3047**80-83-85
42	3265	2924*/66-66-71	3019*/70-70-73	3050*/71-71-74	3080*/72-72-75
		2930**68-70-74	3038**77-79-82	3072**79-82-84	3108**82-85-86
40	3338	2983*/68-68-73	3081*/71-71-75	3112*/72-72-76	3143*/73-73-77
		2985**68-69-74	3098**78-80-83	3134**80-83-85	3169**82-85-87
38	3407	3035*/68-69-74	3137*/73-73-77	3169*/74-74-78	3201*/75-75-78
			3152**78-80-83	3191**81-84-86	3227**83-86-88
36	3485	3085*/68-71-76	3195*/74-74-78	3229*/75-75-79	3261*/76-76-80
			3208**78-80-83	3248**81-83-86	3287**84-87-89
34	3546	3129*/68-72-77	3247*/76-76-80	3281*/77-77-81	3315*/78-78-81
			3256**78-79-83	3298**81-83-86	3340**84-87-89
32	3607	3171*/68-73-78	3298*/77-77-81	3334*/78-78-82	3369*/79-79-83
			3303**78-79-83	3347**81-83-86	3391**84-86-89
30	3625	3186*/69-73-78	3315*/77-77-82	3351*/78-78-82	3386*/79-79-83
			3320**78-80-83	3365**81-83-86	3409**85-87-89
28	3626	3191*/69-74-78	3318*/78-78-82	3354*/79-79-82	3389*/80-80-83
			3324**79-80-84	3369**82-84-87	3414**85-87-90
26	3626	3195*/69-74-79	3321*/78-78-82	3357*/79-79-82	3392*/80-80-83
			3329**79-81-84	3374**82-84-87	3420**86-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1190 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 160 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.60 PERCENT FOR TODA AND 0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35R	8	177	0	13	261	0	21	309	0
	26	363	0	37	415	0	69	767	0
	82	784	0	100	909	0	251	2543	0
	400	5203	0	488	9395	0	785	14633	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D4.0 MMP VOR INTERCEPT AND TRACK OUTBOUND ON THE R-150 MMP VOR.

ELEVATION 768 FT

RUNWAY 35R

LIMC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3626	3200*/70-74-79	3323*/78-78-82	3359*/79-79-83	3394*/80-80-83
			3333**80-81-85	3378**83-85-88	3427**86-88-91
22	3627	3204*/70-74-79	3326*/78-78-82	3362*/79-79-83	3397*/80-80-83
			3338**80-82-85	3382**83-85-88	3433**86-89-91
20	3627	3209*/71-74-79	3329*/78-78-82	3364*/79-79-83	3399*/80-80-83
			3342**81-82-86	3386**84-86-89	3439**87-90-92
18	3628	3213*/71-74-79	3332*/78-78-82	3367*/79-79-83	3402*/80-80-83
			3347**81-83-86	3391**84-87-89	3446**88-90-92
16	3628	3217*/72-74-79	3334*/78-78-82	3369*/79-79-83	3404*/80-80-84
			3351**82-84-87	3395**85-87-90	3452**88-91-93
14	3628	3221*/72-75-79	3337*/78-78-82	3372*/79-79-83	3407*/80-80-84
			3355**82-84-87	3400**86-88-90	3458**88-91-93
12	3629	3226*/73-75-79	3340*/78-78-82	3375*/79-79-83	3410*/80-80-84
			3360**83-85-88	3404**86-89-91	3464**89-92-94
10	3629	3230*/73-75-79	3342*/78-78-82	3378*/79-79-83	3413*/80-80-84
			3364**83-85-88	3409**87-89-91	3469**90-93-94
8	3630	3234*/74-75-80	3345*/78-78-82	3380*/79-79-83	3416*/80-80-84
			3369**84-86-89	3414**87-90-92	3475**90-93-95
6	3630	3238*/74-75-80	3348*/78-78-82	3383*/79-79-83	3420*/80-80-84
			3373**84-87-89	3421**88-90-92	3481**91-94-95
4	3631	3242*/75-75-80	3350*/78-78-82	3385*/79-79-83	3423*/80-80-84
			3378**85-87-90	3427**88-91-93	3486**91-95-96
2	3631	3245*/75-75-80	3353*/79-79-82	3388*/80-80-83	3426*/80-80-84
		3247**75-77-81	3382**85-88-90	3432**89-92-94	3489**91-94-96
0	3631	3247*/75-75-80	3355*/79-79-82	3390*/80-80-83	3429*/80-80-84
		3251**76-78-82	3387**86-89-91	3438**89-92-94	3494**92-96-97
-2	3631	3249*/75-75-80	3357*/79-79-82	3392*/80-80-83	3432*/80-80-84
		3255**76-78-82	3390**86-89-91	3444**90-93-95	3498**93-97-98
-4	3631	3252*/76-76-80	3359*/79-79-83	3395*/80-80-83	3435*/80-80-84
		3259**77-79-83	3394**87-90-92	3449**90-93-95	3502**93-97-98
-6	3631	3254*/76-76-80	3362*/79-79-83	3397*/80-80-83	3437*/80-80-84
		3264**77-79-83	3398**88-91-93	3455**91-94-96	3506**93-97-98
-8	3631	3256*/76-76-80	3364*/79-79-83	3399*/80-80-83	3440*/80-80-84
		3268**78-80-84	3402**88-91-93	3461**91-95-96	3509**94-98-98
-10	3631	3259*/76-76-80	3366*/79-79-83	3401*/80-80-83	3443*/80-80-84
		3272**79-80-84	3406**89-92-94	3467**92-96-97	3513**94-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1190 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 160 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.60 PERCENT FOR TODA AND 0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35R	8	177	0	13	261	0	21	309	0
	26	363	0	37	415	0	69	767	0
	82	784	0	100	909	0	251	2543	0
	400	5203	0	488	9395	0	785	14633	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D4.0 MMP VOR INTERCEPT AND TRACK OUTBOUND ON THE R-150 MMP VOR.

ELEVATION 72 FT

RUNWAY 16L OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING FHAD INT,L
DAMMAM
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2821F/59-62-64	2996F/61-62-64	3057F/61-62-64	3096F/62-62-64
		2755**65-69-70	2818**74-79-79	2818**74-79-79	2818**75-79-79
58A	2759	2859F/60-63-65	3035F/62-63-65	3097F/62-63-65	3158F/63-63-65
		2804**66-69-70	2872**76-80-80	2876**76-80-80	2876**76-80-80
56A	2827	2901F/61-65-67	3080F/63-65-67	3143F/64-65-67	3206F/64-65-67
		2860**66-70-71	2930**76-80-80	2942**77-82-82	2942**78-82-82
54	2896	2944F/63-67-69	3126F/65-67-69	3189F/65-67-69	3254F/66-67-69
		2918**66-70-72	2991**76-81-81	3013**79-84-84	3015**79-85-85
52	2974	2992F/64-70-72	3177F/66-70-72	3241F/67-70-72	3308F/67-70-72
		2983**66-71-72	3061**76-81-82	3084**80-85-85	3099**81-87-87
50	3051	3038F/66-71-73	3226F/68-72-74	3292F/68-72-74	3361F/69-72-74
			3126**76-81-82	3151**80-85-85	3175**83-89-89
48	3130	3085F/67-72-75	3275F/69-74-76	3344F/70-74-76	3417F/70-74-76
			3192**76-82-83	3219**80-85-86	3243**83-89-89
46	3207	3128F/67-73-76	3324F/71-76-78	3393F/71-76-78	3500F/72-76-78
			3257**76-82-83	3284**80-86-87	3312**83-89-90
44	3283	3171F/67-74-77	3372F/72-78-80	3469F/73-78-80	3548F/73-78-80
			3322**76-82-84	3352**80-86-87	3380**83-90-90
42	3357	3214F/68-75-79	3425F/73-80-82	3524F/74-80-82	3595F/74-80-82
			3384**76-83-85	3416**80-86-88	3459**83-90-90
40	3433	3256F/68-76-80	3499F/74-81-83	3569F/74-81-83	3641F/75-81-83
			3459**76-83-85	3497**79-86-88	3528**83-90-91
38	3506	3287B/68-77-81	3540F/74-82-84	3611F/74-82-84	3684F/75-82-84
			3522**76-83-85	3555**79-87-88	3586**83-90-91
36	3574	3318B/67-78-81	3582F/75-83-85	3654F/75-83-85	3728F/76-83-85
			3578**76-84-86	3611**79-87-89	3644**83-91-92
34	3639	3347B/66-78-82	3611B/75-84-86	3693F/77-85-87	3768F/77-85-87
				3663**79-88-89	3698**83-91-93
32	3667	3366B/66-79-83	3629B/75-85-87	3715F/77-86-88	3787F/78-86-88
				3687**79-88-90	3724**83-92-93
30	3668	3376B/67-79-83	3640B/76-85-87	3726F/77-86-88	3787F/78-86-88
				3693**80-88-90	3730**84-92-94
28	3669	3386B/67-79-83	3651B/76-85-88	3737F/77-86-88	3787F/78-86-88
				3699**80-89-91	3735**84-93-94
26	3670	3396B/67-80-83	3662B/77-86-88	3748F/77-86-88	3787F/78-86-88
				3705**81-89-91	3740**85-93-94
24	3671	3407B/68-80-84	3683B/77-86-88	3759F/77-86-88	3787F/78-86-88
			3672**77-86-88	3711**81-90-92	3746**85-94-95
22	3671	3423B/68-80-84	3695F/77-86-88	3770F/77-86-88	3787F/78-86-88
			3678**77-86-89	3717**82-91-92	3751**86-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 16L OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L

DAMMAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3672	3441B/68-80-84	3706F/77-86-88	3782F/78-86-88	3787F/78-86-88
			3684**78-87-89	3723**83-91-93	3757**86-95-96
18	3673	3460B/68-80-84	3717F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3690**79-88-90	3729**83-92-93	3763**87-95-96
16	3674	3479B/68-80-84	3728F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3695**79-88-90	3734**84-92-94	3768**88-96-97
14	3675	3493B/69-80-84	3739F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3702**80-89-91	3740**84-93-94	3774**88-97-97
12	3676	3504B/69-81-84	3751F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3708**80-89-91	3746**85-93-95	3780**89-97-98
10	3676	3515B/69-81-84	3763F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3714**81-90-92	3752**85-94-95	3786**89-98-98
8	3677	3525B/70-81-84	3774F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3720**81-90-92	3757**86-95-96	3787**89-98-99
6	3678	3536B/70-82-85	3786F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3727**82-91-93	3763**86-95-96	3787**88-98-98
4	3678	3547B/71-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3733**83-92-93	3769**87-96-97	3787**88-98-98
2	3679	3558B/71-82-85	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3739**83-92-94	3775**87-96-97	3787**89-98-98
0	3679	3569B/71-83-86	3787F/78-86-88	3787F/79-86-88	3787F/79-86-88
			3745**84-93-94	3780**88-97-98	3787**89-98-98
-2	3679	3580B/72-83-86	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3750**84-94-95	3786**89-97-98	3787**89-98-98
-4	3679	3591B/72-83-86	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3756**85-94-95	3787**88-98-98	3787**89-98-98
-6	3680	3603B/73-84-86	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3762**86-95-96	3787**88-98-98	3787**89-98-98
-8	3680	3614B/73-84-87	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3768**86-95-96	3787**88-98-98	3787**89-98-98
-10	3680	3626B/74-84-87	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3773**87-96-97	3787**88-98-98	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 16R OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING FHAD INT,L
DAMMAM
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2824F/59-62-64	2999F/61-62-64	3060F/61-62-64	3096F/61-62-64
		2756**66-69-70	2818**74-79-79	2818**74-79-79	2818**75-79-79
58A	2759	2861F/60-63-65	3038F/62-63-65	3100F/62-63-65	3158F/63-63-65
		2805**66-69-71	2873**76-80-80	2876**76-80-80	2876**76-80-80
56A	2827	2903F/61-65-67	3083F/63-65-67	3145F/64-65-67	3209F/64-65-67
		2861**66-70-71	2931**76-80-81	2942**77-82-82	2942**78-82-82
54	2896	2946F/63-67-69	3129F/65-67-69	3192F/65-67-69	3257F/66-67-69
		2919**66-70-72	2992**76-81-81	3014**79-84-84	3015**79-85-85
52	2974	2994F/64-70-72	3179F/66-70-72	3244F/67-70-72	3311F/67-70-72
		2984**66-71-73	3061**76-81-82	3085**80-85-85	3099**81-87-87
50	3051	3040F/66-71-73	3229F/68-72-74	3294F/68-72-74	3364F/69-72-74
			3127**76-82-82	3152**80-85-85	3176**83-89-89
48	3130	3087F/67-72-75	3278F/69-74-76	3347F/70-74-76	3423F/70-74-76
			3193**76-82-83	3220**80-85-86	3244**83-89-89
46	3207	3130F/67-73-76	3326F/70-76-78	3396F/71-76-78	3503F/72-76-78
			3258**76-82-83	3285**80-86-87	3313**83-89-90
44	3283	3174F/67-75-77	3374F/72-78-80	3475F/72-78-80	3551F/73-78-80
			3323**76-83-84	3353**80-86-87	3382**83-90-90
42	3357	3217F/68-76-79	3430F/73-80-82	3527F/74-80-82	3598F/74-80-82
			3385**76-83-85	3418**80-86-88	3461**83-90-91
40	3433	3258F/68-77-80	3501F/74-81-83	3572F/74-81-83	3643F/75-81-83
			3460**76-83-85	3499**79-87-88	3529**83-90-91
38	3506	3288B/67-77-81	3542F/73-82-84	3614F/74-82-84	3686F/75-82-84
			3523**76-83-85	3556**79-87-88	3587**83-91-92
36	3574	3319B/67-78-81	3585F/75-83-85	3657F/75-83-85	3731F/76-83-85
			3578**76-84-86	3612**79-87-89	3645**83-91-92
34	3639	3349B/66-78-82	3612B/75-84-87	3696F/76-85-87	3770F/77-85-87
				3664**79-88-89	3699**83-91-93
32	3667	3367B/66-79-83	3631B/75-85-87	3718F/77-86-88	3787F/78-86-88
				3688**79-88-90	3725**83-92-93
30	3668	3377B/67-79-83	3641B/76-85-87	3729F/77-86-88	3787F/78-86-88
				3694**80-88-90	3731**84-92-94
28	3669	3387B/67-79-83	3652B/76-85-88	3740F/77-86-88	3787F/78-86-88
				3699**80-89-91	3736**84-93-94
26	3670	3398B/67-80-83	3663B/76-86-88	3751F/77-86-88	3787F/78-86-88
				3705**81-89-91	3742**85-93-95
24	3671	3408B/68-80-84	3687F/76-86-88	3762F/77-86-88	3787F/78-86-88
			3673**77-86-88	3711**81-90-92	3747**85-94-95
22	3671	3424B/68-80-84	3698F/76-86-88	3773F/77-86-88	3787F/78-86-88
			3678**77-87-89	3717**82-91-92	3753**86-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.06 PERCENT FOR TODA AND 0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 16R OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L

DAMMAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3672	3443B/68-80-84	3709F/77-86-88	3784F/77-86-88	3787F/78-86-88
			3684**78-87-89	3723**82-91-93	3758**86-95-96
18	3673	3462B/68-80-84	3720F/77-86-88	3787F/78-86-88	3787F/78-86-88
			3690**78-88-90	3729**83-92-93	3764**87-96-97
16	3674	3482B/68-80-84	3731F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3696**79-88-90	3735**84-92-94	3769**87-96-97
14	3675	3494B/68-80-84	3742F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3702**80-89-91	3741**84-93-94	3775**88-97-98
12	3676	3505B/69-81-84	3754F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3708**80-89-91	3747**85-93-95	3781**89-97-98
10	3676	3516B/69-81-84	3765F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3715**81-90-92	3753**85-94-95	3787**89-98-99
8	3677	3527B/70-81-85	3777F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3721**81-90-92	3759**86-95-96	3787**89-98-99
6	3678	3537B/70-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3727**82-91-93	3764**86-95-96	3787**88-98-98
4	3678	3548B/70-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3733**82-92-93	3770**87-96-97	3787**88-98-98
2	3679	3559B/71-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3739**83-92-94	3776**87-96-97	3787**88-98-98
0	3679	3570B/71-83-86	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3745**84-93-94	3781**88-97-98	3787**88-98-98
-2	3679	3581B/72-83-86	3787F/78-86-88	3787F/79-86-88	3787F/79-86-88
			3751**84-94-95	3787**89-98-98	3787**89-98-98
-4	3679	3593B/72-83-86	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3757**85-94-95	3787**88-98-98	3787**89-98-98
-6	3680	3604B/72-84-86	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3763**86-95-96	3787**88-98-98	3787**89-98-98
-8	3680	3615B/73-84-87	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3769**86-96-96	3787**88-98-98	3787**89-98-98
-10	3680	3627B/73-84-87	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3774**87-96-97	3787**88-98-98	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

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RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.06 PERCENT FOR TODA AND 0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 34L OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L

DAMMAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2702	2831F/59-62-64	3006F/60-62-64	3068F/61-62-64	3096F/61-62-64
		2759**66-69-70	2818**74-79-79	2818**74-79-79	2818**75-79-79
58A	2759	2868F/60-63-65	3046F/62-63-65	3108F/62-63-65	3158F/63-63-65
		2808**66-70-71	2875**76-80-80	2876**76-80-80	2876**76-80-80
56A	2827	2910F/61-65-67	3090F/63-65-67	3153F/64-65-67	3217F/64-65-67
		2863**66-70-72	2934**76-81-81	2942**77-82-82	2942**78-82-82
54	2896	2953F/62-67-69	3136F/64-67-69	3200F/65-67-69	3265F/66-67-69
		2921**66-71-72	2995**76-81-81	3015**79-85-85	3015**79-85-85
52	2974	3001F/64-70-72	3187F/66-70-72	3252F/66-70-72	3319F/67-70-72
		2987**66-71-73	3064**76-82-82	3087**80-85-85	3099**81-87-87
50	3051	3047F/66-72-74	3236F/67-72-74	3303F/68-72-74	3373F/69-72-74
			3130**76-82-83	3155**80-85-86	3178**83-89-89
48	3130	3094F/66-73-75	3286F/69-74-76	3355F/69-74-76	3438F/70-74-76
			3196**76-82-83	3222**80-86-86	3246**83-90-90
46	3207	3137F/67-74-76	3334F/70-76-78	3404F/71-76-78	3511F/72-76-78
			3261**76-83-84	3288**80-86-87	3315**83-90-90
44	3283	3181F/67-75-78	3382F/71-78-80	3489F/72-78-80	3559F/73-78-80
			3326**76-83-84	3356**80-86-87	3385**83-90-91
42	3357	3223F/68-76-79	3444F/73-80-82	3535F/73-80-82	3606F/74-80-82
			3389**76-83-85	3423**80-87-88	3465**83-90-91
40	3433	3261B/68-77-80	3509F/73-81-83	3580F/74-81-83	3652F/75-81-83
			3465**76-83-85	3502**79-87-88	3532**83-91-91
38	3506	3291B/67-77-81	3550F/73-82-84	3621F/74-82-84	3695F/75-82-84
			3526**76-84-86	3559**79-87-89	3590**83-91-92
36	3574	3323B/66-78-82	3592F/74-83-85	3664F/75-83-85	3739F/76-83-85
			3580**75-84-86	3616**79-88-89	3648**83-91-93
34	3639	3352B/66-78-82	3615B/75-84-87	3703F/76-85-87	3778F/77-85-87
				3665**79-88-90	3703**83-92-93
32	3667	3370B/66-79-83	3634B/75-85-87	3726F/77-86-88	3787F/77-86-88
				3689**79-88-90	3727**83-92-93
30	3668	3381B/66-79-83	3645B/75-85-87	3737F/77-86-88	3787F/78-86-88
				3695**79-89-90	3733**84-93-94
28	3669	3391B/66-79-83	3656B/75-85-88	3748F/77-86-88	3787F/78-86-88
				3701**80-89-91	3739**84-93-94
26	3670	3401B/67-80-83	3667B/76-86-88	3759F/77-86-88	3787F/78-86-88
				3707**80-90-91	3744**85-94-95
24	3671	3412B/67-80-84	3684B/76-86-88	3770F/77-86-88	3787F/78-86-88
			3674**76-86-88	3713**81-90-92	3750**85-94-95
22	3671	3431B/67-80-84	3706F/76-86-88	3781F/77-86-88	3787F/78-86-88
			3680**77-87-89	3719**81-91-92	3756**86-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 34L OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L
DAMMAM

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3672	3449B/67-80-84	3717F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3686**77-87-89	3725**82-91-93	3762**86-95-96
18	3673	3468B/67-80-84	3728F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3692**78-88-90	3731**82-92-93	3767**87-96-97
16	3674	3487B/68-80-84	3739F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3697**78-88-90	3736**83-92-94	3773**87-97-97
14	3675	3498B/68-81-84	3750F/77-86-88	3787F/77-86-88	3787F/78-86-88
			3704**79-89-91	3742**84-93-94	3779**88-97-98
12	3676	3508B/68-81-84	3762F/77-86-88	3787F/78-86-88	3787F/78-86-88
			3710**80-89-91	3748**84-94-95	3785**89-98-98
10	3676	3519B/69-81-84	3773F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3716**80-90-92	3755**85-94-95	3787**89-98-99
8	3677	3530B/69-82-85	3785F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3722**81-91-92	3761**85-95-96	3787**88-98-99
6	3678	3541B/69-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3728**81-91-93	3767**86-95-96	3787**88-98-98
4	3678	3552B/70-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3735**82-92-93	3773**87-96-97	3787**88-98-98
2	3679	3563B/70-83-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3740**83-92-94	3779**87-97-98	3787**88-98-98
0	3679	3574B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3746**83-93-94	3785**88-97-98	3787**88-98-98
-2	3679	3585B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3752**84-94-95	3787**88-98-98	3787**88-98-98
-4	3679	3596B/71-84-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3758**84-94-95	3787**87-98-98	3787**88-98-98
-6	3680	3608B/72-84-86	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3764**85-95-96	3787**87-98-98	3787**88-98-98
-8	3680	3619B/72-84-87	3787F/78-86-88	3787F/79-86-88	3787F/79-86-88
			3770**86-96-97	3787**88-98-98	3787**88-98-98
-10	3680	3631B/73-85-87	3787F/78-86-88	3787F/79-86-88	3787F/79-86-88
			3776**86-96-97	3787**88-98-98	3787**88-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 34R OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L

DAMMAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2702	2833F/59-62-64	3009F/60-62-64	3071F/61-62-64	3096F/61-62-64
		2760**66-70-70	2818**74-79-79	2818**74-79-79	2818**75-79-79
58A	2759	2870F/60-63-65	3048F/62-63-65	3111F/62-63-65	3158F/63-63-65
		2808**66-70-71	2876**76-80-80	2876**75-80-80	2876**76-80-80
56A	2827	2912F/61-65-67	3093F/63-65-67	3156F/63-65-67	3220F/64-65-67
		2864**66-70-72	2934**76-81-81	2942**77-82-82	2942**77-82-82
54	2896	2955F/62-67-69	3139F/64-67-69	3203F/65-67-69	3268F/65-67-69
		2922**66-71-72	2995**76-81-82	3015**79-85-85	3015**79-85-85
52	2974	3003F/64-70-72	3190F/66-70-72	3254F/66-70-72	3322F/67-70-72
		2988**66-71-73	3065**76-82-82	3088**80-85-85	3099**81-87-87
50	3051	3050F/66-72-74	3239F/67-72-74	3306F/68-72-74	3375F/69-72-74
			3131**76-82-83	3156**80-86-86	3179**83-89-89
48	3130	3096F/66-73-75	3288F/69-74-76	3358F/69-74-76	3444F/70-74-76
			3197**76-82-83	3223**80-86-87	3247**83-90-90
46	3207	3140F/67-74-76	3337F/70-76-78	3407F/71-76-78	3514F/71-76-78
			3262**76-83-84	3289**80-86-87	3316**83-90-90
44	3283	3183F/67-75-78	3384F/71-78-80	3492F/72-78-80	3562F/73-78-80
			3327**76-83-84	3357**80-87-88	3386**83-90-91
42	3357	3226F/67-76-79	3449F/72-80-82	3538F/73-80-82	3609F/74-80-82
			3390**76-83-85	3424**80-87-88	3466**83-90-91
40	3433	3262B/67-77-80	3511F/73-81-83	3582F/74-81-83	3654F/75-81-83
			3467**76-84-85	3503**79-87-88	3533**83-91-91
38	3506	3292B/67-77-81	3552F/73-82-84	3624F/74-82-84	3697F/75-82-84
			3528**76-84-86	3560**79-87-89	3592**83-91-92
36	3574	3324B/66-78-82	3595F/74-83-85	3667F/75-83-85	3741F/76-83-85
			3580**75-84-86	3617**79-88-89	3649**83-92-93
34	3639	3353B/66-78-82	3616B/74-84-87	3706F/76-85-87	3781F/77-85-87
				3666**79-88-90	3703**83-92-93
32	3667	3372B/66-79-83	3635B/74-85-87	3728F/76-86-88	3787F/77-86-88
				3690**78-88-90	3728**83-92-93
30	3668	3382B/66-79-83	3646B/75-85-87	3739F/77-86-88	3787F/77-86-88
				3695**79-89-90	3733**83-93-94
28	3669	3392B/66-79-83	3657B/75-85-88	3750F/77-86-88	3787F/78-86-88
				3701**80-89-91	3739**84-93-94
26	3670	3402B/67-80-84	3668B/76-86-88	3761F/77-86-88	3787F/78-86-88
				3707**80-90-91	3745**85-94-95
24	3671	3414B/67-80-84	3683B/76-86-88	3773F/77-86-88	3787F/78-86-88
			3675**76-86-88	3713**81-90-92	3751**85-94-95
22	3671	3433B/67-80-84	3705B/76-86-88	3784F/77-86-88	3787F/78-86-88
			3681**77-87-89	3719**81-91-92	3757**86-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 34R OEDF

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L
DAMMAM

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3672	3451B/67-80-84	3719F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3686**77-87-89	3725**82-91-93	3762**86-96-96
18	3673	3470B/67-80-84	3730F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3692**78-88-90	3731**82-92-93	3768**87-96-97
16	3674	3488B/67-80-84	3741F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3698**78-88-90	3737**83-93-94	3774**87-97-97
14	3675	3499B/68-81-84	3753F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3704**79-89-91	3743**83-93-94	3780**88-97-98
12	3676	3509B/68-81-84	3764F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3710**79-90-91	3749**84-94-95	3786**89-98-98
10	3676	3520B/68-81-84	3776F/77-86-88	3787F/78-86-88	3787F/78-86-88
			3717**80-90-92	3755**85-94-95	3787**88-98-99
8	3677	3531B/69-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3723**81-91-92	3761**85-95-96	3787**88-98-99
6	3678	3542B/69-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3729**81-91-93	3767**86-96-96	3787**88-98-98
4	3678	3553B/70-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3735**82-92-93	3773**86-96-97	3787**88-98-98
2	3679	3564B/70-83-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3741**82-93-94	3779**87-97-98	3787**88-98-98
0	3679	3575B/70-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3747**83-93-94	3786**88-97-98	3787**88-98-98
-2	3679	3586B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3753**84-94-95	3787**88-98-98	3787**88-98-98
-4	3679	3598B/71-84-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3758**84-94-95	3787**87-98-98	3787**88-98-98
-6	3680	3609B/72-84-87	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3764**85-95-96	3787**87-98-98	3787**88-98-98
-8	3680	3620B/72-84-87	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3771**86-96-97	3787**87-98-98	3787**88-98-98
-10	3680	3632B/73-85-87	3787F/78-86-88	3787F/79-86-88	3787F/79-86-88
			3777**86-96-97	3787**87-98-98	3787**88-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
 RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
 34R NONE
 ENG-OUT PROCEDURE:
 NONE

ELEVATION 48 FT

RUNWAY 16C OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2704	2690*/61-61-63	2757*/61-62-64	2781*/61-62-64	2803*/62-62-64
		2704**65-67-69	2798**73-76-76	2821**74-79-79	2821**75-79-79
58A	2762	2743*/63-63-65	2811*/62-63-65	2835*/62-63-65	2859*/63-63-65
		2753**65-67-69	2850**73-76-77	2878**77-80-80	2878**76-80-80
56A	2829	2804*/65-65-67	2872*/63-65-67	2897*/64-65-67	2921*/64-65-67
		2810**65-67-69	2910**74-77-77	2939**78-81-81	2945**78-82-82
54	2899	2867*/65-66-69	2936*/65-67-69	2962*/65-67-69	2987*/66-67-69
			2972**74-77-78	3001**78-82-82	3018**79-85-85
52	2977	2930*/65-68-70	3007*/66-70-72	3034*/67-70-72	3060*/67-70-72
			3039**75-78-79	3070**78-82-83	3098**81-86-86
50	3054	2990*/65-70-72	3076*/68-72-74	3104*/68-72-74	3131*/69-72-74
			3104**75-78-79	3137**78-83-83	3166**81-87-87
48	3133	3050*/65-71-74	3146*/69-74-76	3175*/70-74-76	3203*/70-74-76
			3170**75-79-80	3203**78-83-84	3234**81-87-88
46	3210	3106*/65-73-75	3214*/70-76-78	3244*/71-76-78	3273*/72-76-78
			3233**75-79-81	3268**78-83-84	3302**81-88-88
44	3286	3158F/66-74-77	3286*/73-78-80	3313*/73-78-80	3344*/73-78-80
			3296**75-79-81	3334**78-84-85	3370**81-88-89
42	3360	3201F/66-75-78	3357*/75-80-82	3378*/74-80-82	3411*/74-80-82
				3397**78-84-86	3444**81-88-89
40	3437	3242F/66-76-79	3417*/75-81-83	3457*/74-81-83	3498*/75-81-83
				3477**78-84-86	3517**81-88-89
38	3509	3280F/67-77-80	3492*/74-81-83	3520*/74-82-84	3553*/75-82-84
				3535**78-84-86	3575**81-89-90
36	3577	3322B/67-78-82	3545*/75-82-85	3580*/75-83-86	3614*/76-83-86
				3591**78-85-87	3632**81-89-91
34	3642	3351B/66-78-82	3594*/75-84-86	3642*/78-85-87	3671*/77-85-87
				3644**78-85-87	3686**81-90-91
32	3669	3369B/66-79-83	3618*/75-84-87	3668*/78-86-88	3696*/78-86-88
					3711**82-90-92
30	3670	3379B/67-79-83	3624*/75-84-87	3670*/78-86-88	3700*/78-86-88
				3674**79-86-88	3716**82-91-92
28	3670	3389B/67-79-83	3630*/76-85-87	3670*/77-86-88	3704*/78-86-88
				3679**79-87-89	3722**83-91-93
26	3671	3400B/67-80-83	3636*/76-85-87	3673*/77-86-88	3708*/78-86-88
				3685**80-87-89	3728**83-92-93
24	3672	3410B/68-80-84	3643*/77-85-87	3677*/77-86-88	3712*/78-86-88
				3690**80-88-90	3733**84-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1340 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16C	15	301	0	113	1997	0	123	2968	0
	169	4040	0	547	22766	0	823	25238	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16C OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

22	3673	3428B/68-80-84	3649*/77-85-87	3681*/77-86-88	3717*/78-86-88
				3696**81-88-90	3738**84-93-94
20	3674	3447B/68-80-84	3655*/78-85-88	3685*/77-86-88	3721*/78-86-88
				3701**81-89-91	3744**85-93-95
18	3674	3465B/68-80-84	3661*/78-85-88	3689*/78-86-88	3725*/78-86-88
				3707**82-89-91	3749**85-94-95
16	3675	3485B/68-80-84	3667*/78-86-88	3693*/78-86-88	3729*/79-86-88
				3713**82-90-92	3755**86-94-95
14	3676	3496B/68-81-84	3674*/79-86-88	3698*/78-86-88	3733*/79-86-88
				3719**83-90-92	3761**86-95-96
12	3677	3507B/69-81-84	3677*/79-86-88	3702*/78-86-88	3737*/79-86-88
			3680**79-86-88	3725**83-91-92	3767**87-96-96
10	3678	3518B/69-81-84	3678*/78-86-88	3706*/78-86-88	3741*/79-86-88
			3686**80-87-89	3731**84-91-93	3773**87-96-97
8	3679	3529B/70-81-85	3679*/78-86-88	3710*/78-86-88	3745*/79-86-88
			3692**80-87-89	3737**84-92-93	3779**88-97-98
6	3679	3539B/70-82-85	3679*/77-86-88	3714*/78-86-88	3749*/79-86-88
			3698**81-88-90	3742**85-93-94	3785**88-97-98
4	3680	3549B/70-82-85	3683*/77-86-88	3718*/78-86-88	3753*/79-86-88
			3703**82-88-90	3748**85-93-94	3787**88-98-98
2	3680	3556B/71-82-85	3686*/77-86-88	3722*/78-86-88	3756*/79-86-88
			3709**82-89-91	3753**86-94-95	3787**88-98-98
0	3681	3562B/71-82-85	3690*/78-86-88	3725*/78-86-88	3760*/79-86-88
			3715**83-90-91	3759**86-94-95	3787**88-98-98
-2	3681	3569B/72-83-86	3694*/78-86-88	3729*/79-86-88	3763*/79-86-88
			3720**83-90-92	3765**87-95-96	3787**88-97-98
-4	3681	3575B/73-83-86	3697*/78-86-88	3732*/79-86-88	3767*/80-86-88
			3726**84-91-92	3770**87-96-97	3787**88-97-98
-6	3681	3582B/73-83-86	3701*/78-86-88	3736*/79-86-88	3770*/80-86-88
			3732**84-91-93	3776**88-96-97	3787**89-97-98
-8	3681	3588B/74-83-86	3704*/78-86-88	3739*/79-86-88	3774*/80-86-88
			3738**85-92-93	3782**89-97-98	3787**89-97-98
-10	3681	3594B/74-83-86	3708*/78-86-88	3743*/79-86-88	3777*/80-86-88
			3743**85-93-94	3787**89-97-98	3787**89-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1340 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16C	15	301	0	113	1997	0	123	2968	0
	169	4040	0	547	22766	0	823	25238	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16L OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2704	2674*/61-61-63	2746*/61-62-64	2770*/61-62-64	2793*/62-62-64
		2684**64-67-68	2779**71-74-74	2811**74-77-77	2821**75-79-79
58A	2762	2727*/62-62-64	2799*/62-63-65	2824*/63-63-65	2848*/63-63-65
		2735**65-67-69	2831**72-74-75	2862**75-78-78	2878**76-80-80
56A	2829	2787*/64-64-66	2860*/63-65-67	2885*/64-65-67	2910*/64-65-67
		2793**65-67-69	2891**73-76-76	2923**76-79-79	2945**78-82-82
54	2899	2850*/66-66-68	2923*/65-67-69	2949*/65-67-69	2975*/66-67-69
		2852**66-67-69	2955**75-77-78	2987**77-80-80	3018**81-85-85
52	2977	2915*/66-68-70	2993*/66-70-72	3021*/67-70-72	3047*/67-70-72
			3024**75-77-78	3060**78-81-81	3089**81-85-85
50	3054	2974*/66-69-72	3062*/68-72-74	3090*/68-72-74	3118*/69-72-74
			3092**75-77-78	3126**78-81-82	3156**81-85-86
48	3133	3033*/66-71-73	3133*/70-74-76	3160*/70-74-76	3189*/71-74-76
			3157**75-77-79	3192**78-81-82	3224**82-86-86
46	3210	3088*/66-72-75	3210*/73-76-78	3228*/71-76-78	3258*/72-76-78
			3220**75-77-79	3256**78-82-83	3290**82-86-87
44	3286	3142*/66-74-77	3281*/75-78-80	3296*/73-78-80	3328*/73-78-80
				3321**78-82-84	3357**82-86-87
42	3360	3195*/66-75-78	3340*/75-79-82	3361*/74-80-82	3394*/75-80-82
				3383**78-82-84	3425**82-87-88
40	3437	3237F/66-76-79	3397*/75-81-83	3437*/75-81-83	3480*/75-81-83
				3457**78-83-84	3504**81-87-88
38	3509	3275F/67-77-80	3468*/75-81-83	3509*/76-82-84	3536*/75-82-84
				3520**78-83-85	3561**81-87-89
36	3577	3317F/67-78-81	3526*/75-82-84	3576*/78-83-86	3596*/76-83-86
					3618**82-88-89
34	3642	3349B/67-78-82	3575*/75-83-86	3626*/78-85-87	3652*/78-85-87
					3671**82-88-90
32	3669	3366B/67-79-83	3597*/75-84-86	3649*/79-85-87	3677*/78-86-88
					3695**82-89-90
30	3670	3376B/67-79-83	3604*/76-84-86	3656*/79-85-88	3681*/78-86-88
					3701**82-89-91
28	3670	3387B/67-79-83	3610*/76-84-87	3662*/79-86-88	3686*/78-86-88
					3706**83-90-91
26	3671	3397B/68-80-83	3617*/77-84-87	3669*/80-86-88	3690*/78-86-88
					3712**83-90-92
24	3672	3408B/68-80-84	3623*/77-84-87	3672*/80-86-88	3694*/78-86-88
				3675**80-86-88	3718**84-91-92
22	3673	3424B/68-80-84	3630*/78-85-87	3673*/79-86-88	3698*/79-86-88
				3680**81-87-89	3724**84-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 570 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.14 PERCENT FOR TODA AND 0.14 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16L	23	397	0	102	1686	0	335	7365	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16L OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3674	3442B/68-80-84	3636*/78-85-87	3674*/79-86-88	3702*/79-86-88
				3686**81-87-89	3729**85-92-93
18	3674	3461B/68-80-84	3643*/78-85-87	3674*/78-86-88	3706*/79-86-88
				3692**82-88-90	3735**85-92-94
16	3675	3481B/69-80-84	3649*/79-85-87	3675*/78-86-88	3711*/79-86-88
				3697**82-88-90	3740**86-93-94
14	3676	3494B/69-80-84	3656*/79-85-88	3679*/78-86-88	3715*/79-86-88
				3703**83-89-91	3746**86-93-95
12	3677	3501B/69-81-84	3662*/80-85-88	3683*/78-86-88	3719*/79-86-88
				3709**83-89-91	3752**87-94-95
10	3678	3509B/70-81-84	3669*/80-86-88	3688*/78-86-88	3723*/79-86-88
				3715**84-90-92	3758**88-94-96
8	3679	3516B/70-81-84	3675*/81-86-88	3692*/78-86-88	3728*/79-86-88
				3721**84-90-92	3764**88-95-96
6	3679	3523B/71-81-84	3679*/81-86-88	3696*/78-86-88	3732*/79-86-88
			3682**81-86-88	3727**85-91-93	3770**89-96-97
4	3680	3529B/71-81-85	3680*/80-86-88	3700*/79-86-88	3736*/79-86-88
			3687**82-87-89	3733**85-92-93	3775**89-96-97
2	3680	3536B/72-82-85	3680*/80-86-88	3704*/79-86-88	3739*/79-86-88
			3693**82-87-89	3739**86-92-94	3781**90-97-98
0	3681	3543B/72-82-85	3681*/79-86-88	3708*/79-86-88	3743*/80-86-88
			3699**83-88-90	3744**87-93-94	3787**90-97-98
-2	3681	3550B/73-82-85	3681*/79-86-88	3711*/79-86-88	3747*/80-86-88
			3704**83-88-90	3750**87-93-95	3787**90-97-98
-4	3681	3557B/73-82-85	3681*/78-86-88	3715*/79-86-88	3750*/80-86-88
			3710**84-89-91	3755**88-94-95	3787**89-97-98
-6	3681	3563*/74-83-85	3683*/78-86-88	3719*/79-86-88	3754*/80-86-88
			3716**85-90-91	3761**88-95-96	3787**89-97-98
-8	3681	3570*/74-83-86	3686*/78-86-88	3722*/79-86-88	3757*/80-86-88
			3722**85-90-92	3767**89-95-96	3787**89-97-98
-10	3681	3576*/75-83-86	3690*/78-86-88	3726*/79-86-88	3761*/80-86-88
			3728**86-91-92	3772**89-96-97	3787**89-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 570 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.14 PERCENT FOR TODA AND 0.14 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16L 23 397 0 102 1686 0 335 7365 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16R OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2704	2629*/59-59-62	2710*/61-62-64	2735*/61-62-64	2759*/61-62-64
		2636**62-64-66	2732**68-71-72	2764**71-74-74	2796**73-76-76
58A	2762	2681*/61-61-63	2762*/62-63-65	2788*/62-63-65	2813*/63-63-65
		2687**63-65-67	2784**69-72-73	2815**71-74-75	2847**73-76-77
56A	2829	2740*/62-62-65	2829*/65-65-67	2849*/64-65-67	2875*/64-65-67
		2744**63-65-67	2843**71-74-75	2875**72-75-76	2907**74-77-78
54	2899	2801*/63-64-67	2893*/67-67-69	2912*/65-67-69	2938*/66-67-69
			2904**72-74-75	2938**74-77-78	2971**76-78-79
52	2977	2863*/63-66-69	2964*/69-69-71	2982*/67-70-72	3010*/67-70-72
			2974**72-75-76	3009**75-78-79	3044**78-80-81
50	3054	2921*/63-67-70	3033*/71-71-73	3054*/69-72-74	3079*/69-72-74
			3040**73-74-76	3077**76-78-79	3113**79-81-82
48	3133	2978*/64-69-72	3104*/73-73-75	3133*/73-74-76	3149*/70-74-76
			3106**73-74-76	3144**76-77-79	3182**79-81-82
46	3210	3033*/64-70-74	3167*/73-75-77	3206*/76-76-78	3217*/72-76-78
				3208**76-77-79	3248**79-81-82
44	3286	3086*/64-72-75	3225*/73-76-79	3269*/76-78-80	3286*/74-78-80
					3312**79-81-83
42	3360	3131F/64-73-76	3281*/73-78-80	3329*/76-79-81	3360*/76-80-82
					3374**79-81-83
40	3437	3171F/64-74-78	3337*/73-79-82	3387*/76-80-83	3437*/78-81-83
					3444**79-82-84
38	3509	3209F/65-75-79	3389*/73-80-83	3454*/76-81-83	3509*/78-82-84
					3511**79-82-84
36	3577	3248F/65-76-80	3458*/73-81-83	3517*/76-82-84	3566*/79-83-85
34	3642	3283F/65-76-81	3514*/73-81-84	3566*/76-83-85	3617*/79-84-87
32	3669	3303F/65-77-81	3536*/73-82-85	3589*/76-83-86	3640*/79-85-87
30	3670	3313F/66-77-82	3543*/73-82-85	3595*/77-84-86	3646*/80-85-87
28	3670	3323F/66-77-82	3549*/74-82-85	3601*/77-84-86	3653*/80-85-88
26	3671	3332F/66-78-82	3556*/74-82-85	3608*/77-84-86	3659*/81-85-88
24	3672	3342F/66-78-82	3562*/75-83-85	3614*/78-84-87	3665*/81-86-88
22	3673	3352F/67-78-82	3569*/75-83-86	3620*/78-84-87	3671*/82-86-88
20	3674	3362F/67-79-83	3575*/76-83-86	3627*/79-84-87	3674*/82-86-88
					3677**82-86-88
18	3674	3372F/67-79-83	3581*/76-83-86	3633*/79-85-87	3674*/81-86-88
					3683**83-87-89
16	3675	3383F/68-79-83	3588*/76-83-86	3639*/80-85-87	3675*/81-86-88
					3689**83-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	18	300	0	124	1886	0	223	5172	0
	434	13471	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16R OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

14	3676	3393F/68-79-83	3594*/77-83-86	3646*/80-85-87	3676*/80-86-88
					3694**84-88-90
12	3677	3404F/68-80-84	3601*/77-84-86	3652*/81-85-88	3677*/80-86-88
					3701**84-88-90
10	3678	3417F/69-80-84	3607*/78-84-86	3658*/81-85-88	3678*/79-86-88
					3707**85-89-91
8	3679	3436F/69-80-84	3614*/78-84-87	3665*/82-86-88	3680*/79-86-88
					3713**85-90-91
6	3679	3450*/69-80-84	3620*/79-84-87	3671*/82-86-88	3684*/79-86-88
					3719**86-90-92
4	3680	3460*/69-80-84	3626*/79-84-87	3677*/83-86-88	3688*/79-86-88
					3725**86-91-92
2	3680	3469*/70-80-84	3632*/80-85-87	3680*/83-86-88	3692*/79-86-88
				3683**83-86-88	3731**87-91-93
0	3681	3478*/70-80-84	3638*/80-85-87	3681*/82-86-88	3695*/79-86-88
				3688**84-87-89	3737**87-92-93
-2	3681	3487*/71-80-84	3644*/81-85-87	3681*/82-86-88	3699*/79-86-88
				3694**84-87-89	3742**88-92-94
-4	3681	3494*/71-80-84	3650*/81-85-88	3681*/81-86-88	3703*/79-86-88
				3700**85-88-90	3748**89-93-94
-6	3681	3500*/72-81-84	3656*/82-85-88	3681*/81-86-88	3706*/79-86-88
				3706**86-89-90	3753**89-94-95
-8	3681	3506*/72-81-84	3662*/83-85-88	3681*/80-86-88	3710*/80-86-88
				3712**86-89-91	3759**90-94-95
-10	3681	3512*/72-81-84	3667*/83-86-88	3681*/80-86-88	3714*/80-86-88
				3718**87-90-92	3765**90-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	18	300	0	124	1886	0	223	5172	0
	434	13471	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34C OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2704	2814F/59-62-64	2990F/60-62-64	3051F/61-62-64	3099F/61-62-64
		2753**64-68-69	2821**74-79-79	2821**74-79-79	2821**75-79-79
58A	2762	2851F/60-63-65	3029F/62-63-65	3090F/62-63-65	3154F/63-63-65
		2802**64-69-70	2871**74-79-79	2878**76-80-80	2878**76-80-80
56A	2829	2893F/61-65-67	3073F/63-65-67	3136F/64-65-67	3200F/64-65-67
		2857**64-69-71	2928**74-80-80	2945**77-82-82	2945**78-82-82
54	2899	2936F/63-67-69	3119F/64-67-69	3182F/65-67-69	3247F/66-67-69
		2916**64-70-71	2990**74-80-80	3012**78-84-84	3018**79-85-85
52	2977	2984F/64-70-72	3170F/66-70-72	3234F/67-70-72	3300F/67-70-72
		2980**64-70-72	3059**74-80-81	3082**78-84-84	3102**81-87-87
50	3054	3031F/64-71-73	3219F/67-72-74	3284F/68-72-74	3353F/69-72-74
			3124**74-81-82	3150**78-84-85	3174**81-88-88
48	3133	3077F/65-72-75	3268F/69-74-76	3336F/70-74-76	3406F/70-74-76
			3191**74-81-82	3217**78-85-85	3241**81-88-89
46	3210	3121F/65-73-76	3315F/70-76-78	3386F/71-76-78	3492F/72-76-78
			3255**74-82-83	3283**78-85-86	3310**81-89-89
44	3286	3164F/65-74-77	3363F/72-78-80	3455F/72-78-80	3540F/73-78-80
			3320**74-82-83	3350**78-85-87	3378**81-89-90
42	3360	3207F/66-75-78	3410F/73-80-82	3517F/73-80-82	3588F/74-80-82
			3383**74-82-84	3413**78-86-87	3456**81-89-90
40	3437	3248F/66-76-80	3491F/73-81-83	3561F/74-81-83	3633F/75-81-83
			3456**74-82-84	3496**77-86-87	3526**81-90-90
38	3509	3287F/66-77-81	3532F/73-82-84	3603F/74-82-84	3676F/75-82-84
			3520**74-83-85	3552**77-86-88	3584**81-90-91
36	3577	3325B/66-78-82	3575F/74-83-85	3646F/75-83-86	3720F/76-83-86
				3609**77-87-89	3642**81-90-92
34	3642	3354B/66-78-82	3613F/74-84-87	3685F/76-85-87	3760F/77-85-87
				3662**77-87-89	3696**81-91-92
32	3669	3372B/66-79-83	3634F/74-85-87	3707F/77-86-88	3782F/77-86-88
				3686**78-88-90	3721**81-91-93
30	3670	3382B/66-79-83	3644F/75-85-87	3718F/77-86-88	3787F/78-86-88
				3692**78-88-90	3726**82-92-93
28	3670	3393B/66-79-83	3655F/75-85-88	3728F/77-86-88	3787F/78-86-88
				3697**79-89-90	3732**82-92-94
26	3671	3403B/67-80-84	3665F/75-86-88	3739F/77-86-88	3787F/78-86-88
				3703**79-89-91	3737**83-93-94
24	3672	3415B/67-80-84	3676F/76-86-88	3750F/77-86-88	3787F/78-86-88
			3674**76-86-88	3709**80-90-91	3743**83-93-95
22	3673	3434B/67-80-84	3687F/76-86-88	3762F/77-86-88	3787F/78-86-88
			3679**76-86-89	3714**80-90-92	3748**84-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34C NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34C OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3674	3452B/67-80-84	3698F/76-86-88	3773F/77-86-88	3787F/78-86-88
			3685**77-87-89	3720**81-91-92	3754**84-94-95
18	3674	3471B/67-80-84	3708F/76-86-88	3784F/77-86-88	3787F/78-86-88
			3690**77-88-90	3726**81-91-93	3759**85-95-96
16	3675	3489B/68-80-84	3720F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3696**78-88-90	3731**82-92-93	3765**85-96-96
14	3676	3499B/68-81-84	3731F/77-86-88	3787F/77-86-88	3787F/78-86-88
			3702**78-89-90	3737**82-92-94	3771**86-96-97
12	3677	3510B/68-81-84	3742F/77-86-88	3787F/78-86-88	3787F/78-86-88
			3708**79-89-91	3743**83-93-94	3777**87-97-97
10	3678	3521B/69-81-84	3754F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3714**79-90-91	3748**83-93-95	3782**87-97-98
8	3679	3532B/69-82-85	3765F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3719**80-90-92	3754**84-94-95	3787**88-98-98
6	3679	3543B/69-82-85	3777F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3725**80-91-92	3760**84-95-96	3787**88-98-98
4	3680	3554B/70-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3731**81-91-93	3765**85-95-96	3787**88-98-98
2	3680	3565B/70-83-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3737**81-92-93	3771**85-96-97	3787**88-98-98
0	3681	3576B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3742**82-92-94	3777**86-96-97	3787**88-98-98
-2	3681	3587B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3748**82-93-94	3782**86-97-98	3787**88-97-98
-4	3681	3598B/71-84-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3753**83-94-95	3787**87-97-98	3787**88-97-98
-6	3681	3610B/72-84-87	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3758**84-94-95	3787**87-97-98	3787**88-97-98
-8	3681	3621B/72-84-87	3787F/78-86-88	3787F/79-86-88	3787F/79-86-88
			3764**84-95-96	3787**87-97-98	3787**88-97-98
-10	3681	3633B/73-85-87	3787F/78-86-88	3787F/79-86-88	3787F/80-86-88
			3770**85-95-96	3787**87-97-98	3787**88-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34C NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34L OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2704	2707*/59-62-64	2807*/61-62-64	2840*/61-62-64	2871*/61-62-64
		2714**61-63-65	2791**70-74-74	2814**74-78-78	2821**75-79-79
58A	2762	2761*/61-63-65	2855*/62-63-65	2889*/62-63-65	2922*/63-63-65
			2841**71-74-75	2864**74-78-78	2878**76-80-80
56A	2829	2806*/61-65-67	2911*/63-65-67	2945*/64-65-67	2979*/64-65-67
			2897**71-75-76	2921**74-78-79	2944**78-82-82
54	2899	2852*/62-66-68	2968*/65-67-69	3003*/65-67-69	3038*/66-67-69
			2957**71-75-76	2983**74-79-79	3006**78-83-83
52	2977	2903*/62-67-70	3031*/66-70-72	3068*/67-70-72	3104*/67-70-72
			3024**71-76-77	3051**75-79-80	3076**78-83-83
50	3054	2952*/63-68-71	3092*/68-72-74	3130*/68-72-74	3168*/69-72-74
			3088**71-76-78	3116**75-80-81	3144**78-83-84
48	3133	3000*/63-70-73	3154*/69-74-76	3193*/70-74-76	3232*/70-74-76
			3153**71-76-78	3182**75-80-81	3210**78-84-85
46	3210	3046*/63-71-74	3213*/70-76-78	3253*/71-76-78	3294*/72-76-78
			3216**71-77-79	3246**75-80-82	3275**78-84-85
44	3286	3089F/64-72-75	3271*/72-78-80	3314*/72-78-80	3358*/73-78-80
				3311**75-81-83	3342**78-85-86
42	3360	3131F/64-73-76	3320*/72-79-81	3373*/74-80-82	3425*/74-80-82
				3373**75-81-83	3405**78-85-86
40	3437	3171F/64-74-78	3368*/72-80-82	3441*/74-81-83	3510*/75-81-83
				3442**75-81-84	3488**78-85-86
38	3509	3209F/65-75-79	3413*/72-81-83	3509*/74-82-84	3552*/75-82-84
					3544**78-85-87
36	3577	3248F/65-76-80	3490*/72-81-83	3556*/75-83-85	3606*/76-83-86
					3601**78-86-88
34	3642	3283F/65-76-81	3530*/72-82-85	3597*/75-84-86	3656*/77-85-87
					3654**78-86-88
32	3669	3303F/65-77-81	3551*/73-82-85	3618*/75-84-87	3679*/78-86-88
					3678**79-87-89
30	3670	3313F/66-77-82	3560*/73-82-85	3628*/76-84-87	3686*/78-86-88
					3684**79-87-89
28	3670	3323F/66-77-82	3570*/73-83-86	3637*/76-85-87	3693*/78-86-88
					3689**80-88-90
26	3671	3332F/66-78-82	3579*/74-83-86	3647*/77-85-87	3699*/78-86-88
					3695**80-88-90
24	3672	3342F/66-78-82	3589*/74-83-86	3657*/77-85-88	3706*/78-86-88
					3700**80-89-91
22	3673	3352F/67-78-82	3598*/74-84-86	3666*/77-86-88	3713*/78-86-88
					3706**81-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34L	18	295	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34L OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3674	3362F/67-79-83	3608*/75-84-86	3674*/77-86-88	3720*/78-86-88
				3675**78-86-88	3712**81-90-91
18	3674	3372F/67-79-83	3617*/75-84-87	3679*/77-86-88	3727*/78-86-88
				3681**78-87-89	3717**82-90-92
16	3675	3383F/68-79-83	3627*/76-84-87	3686*/78-86-88	3733*/78-86-88
				3686**79-87-89	3723**82-91-92
14	3676	3393F/68-79-83	3637*/76-85-87	3693*/78-86-88	3740*/79-86-88
				3692**79-88-90	3729**83-91-93
12	3677	3404F/68-80-84	3647*/76-85-87	3700*/78-86-88	3748*/79-86-88
				3698**80-88-90	3735**84-92-93
10	3678	3417F/69-80-84	3657*/77-85-88	3707*/78-86-88	3755*/79-86-88
				3704**80-89-90	3741**84-93-94
8	3679	3436F/69-80-84	3667*/77-86-88	3714*/78-86-88	3762*/79-86-88
				3710**81-89-91	3747**85-93-94
6	3679	3455F/69-80-84	3677*/78-86-88	3721*/78-86-88	3769*/79-86-88
				3716**81-90-91	3752**85-94-95
4	3680	3475F/69-80-84	3680*/77-86-88	3728*/78-86-88	3775*/79-86-88
				3684**78-86-89	3721**82-90-92
2	3680	3490*/69-80-84	3686*/77-86-88	3735*/78-86-88	3782*/79-86-88
				3689**79-87-89	3727**82-91-92
0	3681	3500*/70-81-84	3693*/77-86-88	3741*/78-86-88	3787F/79-86-88
				3695**79-88-89	3733**83-91-93
-2	3681	3509*/70-81-84	3700*/78-86-88	3748*/78-86-88	3787F/79-86-88
				3700**80-88-90	3739**83-92-93
-4	3681	3519*/70-81-84	3707*/78-86-88	3755*/79-86-88	3787F/79-86-88
				3706**80-89-90	3744**84-93-94
-6	3681	3528*/71-81-85	3713*/78-86-88	3762*/79-86-88	3787F/79-86-88
				3712**81-89-91	3750**85-93-94
-8	3681	3538*/71-82-85	3720*/78-86-88	3768*/79-86-88	3787F/80-86-88
				3717**81-90-91	3755**85-94-95
-10	3681	3548*/72-82-85	3727*/78-86-88	3775*/79-86-88	3787F/80-86-88
				3723**82-90-92	3761**86-94-96
					3787**89-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
34L 18 295 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34R OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2704	2773*/59-62-64	2875*/60-62-64	2908*/61-62-64	2939*/61-62-64
		2755**64-69-70	2821**74-79-79	2821**74-79-79	2821**75-79-79
58A	2762	2820*/60-63-65	2924*/62-63-65	2957*/62-63-65	2991*/63-63-65
		2804**64-69-70	2873**74-79-79	2878**75-80-80	2878**76-80-80
56A	2829	2873*/61-65-67	2980*/63-65-67	3014*/63-65-67	3049*/64-65-67
		2859**64-69-71	2930**74-80-80	2945**77-82-82	2945**77-82-82
54	2899	2928*/62-67-69	3037*/64-67-69	3074*/65-67-69	3109*/65-67-69
		2918**64-70-71	2991**74-80-81	3014**78-84-84	3018**79-85-85
52	2977	2988*/64-70-72	3102*/66-70-72	3139*/66-70-72	3176*/67-70-72
		2983**64-70-72	3061**74-81-81	3084**78-84-84	3102**81-87-87
50	3054	3035F/64-71-73	3164*/67-72-74	3202*/68-72-74	3241*/69-72-74
			3126**74-81-82	3152**78-85-85	3176**81-88-88
48	3133	3082F/65-72-75	3226*/69-74-76	3266*/69-74-76	3307*/70-74-76
			3193**74-82-83	3219**78-85-86	3243**81-89-89
46	3210	3125F/65-73-76	3286*/70-76-78	3330*/71-76-78	3373*/71-76-78
			3257**74-82-83	3285**78-85-86	3312**81-89-89
44	3286	3169F/65-74-77	3348*/71-78-80	3393*/72-78-80	3467*/73-78-80
			3322**74-82-84	3352**78-86-87	3381**81-89-90
42	3360	3211F/66-75-78	3406*/72-80-82	3493*/73-80-82	3536*/74-80-82
			3385**74-83-84	3417**78-86-87	3459**81-89-90
40	3437	3253F/66-76-80	3496F/73-81-83	3543*/74-81-83	3587*/75-81-83
			3459**74-83-85	3498**77-86-87	3528**81-90-91
38	3509	3292F/66-77-81	3537F/73-82-84	3585*/74-82-84	3630*/75-82-84
			3522**74-83-85	3555**77-87-88	3586**81-90-91
36	3577	3327B/66-78-82	3580F/74-83-86	3638*/75-83-86	3685*/76-83-86
			3578**74-84-86	3611**77-87-89	3644**81-91-92
34	3642	3357B/65-79-82	3618F/74-84-87	3688*/76-85-87	3736*/77-85-87
				3665**77-87-89	3699**81-91-92
32	3669	3375B/65-79-83	3638B/74-85-87	3711*/76-86-88	3760*/77-86-88
				3689**78-88-90	3723**81-91-93
30	3670	3385B/66-79-83	3649B/75-85-87	3718*/76-86-88	3767*/77-86-88
				3694**78-88-90	3729**82-92-93
28	3670	3395B/66-80-83	3660B/75-85-88	3725*/77-86-88	3774*/77-86-88
				3700**79-89-91	3734**82-92-94
26	3671	3405B/66-80-84	3671F/75-86-88	3733*/77-86-88	3781*/78-86-88
				3705**79-89-91	3740**83-93-94
24	3672	3419B/67-80-84	3681F/76-86-88	3740*/77-86-88	3787F/78-86-88
			3677**76-86-88	3711**80-90-92	3745**83-94-95
22	3673	3438B/67-80-84	3692F/76-86-88	3747*/77-86-88	3787F/78-86-88
			3682**76-87-89	3717**80-90-92	3750**84-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 460 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.14 PERCENT FOR TODA AND -0.14 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34R	13	307	0	276	18484	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34R OEJN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3674	3456B/67-80-84	3703F/76-86-88	3754*/77-86-88	3787F/78-86-88
			3687**77-87-89	3722**81-91-92	3756**84-95-96
18	3674	3476B/67-80-84	3712*/76-86-88	3761*/77-86-88	3787F/78-86-88
			3693**77-88-90	3728**81-91-93	3762**85-95-96
16	3675	3491B/67-80-84	3720*/76-86-88	3769*/77-86-88	3787F/78-86-88
			3699**78-88-90	3734**82-92-93	3767**85-96-97
14	3676	3502B/68-81-84	3727*/76-86-88	3776*/77-86-88	3787F/78-86-88
			3704**78-89-91	3739**82-93-94	3773**86-96-97
12	3677	3512B/68-81-84	3734*/76-86-88	3784*/77-86-88	3787F/78-86-88
			3710**79-89-91	3745**83-93-94	3779**87-97-98
10	3678	3523B/68-81-84	3742*/77-86-88	3787F/77-86-88	3787F/78-86-88
			3716**79-90-92	3751**83-94-95	3785**87-97-98
8	3679	3534B/69-82-85	3749*/77-86-88	3787F/78-86-88	3787F/78-86-88
			3722**80-91-92	3757**84-94-95	3787**88-98-98
6	3679	3545B/69-82-85	3757*/77-86-88	3787F/78-86-88	3787F/79-86-88
			3728**80-91-93	3762**84-95-96	3787**88-98-98
4	3680	3556B/69-82-85	3764*/77-86-88	3787F/78-86-88	3787F/79-86-88
			3734**81-92-93	3768**85-95-96	3787**88-98-98
2	3680	3567B/70-83-86	3771*/77-86-88	3787F/78-86-88	3787F/79-86-88
			3739**81-92-94	3774**85-96-97	3787**88-98-98
0	3681	3578B/70-83-86	3778*/77-86-88	3787F/78-86-88	3787F/79-86-88
			3745**82-93-94	3779**86-97-97	3787**88-98-98
-2	3681	3590B/71-83-86	3786*/77-86-88	3787F/78-86-88	3787F/79-86-88
			3750**82-93-95	3785**86-97-98	3787**88-97-98
-4	3681	3601B/71-84-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3755**83-94-95	3787**87-97-98	3787**88-97-98
-6	3681	3612B/71-84-87	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3761**84-95-96	3787**87-97-98	3787**88-97-98
-8	3681	3624B/72-84-87	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3767**84-95-96	3787**87-97-98	3787**88-97-98
-10	3681	3635B/72-85-87	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3772**85-96-97	3787**87-97-98	3787**88-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 460 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.14 PERCENT FOR TODA AND -0.14 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
34R 13 307 0 276 18484 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2151 FT

RUNWAY 17

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2499	2545*/53-56-58	2600*/54-56-58	2613*/54-56-58	2627*/55-56-58
		2558**61-64-65	2611**68-72-72	2611**68-72-72	2611**69-72-72
58A	2553	2593*/54-57-59	2659*/55-57-59	2673*/56-57-59	2686*/56-57-59
		2605**61-65-66	2664**69-74-74	2664**70-74-74	2664**70-74-74
56A	2615	2646*/56-59-61	2722*/57-59-61	2736*/58-59-61	2750*/58-59-61
		2660**62-65-67	2727**71-76-76	2727**71-76-76	2727**72-76-76
54A	2678	2700*/57-61-63	2784*/59-61-63	2798*/59-61-63	2813*/60-61-63
		2717**63-66-68	2792**74-78-78	2792**73-78-78	2792**73-78-78
52A	2738	2750*/58-63-65	2839*/60-63-65	2858*/60-63-65	2872*/61-63-65
		2771**64-67-69	2851**75-79-79	2856**74-80-80	2856**75-80-80
50	2796	2799*/59-65-67	2891*/61-65-67	2917*/62-65-67	2932*/62-65-67
		2823**65-68-69	2903**75-79-80	2918**76-82-82	2918**76-82-82
48	2866	2866*/62-67-69	2950*/62-67-69	2981*/63-67-69	3004*/64-67-69
		2884**69-69-70	2963**75-80-80	2991**79-84-84	2991**78-84-84
46	2942	2942*/65-69-71	3015*/64-69-71	3047*/65-69-71	3078*/65-69-71
		2950**67-70-72	3028**75-80-81	3066**81-85-86	3071**79-86-86
44	3018	3009B/68-71-73	3079*/65-71-73	3112*/66-71-73	3145*/67-71-73
			3092**75-80-81	3133**81-86-86	3152**83-89-89
42	3088	3029T/64-71-73	3138*/67-73-75	3172*/67-73-75	3206*/68-73-75
			3151**75-81-82	3194**81-86-87	3221**85-90-90
40	3157	3046T/62-71-74	3195*/68-75-77	3231*/69-75-77	3265*/69-75-77
			3208**75-81-82	3252**81-86-87	3280**85-90-91
38	3224	3064T/62-71-75	3251*/69-77-79	3288*/70-77-79	3326*/70-77-79
			3264**74-81-83	3305**80-86-87	3340**84-90-91
36	3288	3082T/62-72-75	3305*/70-78-80	3344*/71-78-80	3382*/72-78-80
			3319**74-82-83	3356**79-86-87	3391**83-90-91
34	3351	3100T/62-72-76	3357*/71-80-82	3397*/72-80-82	3457*/72-80-82
			3368**74-81-83	3405**78-86-87	3456**81-90-90
32	3412	3119T/62-72-76	3412*/72-81-83	3477*/72-81-83	3520*/73-81-83
			3415**73-81-84	3470**76-85-87	3512**80-89-90
30	3468	3139T/62-73-77	3468B/72-81-83	3514*/72-81-83	3554*/73-81-83
				3513**76-85-87	3551**80-89-91
28	3516	3159T/62-73-78	3506B/71-82-84	3551*/72-82-84	3592*/73-82-84
				3549**75-85-87	3589**79-90-91
26	3519	3182T/62-74-78	3515B/71-82-84	3559*/73-82-84	3599*/73-82-84
				3557**75-86-88	3596**80-90-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1560 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.50 PERCENT FOR TODA AND -0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17	16	332	0	70	974	0	216	5608	0
	242	5925	0	292	7481	0	318	9218	0
	474	13271	0	579	15711	0	680	21208	0
	779	23146	0	844	24718	0	999	27442	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 17 BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
COMMENCED AT D2.0 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2151 FT

RUNWAY 17

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3519	3204T/63-75-79	3522*/72-82-84	3564*/73-82-84	3604*/74-82-84
			3522**72-82-84	3562**76-87-88	3601**80-91-92
22	3519	3228T/64-75-79	3528*/72-82-84	3569*/73-82-84	3609*/74-82-84
			3527**72-83-85	3567**77-87-89	3606**81-91-92
20	3519	3251T/64-76-80	3533*/72-82-84	3574*/73-82-84	3614*/74-82-84
			3532**73-83-85	3573**77-88-89	3612**81-92-93
18	3519	3275T/65-77-80	3538*/72-82-84	3579*/73-82-84	3619*/74-82-84
			3538**73-84-86	3578**78-88-90	3617**82-92-93
16	3519	3302B/65-78-81	3543*/72-82-84	3584*/73-82-84	3625*/74-82-84
			3543**74-84-86	3584**78-89-90	3623**83-93-94
14	3520	3329B/65-78-82	3548*/72-82-84	3589*/73-82-84	3630*/74-82-84
			3549**75-85-87	3589**79-89-91	3628**83-94-94
12	3520	3356B/65-79-82	3554*/72-82-84	3595*/73-82-84	3635*/74-82-84
			3554**75-86-87	3594**79-90-91	3633**84-94-95
10	3520	3365B/65-79-83	3559*/72-82-84	3600*/73-82-84	3640*/74-82-84
			3560**76-86-88	3600**80-91-92	3639**84-95-96
8	3521	3373B/65-80-83	3564*/72-82-84	3605*/73-82-84	3644*/74-82-84
			3566**76-87-88	3606**81-91-92	3644**85-96-96
6	3521	3381B/66-80-83	3570*/73-82-84	3611*/73-82-84	3644*/74-82-84
			3572**77-87-89	3611**81-92-93	3650**86-96-97
4	3521	3390B/66-80-83	3575*/73-82-84	3616*/74-82-84	3644*/74-82-84
			3577**77-88-89	3617**82-92-93	3656**86-97-97
2	3522	3398B/67-80-83	3580*/73-82-84	3621*/74-82-84	3644*/75-82-84
			3583**78-88-90	3623**82-93-94	3661**87-97-98
0	3522	3406B/67-81-83	3586*/73-82-84	3626*/74-82-84	3644*/75-82-84
			3588**79-89-90	3629**83-94-94	3667**88-98-98
-2	3522	3417B/68-81-84	3591*/73-82-84	3626*/74-82-84	3644*/75-82-84
			3594**79-90-91	3634**84-94-95	3673**88-99-99
-4	3522	3430B/68-81-84	3596*/73-82-84	3626*/74-82-84	3644*/75-82-84
			3600**80-90-91	3640**84-95-95	3678**89-99-00
-6	3522	3443B/68-81-83	3601*/73-82-84	3625*/74-82-84	3644*/75-82-84
			3605**80-91-92	3645**85-96-96	3683**90-00-00
-8	3522	3456B/69-81-83	3606*/73-82-84	3625*/74-82-84	3644*/75-82-84
			3611**81-92-93	3651**86-96-97	3688**90-01-01
-10	3522	3468B/69-81-83	3606*/73-82-84	3625*/74-82-84	3643*/75-82-84
			3617**82-92-93	3656**86-97-97	3692**91-01-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1560 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.50 PERCENT FOR TODA AND -0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17	16	332	0	70	974	0	216	5608	0
	242	5925	0	292	7481	0	318	9218	0
	474	13271	0	579	15711	0	680	21208	0
	779	23146	0	844	24718	0	999	27442	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 17 BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
COMMENCED AT D2.0 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2151 FT

RUNWAY 18

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2499	2290*/48-48-51	2382*/51-51-54	2411*/52-52-55	2441*/54-54-56
			2385**53-55-57	2416**55-57-59	2448**57-60-62
58A	2553	2334*/48-49-53	2427*/53-53-56	2458*/54-54-56	2488*/55-55-57
			2430**54-56-59	2461**55-58-60	2493**58-60-62
56A	2615	2385*/49-51-54	2481*/54-54-57	2512*/55-55-58	2543*/57-57-59
			2482**57-57-60	2514**57-59-62	2547**58-60-62
54A	2678	2433*/50-52-56	2534*/56-56-59	2566*/57-57-60	2597*/58-58-61
				2568**58-61-63	2601**60-62-64
52A	2738	2478*/51-54-57	2584*/57-57-60	2617*/59-59-61	2649*/60-60-62
				2618**62-62-64	2652**61-63-65
50	2796	2522*/51-55-59	2633*/59-59-62	2667*/60-60-63	2700*/61-61-64
					2702**63-65-67
48	2866	2573*/52-56-60	2690*/61-61-64	2724*/62-62-65	2758*/63-63-66
					2760**64-67-69
46	2942	2623*/52-58-62	2752*/60-62-66	2787*/63-63-67	2822*/65-65-68
					2823**67-67-69
44	3018	2673*/52-59-64	2807*/61-64-67	2850*/63-65-68	2886*/66-66-69
42	3088	2719*/52-60-65	2856*/61-65-69	2901*/64-67-70	2944*/66-68-71
40	3157	2764*/52-62-66	2905*/61-66-70	2951*/64-68-71	2997*/67-69-73
38	3224	2800*/53-63-68	2951*/61-68-72	2999*/64-69-73	3046*/67-71-74
36	3288	2834*/53-63-69	2995*/61-69-73	3044*/64-70-74	3092*/67-72-75
34	3351	2867*/53-64-70	3036*/62-70-74	3086*/64-72-75	3136*/67-73-77
32	3412	2899*/54-65-71	3077*/62-71-75	3128*/65-73-77	3179*/68-74-78
30	3468	2926*/54-66-71	3111*/62-72-76	3163*/65-73-78	3215*/68-75-79
28	3516	2954*/54-66-72	3145*/62-73-77	3198*/65-74-79	3251*/68-76-80
26	3519	2964*/54-67-72	3153*/62-73-77	3206*/65-75-79	3259*/69-76-80
24	3519	2972*/55-67-73	3159*/63-73-78	3212*/66-75-79	3265*/69-76-80
22	3519	2980*/55-67-73	3165*/63-73-78	3218*/66-75-79	3271*/69-77-80
20	3519	2988*/55-68-73	3171*/64-74-78	3224*/67-75-79	3277*/70-77-81
18	3519	2997*/56-68-73	3178*/64-74-78	3230*/67-75-79	3283*/70-77-81
16	3519	3005*/56-68-74	3184*/64-74-78	3237*/68-76-80	3290*/71-77-81
14	3520	3014*/56-68-74	3190*/65-74-78	3243*/68-76-80	3296*/71-77-81
12	3520	3023*/56-69-74	3196*/65-74-78	3249*/68-76-80	3303*/72-78-81
10	3520	3031*/57-69-74	3202*/66-75-79	3255*/69-76-80	3309*/72-78-81
8	3521	3040*/57-69-75	3209*/66-75-79	3262*/69-76-80	3316*/73-78-81
6	3521	3049*/57-70-75	3215*/67-75-79	3268*/70-77-80	3323*/73-78-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.65 PERCENT FOR TODA AND -0.65 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18	3	307	0	8	381	0	35	736	0
	46	823	0	102	1977	0	180	2276	0
	325	10168	0	465	15413	0	581	17805	0
	671	24851	0	763	27160	0	1013	29301	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 18 BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
COMMENCED AT D2.5 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2151 FT

RUNWAY 18

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

4	3521	3058*/58-70-75	3222*/67-75-79	3275*/70-77-80	3329*/73-78-82
2	3522	3068*/58-70-75	3228*/68-75-79	3281*/71-77-81	3336*/74-79-82
0	3522	3075*/58-70-75	3234*/68-76-79	3288*/71-77-81	3342*/74-79-82
-2	3522	3081*/59-71-76	3240*/68-76-80	3294*/72-77-81	3348*/75-79-82
-4	3522	3087*/59-71-76	3247*/69-76-80	3301*/72-78-81	3355*/75-79-82
-6	3522	3093*/60-71-76	3253*/69-76-80	3307*/73-78-81	3361*/76-79-82
-8	3522	3100*/60-71-76	3259*/70-76-80	3314*/73-78-81	3367*/76-79-83
-10	3522	3106*/61-71-76	3266*/70-77-80	3320*/74-78-82	3374*/77-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY
RUNWAY SLOPES ARE -0.65 PERCENT FOR TODA AND -0.65 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M			
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18	3	307	0	8	381	0	35	736	0
	46	823	0	102	1977	0	180	2276	0
	325	10168	0	465	15413	0	581	17805	0
	671	24851	0	763	27160	0	1013	29301	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 18 BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
COMMENCED AT D2.5 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2151 FT

RUNWAY 35

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2499	2358*/50-50-53	2421*/53-53-55	2442*/54-54-56	2463*/54-54-56
		2406**64-69-69	2482**69-73-73	2507**69-73-73	2531**69-73-73
58A	2553	2408*/52-52-55	2473*/54-54-57	2494*/55-55-57	2515*/56-56-58
		2453**65-69-69	2530**70-75-75	2555**71-75-75	2580**71-74-74
56A	2615	2466*/54-54-57	2531*/56-56-59	2553*/57-57-59	2574*/58-58-60
		2507**65-69-70	2586**72-77-77	2612**72-76-76	2637**73-76-76
54A	2678	2522*/55-56-59	2589*/58-58-61	2611*/59-59-61	2633*/59-59-62
		2561**66-69-70	2643**72-76-77	2670**74-79-79	2696**75-78-78
52A	2738	2575*/57-57-60	2644*/60-60-62	2666*/60-60-63	2688*/61-61-63
		2613**66-70-71	2698**74-78-78	2726**76-81-81	2752**77-80-80
50	2796	2627*/59-59-62	2698*/61-61-64	2721*/62-62-64	2743*/63-63-65
		2663**67-70-71	2752**75-79-79	2780**77-81-81	2807**78-82-82
48	2866	2689*/60-60-64	2761*/63-63-66	2785*/64-64-66	2808*/65-65-67
		2721**67-70-72	2814**76-80-80	2843**79-83-83	2871**80-85-85
46	2942	2755*/62-62-66	2830*/65-65-68	2854*/66-66-68	2878*/67-67-69
		2783**68-70-72	2880**76-80-81	2912**80-84-85	2941**82-87-87
44	3018	2822*/64-64-68	2899*/67-67-70	2924*/68-68-70	2948*/69-69-71
		2844**68-71-73	2947**77-80-81	2982**82-86-86	3012**83-87-88
42	3088	2883*/66-66-69	2962*/69-69-72	2988*/70-70-72	3013*/70-70-73
		2902**69-71-74	3006**77-81-82	3045**84-88-88	3076**85-89-89
40	3157	2944*/68-68-71	3025*/70-70-73	3051*/71-71-74	3077*/72-72-75
		2957**69-71-74	3065**78-81-82	3106**84-88-89	3138**87-91-91
38	3224	3001*/69-69-73	3084*/72-72-75	3111*/73-73-76	3138*/74-74-76
		3009**70-71-75	3122**79-81-83	3165**84-88-89	3199**87-91-92
36	3288	3056B/71-71-74	3141*/74-74-77	3169*/74-74-77	3196*/75-75-78
		3060**70-72-75	3174**82-82-83	3219**84-88-89	3255**88-91-92
34	3351	3100T/69-72-76	3195*/75-75-78	3224*/76-76-79	3252*/77-77-80
			3225**80-82-84	3271**85-88-89	3310**88-91-92
32	3412	3119T/64-72-76	3249*/76-76-80	3278*/77-77-80	3307*/78-78-81
			3275**80-82-85	3321**84-87-89	3363**88-91-92
30	3468	3139T/64-73-77	3292*/78-78-81	3323*/78-78-81	3353*/79-79-82
			3313**80-83-85	3359**84-87-89	3405**87-90-92
28	3516	3159T/64-73-78	3335*/79-79-82	3366*/79-79-83	3396*/80-80-83
			3349**79-83-86	3394**83-87-89	3454**87-90-92
26	3519	3182T/65-74-78	3340*/79-79-82	3370*/80-80-83	3401*/80-80-83
			3355**79-84-86	3401**83-88-90	3464**87-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1910 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35	34	570	0	37	639	0	279	3495	0
	390	8586	0	463	9313	0	502	9443	0
	549	9510	0	741	17741	0	749	17995	0
	825	18216	0	936	45591	0	1243	49234	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35 BASED ON A 15 DEGREE BANKED

CLIMBING -RIGHT- TURN, COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND
TRACK OUTBOUND ON PMA VOR R-130

ELEVATION 2151 FT

RUNWAY 35

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3519	3204T/66-75-79	3342*/79-79-82	3372*/80-80-83	3402*/80-80-83
			3360**80-84-87	3406**84-88-90	3470**88-91-92
22	3519	3228T/69-75-79	3344*/79-79-82	3374*/80-80-83	3404*/81-81-83
			3364**81-85-87	3411**85-89-91	3477**88-91-93
20	3519	3232B/69-75-79	3345*/79-79-82	3376*/80-80-83	3406*/81-81-83
			3369**81-85-88	3418**85-89-91	3483**89-92-93
18	3519	3236B/70-76-80	3347*/79-79-82	3378*/80-80-83	3408*/81-81-83
			3374**82-86-88	3425**86-90-91	3489**89-93-94
16	3519	3240B/70-76-80	3349*/79-79-82	3380*/80-80-83	3410*/81-81-84
		3241**70-78-81	3378**82-87-89	3432**86-90-92	3494**90-93-94
14	3520	3244B/71-76-80	3351*/79-79-82	3382*/80-80-83	3412*/81-81-84
		3246**71-78-82	3383**83-87-89	3439**87-91-92	3498**91-94-95
12	3520	3248B/72-76-80	3353*/79-79-82	3384*/80-80-83	3414*/81-81-84
		3250**71-79-82	3388**84-88-90	3447**87-91-92	3503**91-95-96
10	3520	3252B/72-76-80	3355*/79-79-82	3386*/80-80-83	3416*/81-81-84
		3254**72-80-83	3393**84-89-90	3454**88-92-93	3507**92-96-96
8	3521	3256B/73-76-80	3358*/79-79-82	3388*/80-80-83	3419*/81-81-84
		3259**73-80-84	3399**85-89-91	3461**89-92-93	3512**93-96-97
6	3521	3259B/73-76-80	3360*/79-79-82	3389*/80-80-83	3421*/81-81-84
		3263**73-80-83	3404**85-90-91	3468**89-92-94	3517**93-97-98
4	3521	3263B/74-76-80	3361*/79-79-82	3391*/80-80-83	3424*/81-81-84
		3268**74-81-84	3409**86-90-91	3474**90-93-94	3522**94-98-98
2	3522	3267B/75-77-80	3363*/79-79-82	3393*/80-80-83	3426*/81-81-84
		3273**74-81-84	3415**87-90-92	3481**90-94-95	3526**95-99-99
0	3522	3270B/75-77-80	3365*/79-79-83	3395*/80-80-83	3428*/81-81-84
		3277**75-81-84	3423**87-90-92	3487**91-95-96	3530**95-99-00
-2	3522	3273B/76-77-80	3367*/79-79-83	3396*/80-80-83	3430*/81-81-84
		3282**76-82-85	3430**88-91-92	3492**92-96-96	3534**96-00-01
-4	3522	3276B/77-77-81	3368*/80-80-83	3398*/80-80-83	3432*/81-81-84
		3286**76-82-85	3437**88-92-93	3496**92-97-97	3537**97-01-01
-6	3522	3277*/77-77-81	3370*/80-80-83	3400*/80-80-83	3434*/81-81-84
		3291**77-82-85	3444**89-93-94	3501**93-97-98	3541**97-02-02
-8	3522	3279*/77-77-81	3371*/80-80-83	3401*/80-80-83	3436*/81-81-84
		3295**77-83-86	3450**90-93-94	3505**94-98-99	3544**97-02-02
-10	3522	3281*/77-77-81	3373*/80-80-83	3403*/80-80-83	3438*/81-81-84
		3300**78-84-87	3457**90-94-95	3509**95-99-99	3547**97-02-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1960 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35	34	570	0	37	639	0	279	3495	0
	390	8586	0	463	9313	0	502	9443	0
	549	9510	0	741	17741	0	749	17995	0
	825	18216	0	936	45591	0	1243	49234	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35 BASED ON A 15 DEGREE BANKED CLIMBING -
RIGHT- TURN, COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND TRACK
OUTBOUND ON PMA VOR R-130

ELEVATION 2151 FT

RUNWAY 36

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2499	2311*/45-49-52	2465*/53-54-57	2514*/56-56-58	2529*/56-56-58
				2508**56-57-59	2534**59-60-62
58A	2553	2347*/46-50-53	2503*/54-56-58	2555*/57-57-59	2587*/57-57-59
				2554**57-57-59	2580**60-61-62
56A	2615	2388*/47-51-55	2547*/55-57-59	2601*/58-59-61	2643*/59-59-61
					2634**61-62-63
54A	2678	2429F/48-52-56	2591*/56-58-61	2646*/59-60-62	2697*/61-61-63
					2689**62-62-64
52A	2738	2467F/49-53-57	2633*/57-59-62	2689*/60-61-63	2742*/62-63-65
					2740**62-63-65
50	2796	2504F/50-54-58	2673*/58-60-63	2727*/60-62-65	2781*/63-64-66
48	2866	2546F/51-55-60	2715*/58-61-64	2770*/61-63-66	2826*/63-65-67
46	2942	2591F/52-57-61	2759*/59-63-66	2815*/61-64-67	2872*/64-66-69
44	3018	2632F/52-58-62	2802F/59-64-67	2860*/62-66-69	2918*/64-68-70
42	3088	2670F/53-59-64	2842F/60-65-68	2902F/62-67-70	2961*/65-69-72
40	3157	2708F/53-60-65	2882F/60-66-70	2942F/63-68-71	3003*/65-70-73
38	3224	2743F/53-61-66	2919F/61-67-71	2980F/63-69-72	3042F/66-71-74
36	3288	2777F/54-61-67	2955F/61-67-72	3017F/64-70-73	3080F/66-72-75
34	3351	2809F/54-62-68	2989F/62-68-73	3052F/64-70-74	3116F/67-72-76
32	3412	2840F/55-63-69	3023F/62-69-74	3086F/65-71-75	3151F/67-73-77
30	3468	2867F/55-64-70	3051F/63-70-75	3116F/65-72-76	3181F/68-74-78
28	3516	2895F/55-64-71	3081F/63-71-76	3146F/66-73-77	3212F/68-75-79
26	3519	2904F/55-65-71	3091F/63-71-76	3156F/66-73-77	3223F/69-75-79
24	3519	2912F/56-65-71	3100F/64-71-76	3165F/66-73-78	3232F/69-75-79
22	3519	2920F/56-65-71	3108F/64-71-76	3174F/67-74-78	3241F/69-76-80
20	3519	2928F/56-66-72	3117F/64-72-76	3184F/67-74-78	3251F/70-76-80
18	3519	2936F/57-66-72	3127F/65-72-77	3193F/67-74-78	3260F/70-76-80
16	3519	2945F/57-66-72	3136F/65-72-77	3202F/68-75-79	3270F/70-77-80
14	3520	2953F/57-66-72	3145F/65-73-77	3212F/68-75-79	3280F/71-77-81
12	3520	2962F/58-67-72	3154F/66-73-77	3222F/68-75-79	3290F/71-77-81
10	3520	2970F/58-67-73	3164F/66-73-78	3231F/69-75-79	3301F/71-78-81
8	3521	2979F/58-67-73	3173F/66-74-78	3241F/69-76-80	3311F/72-78-81
6	3521	2988F/59-68-73	3183F/67-74-78	3251F/69-76-80	3322F/72-78-82
4	3521	2997F/59-68-73	3193F/67-74-78	3261F/70-76-80	3332*/72-78-82
2	3522	3005F/59-68-74	3203F/67-75-79	3271F/70-77-80	3343*/73-79-82
0	3522	3014F/60-68-74	3213F/68-75-79	3281F/70-77-81	3353*/73-79-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1910 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 240 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.65 PERCENT FOR TODA AND 0.65 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	6	271	0	12	334	0	27	769	0
	224	4874	0	325	9699	0	418	10281	0
	454	10425	0	500	10557	0	564	13211	0
	692	15343	0	773	15660	0	1192	47004	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2151 FT

RUNWAY 36

OEMA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-2	3522	3023F/60-69-74	3223F/68-75-79	3292F/71-77-81	3364*/73-79-83
-4	3522	3032F/60-69-74	3232F/68-75-79	3302*/71-78-81	3374*/74-80-83
-6	3522	3041F/61-69-75	3242F/69-76-80	3313*/71-78-81	3385*/74-80-83
-8	3522	3050F/61-70-75	3253F/69-76-80	3323*/72-78-82	3396*/75-80-83
-10	3522	3060F/61-70-75	3263F/69-76-80	3334*/72-79-82	3407*/75-81-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1910 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 240 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.65 PERCENT FOR TODA AND 0.65 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	6	271	0	12	334	0	27	769	0
	224	4874	0	325	9699	0	418	10281	0
	454	10425	0	500	10557	0	564	13211	0
	692	15343	0	773	15660	0	1192	47004	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2049 FT

RUNWAY 15L

OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2509	2573*/54-56-58	2657*/55-56-58	2685*/55-56-58	2712*/55-56-58
		2574**62-65-66	2621**69-73-73	2621**69-73-73	2621**70-73-73
58A	2562	2620*/55-58-59	2706*/56-58-59	2734*/57-58-59	2762*/57-58-59
		2621**63-66-67	2674**70-74-74	2674**70-74-74	2674**71-74-74
56A	2625	2671*/57-59-61	2763*/58-59-61	2792*/58-59-61	2820*/59-59-61
		2676**64-67-68	2737**72-76-76	2737**72-76-76	2737**72-76-76
54A	2688	2723*/58-61-63	2818*/60-61-63	2849*/60-61-63	2879*/60-61-63
		2729**64-67-68	2799**73-78-78	2803**73-78-78	2803**74-78-78
52A	2748	2771*/59-63-65	2869*/61-63-65	2902*/61-63-65	2933**62-63-65
		2780**64-67-69	2854**74-78-78	2867**75-80-80	2867**75-80-80
50	2808	2819*/60-65-67	2920*/62-65-67	2953*/63-65-67	2986*/63-65-67
		2830**64-68-69	2906**74-78-79	2929**77-82-82	2931**77-82-82
48	2878	2878*/62-67-69	2978*/63-67-69	3012*/64-67-69	3046*/65-67-69
		2888**64-68-70	2967**74-79-79	2991**77-82-82	3004**79-84-84
46	2955	2944*/64-69-71	3040*/65-69-71	3075*/66-69-71	3110*/66-69-71
			3032**74-79-80	3057**77-83-83	3081**81-86-86
44	3031	2992*/64-70-72	3101*/66-71-73	3137*/67-71-73	3174*/68-71-73
			3096**74-79-80	3124**77-83-84	3149**81-87-87
42	3101	3037*/65-71-74	3157*/68-73-75	3194*/68-73-75	3232*/69-73-75
			3155**74-80-81	3183**77-83-84	3210**81-87-87
40	3169	3058T/63-71-74	3211*/69-75-77	3250*/70-75-77	3289*/70-75-77
			3213**74-80-82	3241**77-84-85	3270**81-87-88
38	3238	3075T/63-72-75	3265*/70-77-79	3306*/71-77-79	3348*/71-77-79
			3269**74-80-82	3300**77-84-85	3331**81-88-88
36	3302	3094T/63-72-75	3317*/71-79-81	3360*/72-79-81	3402*/73-79-81
			3324**74-81-83	3356**78-84-86	3386**81-88-89
34	3365	3112T/63-72-76	3366*/72-80-82	3410*/73-80-82	3492*/74-80-82
			3376**74-81-83	3409**78-85-86	3455**81-88-89
32	3430	3131T/63-73-77	3430*/73-81-83	3495*/73-81-83	3537*/74-81-83
			3432**74-81-83	3481**77-85-86	3515**81-88-90
30	3483	3151T/63-73-77	3483*/73-81-83	3523*/73-81-83	3566*/74-81-83
				3522**77-85-87	3558**81-89-90
28	3528	3171T/63-73-78	3512B/72-82-84	3560*/74-82-84	3604*/74-82-84
				3558**76-85-87	3596**81-89-91
26	3529	3194T/63-74-78	3521B/73-82-84	3566*/74-82-84	3611*/75-82-84
				3563**77-86-88	3601**81-90-91
24	3529	3217T/64-75-79	3529*/73-82-84	3572*/74-82-84	3617*/75-82-84
			3530**73-82-85	3568**77-86-88	3606**82-90-92
22	3529	3240T/65-76-80	3533*/73-82-84	3578*/74-82-84	3623*/75-82-84
			3535**74-83-85	3574**78-87-88	3611**82-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 730 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.15 PERCENT FOR TODA AND -0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

15L 23 295 0 447 21430 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 15L

OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3529	3264T/66-76-80	3539*/73-82-84	3584*/74-82-84	3629*/75-82-84
			3540**74-83-85	3579**79-87-89	3617**83-92-93
18	3529	3289B/66-77-81	3546*/73-82-84	3590*/74-82-84	3635*/75-82-84
			3546**75-84-86	3585**79-88-89	3622**83-92-93
16	3529	3316B/66-78-81	3552*/73-82-84	3597*/74-82-84	3641*/75-82-84
			3551**75-85-86	3590**80-89-90	3627**84-93-94
14	3530	3337B/66-79-82	3558*/73-82-84	3603*/74-82-84	3647*/75-82-84
			3557**76-85-87	3596**80-89-90	3632**84-93-94
12	3530	3346B/66-79-82	3564*/73-82-84	3609*/74-82-84	3654*/75-82-84
			3562**77-86-87	3601**81-90-91	3637**85-94-95
10	3530	3356B/67-79-82	3571*/74-82-84	3616*/74-82-84	3660*/75-82-84
			3568**77-86-88	3607**81-90-92	3642**86-94-95
8	3531	3366B/67-79-83	3577*/74-82-84	3622*/74-82-84	3667*/75-82-84
			3574**78-87-88	3613**82-91-92	3648**86-95-96
6	3531	3376B/68-80-83	3584*/74-82-84	3628*/75-82-84	3673*/75-82-84
			3580**78-87-89	3618**83-92-93	3653**87-96-96
4	3531	3386B/68-80-83	3590*/74-82-84	3635*/75-82-84	3679*/76-82-84
			3586**79-88-89	3624**83-92-93	3658**87-96-97
2	3532	3395B/68-80-83	3596*/74-82-85	3641*/75-82-85	3686*/76-82-85
			3592**79-89-90	3630**84-93-94	3664**88-97-97
0	3532	3405B/69-81-83	3603*/74-82-85	3648*/75-82-85	3692*/76-82-85
			3597**80-89-90	3636**85-93-94	3669**88-97-98
-2	3532	3418B/69-81-84	3609*/74-82-85	3654*/75-82-85	3699*/76-82-85
			3603**81-90-91	3641**85-94-95	3674**89-98-98
-4	3532	3435B/69-81-84	3615*/74-82-85	3660*/75-82-85	3705*/76-82-85
			3608**81-90-92	3646**86-95-95	3679**89-99-99
-6	3532	3451B/70-81-83	3622*/74-82-85	3667*/75-82-85	3711*/76-82-85
			3614**82-91-92	3651**86-95-96	3685**90-99-99
-8	3532	3467B/70-81-83	3628*/74-82-85	3673*/75-82-85	3718*/76-82-85
			3620**83-92-93	3656**87-96-96	3690**91-00-00
-10	3532	3484B/70-81-83	3634*/74-82-85	3679*/75-82-85	3724*/76-82-85
			3626**83-92-93	3662**87-97-97	3694**91-00-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 730 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.15 PERCENT FOR TODA AND -0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

15L	23	295	0	447	21430	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 15R OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING KHALED INTL
RIYADH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2509	2557*/54-56-58	2640*/55-56-58	2667*/55-56-58	2694*/55-56-58
		2561**61-63-64	2621**69-73-73	2621**69-73-73	2621**70-73-73
58A	2562	2603*/55-58-59	2688*/56-58-59	2716*/57-58-59	2743*/57-58-59
		2608**62-64-65	2674**70-74-74	2674**70-74-74	2674**71-74-74
56A	2625	2655*/57-59-61	2745*/58-59-61	2774*/58-59-61	2802*/59-59-61
		2664**63-65-66	2732**72-75-76	2737**72-76-76	2737**72-76-76
54A	2688	2706*/58-61-63	2800*/60-61-63	2831*/60-61-63	2861*/61-61-63
		2720**64-66-67	2791**73-76-76	2803**74-78-78	2803**74-78-78
52A	2748	2755*/59-63-65	2851*/61-63-65	2883*/61-63-65	2915*/62-63-65
		2773**64-66-68	2848**74-77-77	2867**76-80-80	2867**76-80-80
50	2808	2808*/61-65-67	2902*/62-65-67	2935*/63-65-67	2967*/63-65-67
		2823**64-67-68	2901**74-78-78	2925**77-81-81	2931**77-82-82
48	2878	2878*/64-67-69	2960*/63-67-69	2994*/64-67-69	3027*/65-67-69
		2879**64-67-69	2962**74-78-79	2986**77-82-82	3004**79-84-84
46	2955	2930*/65-68-70	3022*/65-69-71	3057*/66-69-71	3092*/66-69-71
			3026**74-78-79	3052**77-82-82	3077**81-85-86
44	3031	2979*/65-69-72	3084*/66-71-73	3119*/67-71-73	3155*/68-71-73
			3090**74-79-80	3118**77-82-83	3144**81-86-86
42	3101	3024*/65-71-73	3140*/68-73-75	3177*/68-73-75	3213*/69-73-75
			3149**74-79-80	3177**77-83-83	3205**81-86-87
40	3169	3058T/64-71-74	3194*/69-75-77	3233*/70-75-77	3270*/70-75-77
			3206**74-79-81	3235**78-83-84	3264**81-87-87
38	3238	3075T/63-72-75	3248*/70-77-79	3288*/71-77-79	3329*/72-77-79
			3262**74-80-81	3294**78-83-85	3324**81-87-88
36	3302	3094T/63-72-75	3302*/71-79-81	3341*/72-79-81	3383*/73-79-81
			3316**74-80-82	3349**78-84-85	3380**81-87-88
34	3365	3112T/63-72-76	3365*/74-80-82	3392*/73-80-82	3460*/74-80-82
			3368**74-80-82	3402**78-84-86	3446**81-87-89
32	3429	3131T/63-73-77	3412B/74-81-83	3465*/73-81-83	3519*/74-81-83
				3471**77-84-86	3508**81-88-89
30	3483	3151T/63-73-77	3460B/73-81-83	3505*/73-81-83	3548*/74-81-83
				3515**77-84-86	3550**81-88-89
28	3528	3171T/63-73-78	3499B/73-81-84	3542*/74-82-84	3586*/75-82-84
				3550**77-84-86	3589**81-89-90
26	3529	3194T/64-74-78	3508B/73-82-84	3548*/74-82-84	3592*/75-82-84
				3556**77-85-87	3594**82-89-90
24	3529	3217T/64-75-79	3517B/74-82-84	3554*/74-82-84	3598*/75-82-84
				3561**78-86-87	3600**82-90-91
22	3529	3240T/65-76-80	3526B/74-82-84	3560*/74-82-84	3603*/75-82-84
				3566**78-86-88	3604**83-90-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

15R 27 295 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 15R OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING KHALED INTL
RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3529	3264T/66-76-80	3529*/74-82-84	3566*/74-82-84	3609*/75-82-84
			3533**75-83-85	3572**79-87-88	3609**83-91-92
18	3529	3289B/66-77-81	3529*/73-82-84	3572*/74-82-84	3615*/75-82-84
			3538**75-83-85	3578**79-87-89	3615**84-91-92
16	3529	3315B/66-78-81	3534*/73-82-84	3578*/74-82-84	3621*/75-82-84
			3543**76-84-86	3583**80-88-89	3620**84-92-93
14	3530	3324B/67-78-82	3540*/73-82-84	3584*/74-82-84	3627*/75-82-84
			3549**76-84-86	3589**81-88-90	3625**85-92-93
12	3530	3334B/67-78-82	3546*/74-82-84	3590*/74-82-84	3634*/75-82-84
			3555**77-85-87	3594**81-89-90	3630**85-93-94
10	3530	3343B/67-79-82	3552*/74-82-84	3596*/74-82-84	3640*/75-82-84
			3560**77-85-87	3600**82-90-91	3636**86-94-94
8	3531	3353B/68-79-82	3558*/74-82-84	3602*/75-82-84	3646*/75-82-84
			3566**78-86-88	3606**82-90-91	3641**86-94-95
6	3531	3362B/68-79-82	3564*/74-82-84	3608*/75-82-84	3652*/76-82-84
			3572**79-87-88	3611**83-91-92	3646**87-95-95
4	3531	3372B/69-80-83	3570*/74-82-84	3615*/75-82-84	3658*/76-82-84
			3578**79-87-89	3617**84-91-92	3652**87-95-96
2	3532	3382B/69-80-83	3577*/74-82-85	3621*/75-82-85	3665*/76-82-85
			3584**80-88-89	3623**84-92-93	3657**88-96-96
0	3532	3392B/69-80-83	3583*/74-82-85	3627*/75-82-85	3671*/76-82-85
			3590**80-88-90	3628**85-93-94	3662**88-97-97
-2	3532	3401B/70-80-83	3589*/74-82-85	3633*/75-82-85	3677*/76-82-85
			3595**81-89-90	3634**85-93-94	3667**89-97-98
-4	3532	3411B/70-81-84	3595*/74-82-85	3639*/75-82-85	3683*/76-82-85
			3601**82-90-91	3639**86-94-95	3673**90-98-98
-6	3532	3428B/71-81-84	3601*/74-82-85	3645*/75-82-85	3689*/76-82-85
			3607**82-90-91	3644**86-94-95	3678**90-98-99
-8	3532	3444B/71-81-84	3607*/74-82-85	3651*/75-82-85	3695*/76-82-85
			3613**83-91-92	3649**87-95-96	3683**91-99-99
-10	3532	3459B/71-81-83	3613*/75-82-85	3657*/75-82-85	3701*/76-82-85
			3618**84-92-93	3655**88-96-96	3688**91-00-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
15R 27 295 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33L OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING KHALED INTL
 RIYADH
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2509	2527*/54-56-58	2606*/55-56-58	2632*/55-56-58	2658*/56-56-58
		2535**58-60-61	2609**67-71-71	2621**69-73-73	2621**70-73-73
58A	2562	2574*/56-58-59	2655*/57-58-59	2681*/57-58-59	2707*/57-58-59
		2582**59-60-62	2657**68-71-72	2674**71-74-74	2674**71-74-74
56A	2625	2626*/57-59-61	2712*/58-59-61	2739*/59-59-61	2766*/59-59-61
		2637**60-61-63	2714**69-72-73	2736**73-76-76	2737**73-76-76
54A	2688	2688*/60-61-63	2768*/60-61-63	2797*/61-61-63	2825*/61-61-63
		2693**61-62-64	2772**70-73-74	2795**74-77-77	2803**74-78-78
52A	2748	2745*/62-63-65	2820*/61-63-65	2850*/62-63-65	2879*/62-63-65
			2828**74-74-75	2852**75-78-78	2867**76-80-80
50	2808	2795*/63-64-66	2871*/62-65-67	2902*/63-65-67	2932*/64-65-67
			2883**72-75-76	2908**75-79-79	2931**79-82-82
48	2878	2852*/65-66-68	2929*/64-67-69	2961*/64-67-69	2993*/65-67-69
			2945**73-76-77	2972**76-79-80	2996**80-83-83
46	2955	2903*/65-67-70	2992*/65-69-71	3025*/66-69-71	3058*/67-69-71
			3013**74-76-77	3041**77-80-81	3066**81-84-84
44	3031	2953*/65-69-71	3054*/67-71-73	3089*/68-71-73	3123*/68-71-73
			3076**74-77-78	3105**77-80-81	3132**81-84-85
42	3101	2999*/66-70-73	3111*/68-73-75	3146*/69-73-75	3181*/69-73-75
			3134**74-77-79	3164**78-81-82	3193**81-85-85
40	3169	3044*/66-71-74	3169*/70-75-77	3203*/70-75-77	3239*/71-75-77
			3191**74-78-79	3222**78-81-83	3251**81-85-86
38	3238	3075T/65-72-75	3238*/73-77-79	3258*/71-77-79	3296*/72-77-79
			3247**74-78-80	3279**78-82-83	3311**81-85-86
36	3302	3094T/64-72-75	3297*/75-78-81	3311*/72-79-81	3351*/73-79-81
				3334**78-82-84	3367**81-86-87
34	3365	3112T/64-72-76	3341*/75-79-82	3365*/74-80-82	3403*/74-80-82
				3387**78-82-84	3425**81-86-87
32	3430	3131T/63-73-77	3383*/75-80-83	3430*/75-81-83	3487*/75-81-83
				3448**78-82-84	3494**81-86-87
30	3483	3151T/63-73-77	3424*/75-81-83	3483*/75-81-83	3517*/74-81-83
				3499**78-83-85	3536**81-86-88
28	3528	3171T/63-73-78	3473B/74-81-83	3528*/76-82-84	3555*/75-82-84
				3538**78-83-85	3575**81-87-89
26	3529	3194T/64-74-78	3487B/75-81-83	3529*/76-82-84	3560*/75-82-84
				3543**78-84-86	3580**82-88-89
24	3529	3217T/65-75-79	3496B/75-81-84	3529*/75-82-84	3566*/75-82-84
				3548**79-84-86	3585**82-88-89
22	3529	3240T/66-76-80	3504B/76-81-84	3529*/75-82-84	3571*/75-82-84
				3553**79-85-87	3590**83-89-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

33L 30 295 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33L

OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3529	3264T/66-76-80	3513B/76-82-84	3535*/75-82-84	3577*/75-82-84
				3558**80-85-87	3595**83-89-90
18	3529	3288B/67-77-81	3522B/77-82-84	3540*/75-82-84	3582*/76-82-84
				3564**80-86-88	3600**84-90-91
16	3529	3297B/68-77-81	3529*/77-82-84	3546*/75-82-84	3588*/76-82-84
				3569**81-86-88	3605**84-90-91
14	3530	3306B/68-78-81	3530*/76-82-84	3551*/75-82-84	3593*/76-82-84
			3536**78-83-85	3574**81-87-88	3610**85-91-92
12	3530	3315B/68-78-81	3530*/76-82-84	3557*/75-82-84	3599*/76-82-84
			3542**78-83-86	3580**82-87-89	3615**85-91-92
10	3530	3324B/69-78-82	3530*/75-82-84	3562*/75-82-84	3604*/76-82-84
			3547**79-84-86	3585**82-88-89	3621**86-92-93
8	3531	3333B/69-78-82	3531*/75-82-84	3568*/75-82-84	3610*/76-82-84
			3553**79-85-87	3591**83-89-90	3626**86-93-93
6	3531	3343B/70-79-82	3532*/74-82-84	3574*/75-82-84	3616*/76-82-84
			3559**80-85-87	3596**83-89-90	3632**87-93-94
4	3531	3352B/70-79-82	3537*/75-82-84	3580*/75-82-84	3621*/76-82-84
			3564**80-86-87	3602**84-90-91	3637**88-94-94
2	3532	3362B/71-79-82	3543*/75-82-85	3585*/75-82-85	3627*/76-82-85
			3570**81-86-88	3607**84-90-91	3643**88-94-95
0	3532	3371B/71-80-83	3549*/75-82-85	3591*/76-82-85	3632*/76-82-85
			3575**81-87-88	3612**85-91-92	3648**89-95-96
-2	3532	3380B/71-80-83	3554*/75-82-85	3596*/76-82-85	3638*/76-82-85
			3581**82-87-89	3618**86-91-92	3653**89-95-96
-4	3532	3390B/72-80-83	3560*/75-82-85	3602*/76-82-85	3643*/77-82-85
			3587**82-88-89	3623**86-92-93	3658**90-96-97
-6	3532	3399B/72-80-83	3565*/75-82-85	3607*/76-82-85	3649*/77-82-85
			3592**83-89-90	3629**87-93-94	3663**90-97-97
-8	3532	3409B/73-81-84	3571*/75-82-85	3613*/76-82-85	3654*/77-82-85
			3597**84-89-90	3634**87-93-94	3669**91-97-98
-10	3532	3423B/73-81-84	3576*/75-82-85	3618*/76-82-85	3660*/77-82-85
			3603**84-90-91	3640**88-94-95	3674**92-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

33L	30	295	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33R OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF KING KHALED INTL
 RIYADH
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2509	2525*/54-56-58	2603*/55-56-58	2629*/56-56-58	2655*/56-56-58
		2533**58-59-61	2608**67-70-71	2621**70-73-73	2621**70-73-73
58A	2562	2571*/56-58-59	2652*/57-58-59	2678*/57-58-59	2704*/57-58-59
		2580**59-60-62	2656**68-71-71	2674**71-74-74	2674**71-74-74
56A	2625	2625*/57-59-61	2710*/59-59-61	2736*/59-59-61	2763*/59-59-61
		2635**60-61-63	2712**69-72-72	2734**72-76-76	2737**73-76-76
54A	2688	2688*/60-61-63	2765*/60-61-63	2794*/61-61-63	2822*/61-61-63
		2690**61-62-64	2770**70-73-73	2794**73-77-77	2803**74-78-78
52A	2748	2742*/62-63-65	2817*/61-63-65	2847*/62-63-65	2876*/62-63-65
			2826**71-74-74	2850**74-77-78	2867**76-80-80
50	2808	2792*/63-64-66	2869*/63-65-67	2899*/63-65-67	2929*/64-65-67
			2881**72-75-75	2906**75-78-79	2930**79-82-82
48	2878	2850*/65-66-68	2927*/64-67-69	2959*/65-67-69	2990*/65-67-69
			2944**73-75-76	2970**76-79-80	2995**80-83-83
46	2955	2901*/65-67-70	2990*/65-69-71	3023*/66-69-71	3056*/67-69-71
			3012**74-76-77	3040**77-80-81	3065**81-84-84
44	3031	2951*/65-69-71	3052*/67-71-73	3086*/68-71-73	3120*/68-71-73
			3075**74-77-78	3104**77-80-81	3131**81-84-85
42	3101	2997*/66-70-73	3109*/68-73-75	3144*/69-73-75	3179*/70-73-75
			3133**74-77-79	3163**78-81-82	3192**81-84-85
40	3169	3042*/66-71-74	3169*/70-75-77	3201*/70-75-77	3237*/71-75-77
			3190**74-77-79	3221**78-81-82	3250**81-85-86
38	3238	3075T/65-72-75	3238*/73-77-79	3256*/71-77-79	3294*/72-77-79
			3245**74-78-80	3278**78-81-83	3310**81-85-86
36	3302	3094T/64-72-75	3295*/75-78-81	3309*/73-79-81	3349*/73-79-81
				3332**78-82-84	3366**81-86-87
34	3365	3112T/64-72-76	3339*/75-79-82	3365*/74-80-82	3401*/74-80-82
				3386**78-82-84	3423**81-86-87
32	3430	3131T/63-73-77	3381*/75-80-83	3430*/76-81-83	3484*/75-81-83
				3446**78-82-84	3493**81-86-87
30	3483	3151T/64-73-77	3421*/75-81-83	3483*/75-81-83	3515*/75-81-83
				3498**78-83-85	3534**81-86-88
28	3528	3171T/64-73-78	3471B/75-81-83	3528*/76-82-84	3553*/75-82-84
				3537**78-83-85	3573**81-87-88
26	3529	3194T/64-74-78	3485B/75-81-83	3529*/76-82-84	3558*/75-82-84
				3542**78-84-86	3579**82-87-89
24	3529	3217T/65-75-79	3495B/75-81-84	3529*/75-82-84	3564*/75-82-84
				3547**79-84-86	3584**82-88-89
22	3529	3240T/66-76-80	3503B/76-81-84	3529*/75-82-84	3569*/75-82-84
				3552**79-85-87	3589**83-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.15 PERCENT FOR TODA AND 0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33R	30	297	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33R OERK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

KING KHALED INTL
RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3529	3264T/66-76-80	3512B/76-82-84	3533*/75-82-84	3574*/76-82-84
				3557**80-85-87	3594**83-89-90
18	3529	3287B/67-77-81	3521B/77-82-84	3538*/75-82-84	3580*/76-82-84
				3562**80-86-87	3599**84-90-91
16	3529	3296B/68-77-81	3529B/77-82-84	3544*/75-82-84	3585*/76-82-84
				3568**81-86-88	3604**84-90-91
14	3530	3305B/68-78-81	3530*/77-82-84	3549*/75-82-84	3591*/76-82-84
			3535**78-83-85	3573**81-87-88	3609**85-91-92
12	3530	3314B/69-78-81	3530*/76-82-84	3555*/75-82-84	3596*/76-82-84
			3541**78-83-85	3578**82-87-89	3614**85-91-92
10	3530	3323B/69-78-82	3530*/76-82-84	3560*/75-82-84	3602*/76-82-84
			3546**79-84-86	3584**82-88-89	3620**86-92-93
8	3531	3333B/69-78-82	3531*/75-82-84	3566*/75-82-84	3607*/76-82-84
			3552**79-84-86	3590**83-88-90	3625**86-92-93
6	3531	3342B/70-79-82	3531*/75-82-84	3572*/75-82-84	3613*/76-82-84
			3557**80-85-87	3595**83-89-90	3631**87-93-94
4	3531	3351B/70-79-82	3535*/75-82-84	3577*/75-82-84	3619*/76-82-84
			3563**80-86-87	3600**84-90-91	3636**88-94-94
2	3532	3360B/71-79-82	3541*/75-82-85	3583*/76-82-85	3624*/76-82-85
			3568**81-86-88	3606**84-90-91	3641**88-94-95
0	3532	3370B/71-79-83	3546*/75-82-85	3588*/76-82-85	3630*/76-82-85
			3574**81-87-88	3611**85-91-92	3647**89-95-95
-2	3532	3379B/72-80-83	3552*/75-82-85	3594*/76-82-85	3635*/77-82-85
			3580**82-87-89	3616**86-91-92	3652**89-95-96
-4	3532	3388B/72-80-83	3557*/75-82-85	3599*/76-82-85	3640*/77-82-85
			3585**82-88-89	3622**86-92-93	3657**90-96-96
-6	3532	3398B/72-80-83	3563*/75-82-85	3605*/76-82-85	3646*/77-82-85
			3591**83-88-90	3627**87-93-93	3662**90-97-97
-8	3532	3407B/73-81-83	3568*/75-82-85	3610*/76-82-85	3651*/77-82-85
			3596**84-89-90	3633**87-93-94	3668**91-97-98
-10	3532	3420B/73-81-84	3574*/75-82-85	3615*/76-82-85	3656*/77-82-85
			3601**84-90-91	3638**88-94-94	3673**92-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 420 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.15 PERCENT FOR TODA AND 0.15 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS FROM LO-FT/M				
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33R	30	297	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07L

OPKC

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2699	2624F/57-59-61	2748*/61-62-64	2778*/61-62-64	2805*/62-62-64
			2737**65-67-68	2759**68-70-71	2781**71-73-74
58A	2757	2664F/57-60-63	2797*/62-63-65	2828*/63-63-65	2858*/63-63-65
			2788**65-67-69	2811**68-71-72	2833**71-74-74
56A	2824	2711F/57-61-64	2854*/63-65-67	2885*/64-65-67	2916*/64-65-67
			2847**66-68-70	2870**69-72-73	2893**72-75-76
54	2893	2752F/58-62-65	2912*/65-67-69	2945*/65-67-69	2976*/66-67-69
			2908**66-69-71	2932**69-72-74	2955**72-76-77
52	2971	2797F/58-64-67	2975*/66-69-71	3011*/67-69-71	3044*/67-69-71
			2973**66-70-72	3001**69-73-75	3026**73-77-78
50	3047	2840F/59-65-68	3025F/66-71-73	3075*/68-72-74	3109*/69-72-74
				3065**69-74-76	3092**73-77-78
48	3126	2884F/59-66-69	3071F/67-72-74	3136F/70-74-76	3175*/71-74-76
				3131**70-74-76	3158**73-78-79
46	3203	2924F/60-67-71	3114F/67-73-76	3180F/70-75-77	3239*/72-76-78
					3222**73-78-80
44	3279	2965F/60-68-72	3157F/68-74-77	3223F/70-76-79	3292F/73-78-80
					3285**73-79-81
42	3353	3005F/61-69-73	3199F/68-75-78	3267F/71-77-80	3338F/74-79-81
40	3429	3044F/61-70-74	3240F/69-76-79	3310F/71-78-81	3383F/74-80-83
38	3502	3080F/61-71-75	3279F/69-77-80	3351F/72-79-82	3437F/74-81-83
36	3571	3117F/62-71-76	3320F/70-78-81	3393F/72-80-83	3503F/74-81-84
34	3635	3150F/62-72-77	3357F/70-79-82	3448F/72-80-84	3540F/74-82-85
32	3666	3170F/62-73-78	3379F/70-79-83	3489F/72-80-84	3563F/75-83-85
30	3667	3179F/63-73-78	3389F/71-79-83	3500F/72-81-84	3573F/75-83-86
28	3667	3188F/63-73-78	3400F/71-80-83	3510F/73-81-84	3584F/75-83-86
26	3668	3197F/63-74-79	3410F/71-80-84	3520F/73-81-84	3595F/76-84-86
24	3669	3206F/63-74-79	3430F/71-80-84	3531F/73-82-85	3606F/76-84-86
22	3670	3215F/64-74-79	3449F/71-80-84	3541F/74-82-85	3616F/77-84-87
20	3670	3225F/64-74-79	3469F/72-80-84	3552F/74-82-85	3627F/77-84-87
18	3671	3234F/64-75-80	3489F/72-80-84	3563F/74-83-85	3639F/77-85-87
16	3672	3243F/65-75-80	3499F/72-81-84	3574F/75-83-86	3650F/78-85-87
14	3673	3253F/65-75-80	3510F/72-81-84	3585F/75-83-86	3661F/78-85-88
12	3674	3263F/65-76-80	3521F/73-81-84	3596F/76-84-86	3673F/78-86-88
10	3675	3273F/66-76-81	3531F/73-82-85	3607F/76-84-86	3684F/79-86-88
					3679**79-86-88
8	3675	3283F/66-76-81	3542F/73-82-85	3618F/76-84-87	3696F/79-86-88
					3685**79-87-89
6	3676	3293F/66-77-81	3553F/74-82-85	3630F/77-85-87	3708F/79-86-88
					3690**80-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 914 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.20 PERCENT FOR TODA AND 0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

07L 39 1080 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07L OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
4	3677	3303F/67-77-81	3564F/74-83-85	3641F/77-85-87	3716*/79-86-88 3696**80-88-90
2	3677	3314F/67-77-82	3575F/75-83-86	3653F/77-85-88	3722*/80-86-88 3702**81-89-90
0	3677	3325F/67-77-82	3587F/75-83-86	3664F/78-86-88	3727*/80-86-88 3707**81-89-91
-2	3677	3335F/68-78-82	3598F/75-84-86	3676F/78-86-88	3733*/80-86-88 3713**82-90-91
-4	3678	3346F/68-78-82	3609F/76-84-87	3688F/79-86-88 3682**79-86-89	3738*/80-86-88 3718**83-90-92
-6	3678	3357F/68-78-83	3621F/76-84-87	3700F/79-86-88 3688**79-87-89	3744*/80-86-88 3724**83-91-92
-8	3678	3368F/69-79-83	3632F/76-85-87	3706*/79-86-88 3693**80-88-90	3749*/80-86-88 3730**84-91-93
-10	3678	3379F/69-79-83	3644F/77-85-87	3711*/79-86-88 3699**80-88-90	3755*/80-86-88 3735**84-92-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 914 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.20 PERCENT FOR TODA AND 0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

07L	39	1080	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07R

OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT	CLIMB	WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)			
C	100KG	-10	0	10	20

60A	2699	2553*/56-56-59	2641*/60-60-62	2668*/61-61-63	2696*/61-61-63
		2559**59-62-64	2655**66-68-69	2687**67-69-70	2719**69-71-72
58A	2757	2604*/58-58-61	2694*/61-61-64	2722*/62-62-64	2750*/63-63-65
		2608**60-62-64	2705**67-69-71	2738**68-71-72	2770**70-72-73
56A	2824	2662*/60-60-63	2754*/63-63-65	2783*/64-64-66	2811*/65-65-67
		2665**63-63-66	2763**68-70-72	2796**70-72-74	2829**71-74-74
54	2893	2721*/61-61-65	2815*/65-65-67	2845*/66-66-68	2874*/67-67-69
		2722**63-63-66	2823**69-72-73	2857**71-74-75	2890**73-75-76
52	2971	2786*/63-63-67	2884*/67-67-69	2915*/68-68-70	2945*/69-69-71
			2891**70-72-74	2925**76-76-77	2960**75-77-78
50	3047	2847*/63-65-68	2951*/68-68-71	2984*/69-69-72	3015*/70-70-73
			2957**71-73-75	2992**74-76-77	3028**77-79-80
48	3126	2905*/63-66-70	3020*/70-70-73	3054*/71-71-74	3086*/72-72-75
			3024**72-74-76	3060**75-76-78	3096**78-80-81
46	3203	2958*/63-68-72	3086*/72-72-75	3121*/73-73-76	3154*/74-74-77
			3088**72-73-76	3126**76-77-79	3163**78-80-81
44	3279	3010*/63-69-73	3148*/72-74-77	3186*/75-75-78	3221*/76-76-79
				3189**76-77-79	3229**79-80-82
42	3353	3058*/64-70-75	3203*/73-75-78	3248*/76-77-79	3286*/78-78-80
					3290**79-80-82
40	3429	3103*/64-72-76	3256*/73-77-80	3305*/76-78-81	3351*/79-79-82
38	3502	3145*/64-73-77	3307*/73-78-81	3358*/76-79-82	3407*/79-81-83
36	3571	3188*/64-74-78	3359*/73-79-82	3411*/76-80-84	3484*/79-81-83
34	3635	3226*/64-75-79	3405*/73-80-84	3482*/76-80-83	3534*/79-82-85
32	3666	3248*/65-75-80	3440*/73-80-84	3508*/76-81-84	3560*/79-82-85
30	3667	3255*/65-75-80	3450*/73-80-84	3514*/76-81-84	3566*/80-83-85
28	3667	3263*/65-76-80	3460*/74-80-84	3521*/77-81-84	3572*/80-83-86
26	3668	3270*/66-76-81	3469*/74-80-84	3527*/77-81-85	3578*/81-83-86
24	3669	3278*/66-76-81	3479*/74-80-84	3533*/78-82-85	3584*/81-83-86
22	3670	3286*/66-76-81	3487*/75-80-84	3539*/78-82-85	3589*/81-83-86
20	3670	3294*/67-77-81	3494*/75-80-84	3545*/79-82-85	3595*/82-84-86
18	3671	3302*/67-77-81	3500*/76-81-84	3551*/79-82-85	3601*/82-84-86
16	3672	3310*/67-77-81	3506*/76-81-84	3557*/80-82-85	3606*/83-84-86
14	3673	3318*/68-77-82	3512*/77-81-84	3563*/80-83-85	3612*/83-84-87
12	3674	3326*/68-78-82	3519*/77-81-84	3569*/81-83-86	3617*/84-84-87
10	3675	3335*/69-78-82	3525*/78-81-84	3575*/81-83-86	3622*/84-84-87
					3624**84-86-88
8	3675	3343*/69-78-82	3531*/78-82-85	3581*/82-83-86	3626*/84-84-87
					3630**85-86-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07R	59	990	0	108	1820	0	138	2040	0
	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07R OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
6	3676	3351*/69-78-82	3537*/79-82-85	3587*/82-83-86	3630*/85-85-87 3636**86-87-89
4	3677	3358*/70-78-83	3543*/79-82-85	3592*/83-83-86	3633*/85-85-87 3641**86-88-90
2	3677	3365*/70-79-83	3549*/80-82-85	3597*/83-84-86	3637*/85-85-87 3647**87-88-90
0	3677	3371*/71-79-83	3554*/80-82-85	3602*/84-84-86 3603**84-85-87	3640*/85-85-87 3653**87-89-91
-2	3677	3378*/71-79-83	3560*/81-82-85	3606*/84-84-86 3609**84-86-88	3643*/85-85-87 3659**88-89-91
-4	3678	3384*/72-79-83	3565*/81-83-85	3609*/84-84-87 3615**85-86-89	3647*/85-85-87 3665**88-90-91
-6	3678	3391*/72-79-83	3571*/82-83-86	3613*/84-84-87 3620**85-87-89	3650*/85-85-87 3670**89-90-92
-8	3678	3397*/73-80-83	3576*/82-83-86	3616*/84-84-87 3626**86-87-90	3653*/85-85-88 3676**89-91-93
-10	3678	3403*/73-80-84	3581*/83-83-86 3582**83-84-87	3619*/84-84-87 3632**86-88-90	3656*/85-85-88 3681**90-92-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07R	59	990	0	108	1820	0	138	2040	0
	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07RtxwC OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2699	2430*/50-52-56	2551*/56-56-59	2582*/57-57-60	2613*/59-59-61
			2554**59-59-62	2588**62-62-64	2622**63-63-65
58A	2757	2471*/51-53-57	2601*/58-58-61	2633*/59-59-62	2665*/60-60-63
			2603**60-60-62	2637**62-62-65	2671**64-64-66
56A	2824	2518*/51-55-59	2659*/60-60-63	2692*/61-61-64	2724*/62-62-64
				2694**63-63-66	2729**66-66-68
54	2893	2563F/52-56-60	2715*/61-61-64	2751*/62-62-65	2784*/64-64-66
				2752**64-64-67	2787**67-67-69
52	2971	2613F/53-57-62	2769*/61-63-66	2816*/64-64-67	2850*/65-65-68
					2853**67-67-70
50	3047	2657F/54-58-63	2820*/62-64-68	2871*/64-66-69	2916*/67-67-70
48	3126	2698F/54-59-64	2871*/62-65-69	2924*/65-67-71	2977*/67-69-72
46	3203	2736F/55-60-66	2918*/62-67-71	2973*/65-68-72	3028*/68-70-73
44	3279	2774F/55-61-67	2962F/63-68-72	3021*/65-70-73	3077*/68-71-75
42	3353	2812F/55-62-68	3002F/63-69-73	3068*/66-71-75	3125*/69-73-76
40	3429	2849F/56-63-69	3041F/64-70-74	3107F/66-72-76	3171*/69-74-78
38	3502	2882F/56-64-70	3077F/64-70-75	3144F/67-73-77	3213F/69-75-79
36	3571	2918F/57-65-71	3114F/64-71-76	3182F/67-74-78	3252F/70-76-80
34	3635	2948F/57-66-72	3147F/65-72-77	3216F/67-74-79	3287F/70-77-81
32	3666	2967F/57-66-73	3167F/65-73-78	3237F/68-75-80	3309F/70-77-81
30	3667	2975F/57-66-73	3176F/65-73-78	3246F/68-75-80	3319F/71-77-82
28	3667	2984F/58-67-73	3186F/66-73-78	3256F/68-75-80	3330F/71-78-82
26	3668	2992F/58-67-73	3195F/66-73-79	3266F/69-76-80	3341F/71-78-82
24	3669	3001F/58-67-74	3205F/66-74-79	3276F/69-76-81	3351F/72-78-82
22	3670	3010F/59-67-74	3214F/67-74-79	3286F/69-76-81	3362F/72-79-83
20	3670	3018F/59-68-74	3224F/67-74-79	3296F/70-77-81	3373F/72-79-83
18	3671	3027F/59-68-74	3234F/67-75-80	3307F/70-77-81	3383*/73-79-83
16	3672	3036F/59-68-75	3244F/68-75-80	3318F/70-77-82	3391*/73-79-83
14	3673	3045F/60-69-75	3254F/68-75-80	3328F/71-78-82	3400*/74-80-83
12	3674	3054F/60-69-75	3264F/68-76-80	3339F/71-78-82	3409*/74-80-84
10	3675	3063F/60-69-75	3274F/69-76-81	3351F/71-78-82	3423*/74-80-84
8	3675	3073F/61-69-76	3285F/69-76-81	3360*/72-78-83	3438*/75-80-84
6	3676	3082F/61-70-76	3295F/69-77-81	3369*/72-79-83	3452*/75-80-84
4	3677	3091F/61-70-76	3306F/70-77-81	3378*/73-79-83	3466*/75-80-84
2	3677	3101F/62-70-76	3317F/70-77-82	3387*/73-79-83	3480*/75-80-84
0	3677	3110F/62-71-77	3328F/70-78-82	3395*/73-79-83	3491*/76-80-84
-2	3677	3120F/62-71-77	3337*/71-78-82	3404*/74-80-84	3499*/76-81-84
-4	3678	3129F/63-71-77	3346*/71-78-82	3414*/74-80-84	3506*/77-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2745 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07RtxwC	59	990	0	108	1820	0	138	2040	0
	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07RtxwC OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3678	3139F/63-72-77	3355*/72-78-82	3429*/75-80-84	3512*/77-81-84

-8	3678	3149F/63-72-77	3363*/72-79-83	3443*/75-80-84	3519*/78-81-84

-10	3678	3159F/64-72-78	3372*/73-79-83	3457*/75-80-84	3525*/78-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2745 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

07RtxwC	59	990	0	108	1820	0	138	2040	0

	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25L OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2699	2723F/58-62-64	2890F/60-62-64	2948F/61-62-64	3007F/61-62-64
		2710**59-63-65	2778**69-72-73	2799**72-76-76	2815**74-79-79
58A	2757	2762F/59-63-65	2934F/61-63-65	2992F/62-63-65	3052F/62-63-65
		2759**59-64-65	2830**69-73-74	2850**72-77-77	2870**75-80-80
56A	2824	2803F/59-65-67	2984F/63-65-67	3043F/63-65-67	3104F/64-65-67
			2888**69-74-75	2911**73-77-78	2931**76-81-81
54	2893	2844F/60-66-68	3027F/64-67-69	3091F/65-67-69	3156F/65-67-69
			2947**69-75-76	2971**73-78-79	2993**76-81-82
52	2971	2890F/60-67-69	3075F/66-69-71	3140F/66-69-71	3206F/67-69-71
			3014**69-75-76	3039**73-78-79	3063**76-82-82
50	3047	2934F/61-68-71	3122F/67-72-74	3188F/68-72-74	3255F/68-72-74
			3079**70-76-77	3105**73-79-80	3130**76-82-83
48	3126	2978F/61-69-72	3169F/68-74-76	3236F/69-74-76	3305F/70-74-76
			3145**70-76-78	3171**73-79-81	3197**77-83-84
46	3203	3020F/62-70-73	3213F/70-76-78	3281F/71-76-78	3353F/71-76-78
			3208**70-76-78	3236**73-80-81	3263**77-83-84
44	3279	3061F/62-71-74	3257F/70-77-79	3327F/72-78-80	3400F/73-78-80
				3300**73-80-82	3329**77-84-85
42	3353	3102F/62-72-76	3302F/70-78-81	3374F/73-80-82	3482F/74-80-82
				3362**73-81-83	3392**77-84-86
40	3429	3142F/63-73-77	3346F/71-79-82	3425F/73-81-83	3528F/75-81-83
					3471**76-84-86
38	3502	3179F/63-74-78	3387F/71-80-83	3496F/73-81-83	3569F/74-81-84
					3532**76-85-86
36	3571	3218F/63-75-79	3445F/71-81-83	3538F/73-82-85	3611F/76-83-85
					3588**76-85-87
34	3635	3251F/64-75-80	3502F/71-81-84	3575F/74-83-86	3649F/77-85-87
					3642**76-86-88
32	3666	3271F/64-76-81	3524F/71-81-84	3597F/74-84-86	3672F/77-86-88
					3669**77-86-88
30	3667	3281F/64-76-81	3534F/71-82-85	3608F/74-84-86	3683F/77-86-88
					3674**77-86-89
28	3667	3291F/64-77-81	3545F/72-82-85	3619F/75-84-87	3694F/77-86-88
					3679**78-87-89
26	3668	3301F/65-77-81	3555F/72-82-85	3629F/75-85-87	3705F/77-86-88
					3685**78-87-89
24	3669	3311F/65-77-81	3566F/72-83-85	3640F/75-85-87	3716F/78-86-88
					3690**79-88-90
22	3670	3321F/65-77-82	3576F/73-83-86	3651F/76-85-88	3728F/78-86-88
					3696**79-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 483 M OF CLEARWAY AND 301 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

25L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25L

OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3670	3331F/66-78-82	3587F/73-83-86	3662F/76-86-88	3739F/78-86-88 3701**80-89-91
18	3671	3341F/66-78-82	3598F/73-84-86	3673F/76-86-88 3672**76-86-88	3751F/78-86-88 3707**80-89-91
16	3672	3351F/66-78-82	3609F/74-84-86	3685F/77-86-88 3678**77-86-89	3762F/78-86-88 3712**81-90-92
14	3673	3362F/67-79-83	3620F/74-84-87	3696F/77-86-88 3683**77-87-89	3774F/78-86-88 3718**81-91-92
12	3674	3372F/67-79-83	3631F/74-85-87	3708F/77-86-88 3689**78-87-89	3786F/78-86-88 3724**82-91-93
10	3675	3383F/67-79-83	3642F/75-85-87	3719F/77-86-88 3695**78-88-90	3787F/78-86-88 3730**82-92-93
8	3675	3393F/68-79-83	3653F/75-85-88	3731F/77-86-88 3700**79-89-90	3787F/78-86-88 3735**83-92-94
6	3676	3404F/68-80-84	3665F/76-86-88	3743F/78-86-88 3706**79-89-91	3787F/78-86-88 3741**83-93-94
4	3677	3418F/68-80-84	3676F/76-86-88	3755F/78-86-88 3712**80-90-91	3787F/79-86-88 3746**84-93-95
2	3677	3438F/68-80-84	3688F/77-86-88 3682**76-86-89	3766F/78-86-88 3717**80-90-92	3787F/79-86-88 3752**84-94-95
0	3677	3458F/68-80-84	3699F/77-86-88 3687**77-87-89	3779F/78-86-88 3723**81-91-92	3787F/79-86-88 3757**85-94-96
-2	3677	3478F/68-80-84	3711F/77-86-88 3693**78-88-90	3787F/78-86-88 3728**81-91-93	3787F/79-86-88 3762**85-95-96
-4	3678	3493F/69-80-84	3723F/77-86-88 3698**78-88-90	3787F/78-86-88 3734**82-92-93	3787F/79-86-88 3768**86-96-97
-6	3678	3504F/69-81-84	3735F/77-86-88 3704**79-89-90	3787F/78-86-88 3739**83-92-94	3787F/79-86-88 3773**87-96-97
-8	3678	3515F/69-81-84	3747F/77-86-88 3709**79-89-91	3787F/78-86-88 3745**83-93-94	3787F/79-86-88 3779**87-97-98
-10	3678	3526F/70-81-85	3759F/77-86-88 3715**80-90-91	3787F/78-86-88 3750**84-94-95	3787F/79-86-88 3784**88-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 483 M OF CLEARWAY AND 301 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
 RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
 25L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25LtxwF OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2699	2314F/44-48-52	2471F/51-54-57	2526F/54-56-59	2583F/57-58-60
58A	2757	2349F/45-49-54	2509F/52-55-58	2565F/55-57-60	2622F/57-59-61
56A	2824	2388F/45-50-55	2552F/53-56-60	2609F/56-58-61	2666F/58-60-63
54	2893	2428F/46-51-56	2597F/54-57-61	2654F/57-59-63	2712F/60-61-64
52	2971	2473F/47-52-58	2646F/55-58-63	2704F/58-60-64	2763F/61-62-66
50	3047	2517F/48-53-59	2695F/56-60-64	2753F/59-62-66	2813F/61-64-67
48	3126	2561F/49-54-61	2744F/57-61-66	2803F/60-63-67	2863F/62-65-69
46	3203	2601F/50-56-62	2789F/58-62-67	2850F/60-64-69	2911F/63-66-70
44	3279	2642F/51-57-63	2828F/59-63-68	2893F/61-65-70	2958F/64-67-72
42	3353	2679F/51-58-64	2866F/59-64-69	2932F/62-66-71	2999F/64-69-73
40	3429	2714F/52-58-66	2904F/59-65-71	2970F/62-67-72	3037F/65-69-74
38	3502	2746F/52-59-67	2938F/60-66-72	3005F/62-68-73	3073F/65-70-75
36	3571	2780F/52-60-68	2974F/60-67-73	3041F/63-69-75	3110F/65-71-76
34	3635	2809F/52-61-69	3005F/60-67-74	3073F/63-70-75	3143F/66-72-77
32	3666	2826F/53-61-69	3024F/61-68-74	3093F/63-70-76	3163F/66-72-78
30	3667	2834F/53-61-69	3033F/61-68-74	3102F/64-70-76	3173F/67-73-78
28	3667	2842F/53-62-69	3042F/61-69-75	3111F/64-71-77	3182F/67-73-78
26	3668	2851F/54-62-70	3051F/62-69-75	3121F/64-71-77	3192F/67-73-79
24	3669	2859F/54-62-70	3060F/62-69-75	3130F/65-71-77	3202F/68-74-79
22	3670	2867F/54-63-70	3069F/62-69-75	3140F/65-72-77	3212F/68-74-79
20	3670	2876F/54-63-70	3079F/63-70-76	3150F/65-72-77	3222F/68-74-79
18	3671	2884F/55-63-71	3088F/63-70-76	3159F/66-72-78	3232F/69-75-80
16	3672	2893F/55-63-71	3098F/63-70-76	3169F/66-73-78	3242F/69-75-80
14	3673	2901F/55-64-71	3107F/64-71-76	3179F/66-73-78	3253F/69-75-80
12	3674	2910F/56-64-71	3117F/64-71-77	3189F/67-73-79	3263F/70-76-80
10	3675	2919F/56-64-72	3127F/64-71-77	3199F/67-74-79	3274F/70-76-81
8	3675	2928F/56-65-72	3137F/65-72-77	3210F/67-74-79	3285F/70-76-81
6	3676	2937F/57-65-72	3147F/65-72-77	3220F/68-74-79	3296F/71-77-81
4	3677	2946F/57-65-72	3157F/65-72-78	3230F/68-75-80	3307F/71-77-81
2	3677	2955F/57-66-72	3167F/66-73-78	3241F/69-75-80	3319F/71-77-82
0	3677	2964F/58-66-73	3177F/66-73-78	3251F/69-75-80	3330F/72-78-82
-2	3677	2973F/58-66-73	3187F/66-73-78	3262F/69-76-80	3341F/72-78-82
-4	3678	2982F/58-66-73	3197F/67-74-79	3273F/70-76-81	3353F/72-78-82
-6	3678	2991F/59-67-73	3208F/67-74-79	3284F/70-76-81	3365F/73-79-83
-8	3678	3001F/59-67-74	3218F/67-74-79	3295F/70-77-81	3376F/73-79-83
-10	3678	3010F/59-67-74	3229F/68-75-80	3307F/71-77-81	3388F/74-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2440 M LONG WITH 483 M OF CLEARWAY AND 301 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

25LtxwF NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 100 FT

RUNWAY 25R OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2699	2581*/57-57-60	2656*/60-60-62	2680*/61-61-63	2702*/61-62-64
			2683**64-66-67	2715**66-69-70	2748**69-72-73
58A	2757	2627*/58-59-62	2712*/62-62-64	2736*/63-63-65	2758*/62-63-65
			2733**65-67-68	2766**67-70-71	2799**70-73-73
56A	2824	2680*/59-60-63	2774*/64-64-66	2799*/64-64-67	2823*/65-65-67
			2791**66-67-69	2825**68-70-72	2858**71-73-74
54	2893	2727*/59-62-65	2838*/65-65-68	2863*/66-66-68	2887*/67-67-69
			2851**68-68-70	2886**71-71-73	2919**74-74-75
52	2971	2778*/60-63-66	2910*/67-67-70	2935*/68-68-71	2961*/69-69-71
			2919**68-69-71	2954**70-72-74	2989**73-75-77
50	3047	2827*/60-64-68	2980*/68-69-72	3007*/70-70-73	3033*/71-71-73
			2981**68-70-72	3019**71-73-75	3057**74-76-78
48	3126	2876*/60-65-69	3038*/68-71-74	3081*/71-72-75	3107*/73-73-75
				3084**71-73-76	3123**74-77-78
46	3203	2922*/60-67-71	3087*/69-72-75	3143*/71-74-76	3179*/75-75-77
					3186**75-77-79
44	3279	2967*/61-68-72	3136*/69-73-76	3194*/72-75-78	3245*/75-77-79
					3247**75-77-80
42	3353	3011*/61-69-73	3184*/69-75-78	3242*/72-76-79	3302*/75-78-81
40	3429	3054*/61-70-75	3230*/69-76-79	3290*/72-78-81	3353*/75-79-82
38	3502	3094*/61-71-76	3272*/70-77-80	3336*/73-79-82	3400*/75-80-83
36	3571	3135*/61-72-77	3318*/70-78-81	3383*/73-80-83	3473*/75-81-83
34	3635	3169F/62-73-78	3359*/70-79-82	3435*/73-80-84	3521*/75-81-84
32	3666	3189F/62-73-78	3383*/70-79-83	3475*/73-80-84	3544*/76-82-85
30	3667	3198F/62-74-79	3391*/71-79-83	3488*/73-80-84	3553*/76-82-85
28	3667	3207F/62-74-79	3400*/71-80-83	3497*/73-81-84	3562*/76-83-85
26	3668	3216*/63-74-79	3409*/71-80-84	3505*/74-81-84	3570*/77-83-86
24	3669	3224*/63-74-79	3423*/72-80-84	3514*/74-81-84	3579*/77-83-86
22	3670	3232*/63-75-80	3438*/72-80-84	3523*/74-81-84	3588*/77-83-86
20	3670	3240*/64-75-80	3452*/72-80-84	3531*/75-82-85	3597*/78-84-86
18	3671	3248*/64-75-80	3467*/72-80-84	3540*/75-82-85	3605*/78-84-86
16	3672	3257*/65-75-80	3482*/73-80-84	3549*/76-82-85	3614*/79-84-87
14	3673	3265*/65-76-80	3493*/73-80-84	3558*/76-82-85	3623*/79-84-87
12	3674	3273*/65-76-81	3502*/73-81-84	3567*/76-83-85	3630*/80-85-87
10	3675	3282*/66-76-81	3510*/74-81-84	3576*/77-83-86	3635*/80-85-87
					3637**80-85-88
8	3675	3291*/66-76-81	3519*/74-81-84	3585*/77-83-86	3639*/81-85-87
					3642**81-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 450 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 580 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE -0.20 PERCENT FOR TODA AND -0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	46	860	0	126	3075	0	190	4550	0
	200	4785	0	293	4940	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25R OPKC

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
6	3676	3299*/66-77-81	3528*/75-81-85	3594*/78-83-86	3643*/81-85-87 3648**81-86-89
4	3677	3308*/67-77-81	3537*/75-82-85	3603*/78-84-86	3647*/82-85-87 3654**82-87-89
2	3677	3317*/67-77-82	3546*/76-82-85	3611*/79-84-87	3651*/82-85-88 3659**82-88-90
0	3677	3326*/68-77-82	3555*/76-82-85	3615*/79-84-87 3616**79-85-87	3655*/83-85-88 3665**83-88-90
-2	3677	3334*/68-78-82	3563*/76-83-85	3618*/80-84-87 3622**80-85-88	3658*/84-85-88 3671**83-89-91
-4	3678	3343*/68-78-82	3572*/77-83-86	3622*/80-84-87 3627**80-86-88	3662*/84-85-88 3676**84-89-91
-6	3678	3352*/69-78-82	3581*/77-83-86	3626*/81-84-87 3633**81-86-89	3665*/85-86-88 3682**84-90-92
-8	3678	3361*/69-79-83	3589*/78-83-86	3630*/82-85-87 3638**81-87-89	3668*/85-86-88 3688**85-91-92
-10	3678	3370*/70-79-83	3593*/78-83-86 3595**78-84-87	3633*/82-85-87 3644**82-88-90	3670*/86-86-88 3693**86-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 450 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 580 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE -0.20 PERCENT FOR TODA AND -0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	46	860	0	126	3075	0	190	4550	0
	200	4785	0	293	4940	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 18L OPLA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2641	2496*/54-55-58	2626*/59-59-61	2658*/59-60-62	2691*/60-60-62
				2659**62-62-64	2685**65-66-67
58A	2697	2538*/55-56-59	2671*/60-61-63	2706*/61-62-64	2740*/61-62-64
				2709**62-63-65	2735**65-67-68
56A	2762	2587*/56-57-61	2723*/62-62-64	2762*/63-63-65	2794*/63-63-65
				2765**64-64-66	2792**66-68-69
54A	2828	2636*/58-59-62	2774*/63-64-66	2820*/65-65-67	2847*/64-65-67
					2851**67-68-70
52	2897	2685*/59-60-64	2828*/64-65-68	2875*/67-67-69	2903*/65-67-69
					2912**69-69-71
50	2971	2731*/59-61-65	2885*/66-67-69	2933*/68-68-70	2971*/68-69-71
					2977**70-70-72
48	3049	2778*/59-63-66	2943*/67-68-71	2993*/69-70-72	3043*/71-71-74
46	3127	2822*/60-64-68	2992*/68-69-72	3049*/70-71-74	3102*/73-73-75
44	3202	2864*/60-65-69	3037*/68-71-74	3097*/71-72-75	3155*/73-74-77
42	3272	2904*/60-66-70	3081*/68-72-75	3141*/71-74-77	3202*/74-75-78
40	3346	2946*/61-67-72	3125*/69-73-76	3187*/71-75-78	3249*/74-77-79
38	3415	2983*/61-68-73	3165*/69-74-77	3228*/72-76-79	3292*/74-78-81
36	3492	3021*/61-69-74	3207*/69-75-79	3270*/72-77-80	3337*/75-79-82
34	3553	3055*/61-70-75	3243*/70-76-80	3309*/72-78-81	3377*/75-80-83
32	3614	3088*/62-70-76	3278*/70-76-81	3347*/73-78-82	3420*/75-80-84
30	3629	3101*/62-71-76	3294*/70-77-81	3362*/73-79-83	3448*/75-80-84
28	3630	3109*/62-71-76	3303*/71-77-81	3372*/73-79-83	3465*/76-80-84
26	3630	3117*/63-71-77	3312*/71-77-81	3381*/74-79-83	3482*/76-80-83
24	3630	3126*/63-71-77	3321*/71-78-82	3390*/74-80-83	3493*/76-81-84
22	3631	3134*/63-72-77	3330*/72-78-82	3400*/74-80-83	3503*/76-81-84
20	3631	3142*/64-72-77	3340*/72-78-82	3410*/75-80-84	3512*/77-81-84
18	3632	3151*/64-72-77	3349*/72-78-82	3426*/75-80-84	3521*/77-81-84
16	3632	3159*/64-73-78	3359*/73-79-83	3442*/75-80-84	3531*/78-82-85
14	3632	3167*/65-73-78	3368*/73-79-83	3459*/75-80-84	3540*/78-82-85
12	3633	3176*/65-73-78	3378*/73-79-83	3477*/76-80-84	3550*/78-82-85
10	3634	3185*/65-73-78	3388*/74-79-83	3491*/76-81-84	3559*/79-83-85
8	3634	3194*/66-74-79	3398*/74-80-83	3500*/76-81-84	3569*/79-83-86
6	3635	3203*/66-74-79	3407*/75-80-84	3510*/77-81-84	3579*/80-83-86
4	3635	3212*/66-74-79	3422*/75-80-84	3520*/77-81-84	3588*/80-84-86
2	3635	3220*/67-74-79	3439*/75-80-84	3529*/78-82-85	3598*/80-84-86
0	3635	3229*/67-75-79	3456*/75-80-84	3539*/78-82-85	3608*/81-84-86
-2	3635	3238*/68-75-80	3473*/76-80-84	3548*/78-82-85	3618*/81-84-87
-4	3635	3247*/68-75-80	3489*/76-80-84	3558*/79-83-85	3627*/82-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 240 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18L	25	244	0	23	440	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 18L OPLA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-6	3635	3256*/68-76-80	3499*/76-81-84	3568*/79-83-85	3635*/82-85-87
					3636**82-85-87
-8	3635	3265*/69-76-80	3508*/77-81-84	3577*/80-83-86	3635*/81-85-87
					3642**83-86-88
-10	3635	3275*/69-76-81	3518*/77-81-84	3587*/80-83-86	3635*/81-85-87
					3648**83-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 240 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18L	25	244	0	23	440	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 18LtxwU OPLA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2641	2133*/38-41-47	2292*/47-47-52	2343*/49-49-53	2390*/51-51-55
58A	2697	2166*/38-42-48	2328*/47-48-53	2382*/50-50-54	2430*/52-52-56
56A	2762	2204*/39-43-49	2369*/48-49-54	2424*/51-51-56	2476*/53-53-57
54A	2828	2241*/40-44-51	2409*/49-51-56	2466*/52-53-57	2521*/55-55-59
52	2897	2281*/41-45-52	2452*/50-52-57	2510*/53-54-59	2568*/56-56-60
50	2971	2323*/42-47-53	2497*/51-53-58	2556*/54-55-60	2615*/57-57-62
48	3049	2367*/43-48-55	2543*/52-54-60	2603*/55-56-62	2664*/58-59-63
46	3127	2407*/43-49-56	2587*/53-55-61	2649*/56-58-63	2710*/59-60-65
44	3202	2446*/44-50-58	2629*/53-57-63	2692*/56-59-64	2753*/59-61-66
42	3272	2485*/45-51-59	2670*/54-58-64	2734*/57-60-66	2794*/60-62-67
40	3346	2525*/46-52-60	2712*/55-59-65	2774*/58-61-67	2835*/60-63-69
38	3415	2560*/46-53-61	2747*/56-60-66	2808*/58-62-68	2871*/61-64-70
36	3492	2597*/47-54-62	2783*/56-61-68	2845*/59-63-69	2908*/61-65-71
34	3553	2630*/48-55-64	2814*/56-61-69	2877*/59-64-70	2941*/62-66-72
32	3614	2661*/48-56-64	2844*/56-62-69	2908*/59-64-71	2973*/62-66-73
30	3629	2673*/49-56-65	2857*/57-62-70	2921*/60-65-72	2986*/62-67-73
28	3630	2680*/49-56-65	2865*/57-63-70	2929*/60-65-72	2994*/63-67-73
26	3630	2687*/49-57-65	2873*/57-63-70	2937*/60-65-72	3003*/63-67-74
24	3631	2694*/50-57-65	2880*/58-63-70	2945*/60-65-72	3011*/63-68-74
22	3631	2701*/50-57-66	2888*/58-64-71	2954*/61-66-72	3020*/64-68-74
20	3631	2709*/50-57-66	2897*/58-64-71	2962*/61-66-73	3028*/64-68-74
18	3632	2716*/50-58-66	2905*/59-64-71	2970*/62-66-73	3037*/64-69-75
16	3632	2724*/51-58-66	2913*/59-64-71	2979*/62-67-73	3046*/65-69-75
14	3632	2731*/51-58-66	2921*/59-65-72	2987*/62-67-73	3055*/65-69-75
12	3633	2739*/51-58-67	2930*/60-65-72	2996*/63-67-73	3063*/65-69-75
10	3634	2746*/52-59-67	2938*/60-65-72	3005*/63-67-74	3073*/66-70-75
8	3634	2754*/52-59-67	2947*/60-66-72	3014*/63-68-74	3082*/66-70-76
6	3635	2762*/52-59-67	2956*/61-66-72	3023*/64-68-74	3091*/66-70-76
4	3635	2770*/53-59-68	2964*/61-66-73	3032*/64-68-74	3100*/67-71-76
2	3635	2778*/53-60-68	2973*/61-66-73	3041*/64-69-75	3109*/67-71-76
0	3635	2786*/53-60-68	2982*/62-67-73	3049*/65-69-75	3118*/68-71-77
-2	3635	2794*/54-60-68	2991*/62-67-73	3059*/65-69-75	3128*/68-72-77
-4	3635	2802*/54-61-68	2999*/63-67-74	3068*/65-70-75	3137*/68-72-77
-6	3635	2810*/54-61-69	3008*/63-68-74	3077*/66-70-76	3147*/69-72-77
-8	3635	2818*/55-61-69	3017*/63-68-74	3086*/66-70-76	3156*/69-72-78
-10	3635	2827*/55-61-69	3026*/64-68-74	3095*/67-70-76	3166*/70-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2390 M LONG WITH 240 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18LtxwU	25	244	0	23	440	0			

ENG-OUT PROCEDURE:

NONE

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*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2641	2389F/47-51-55	2549F/55-57-59	2603F/58-59-61	2659F/60-60-62
					2649**60-61-63
58A	2697	2425F/48-52-56	2588F/56-58-60	2643F/59-60-62	2699F/61-62-64
56A	2762	2467F/49-53-57	2632F/57-59-62	2688F/60-61-63	2745F/62-63-65
54A	2828	2507F/50-54-58	2677F/58-60-63	2733F/61-62-65	2791F/63-64-66
52	2897	2550F/51-55-60	2724F/59-61-65	2781F/61-63-66	2839F/64-65-68
50	2971	2595F/52-57-61	2772F/59-63-66	2831F/62-65-68	2891F/64-67-69
48	3049	2640F/53-58-63	2816F/60-64-68	2878F/62-66-69	2941F/65-68-71
46	3127	2679F/53-59-64	2858F/60-65-69	2921F/63-67-70	2985F/65-69-72
44	3202	2717F/53-60-65	2899F/61-66-70	2962F/63-68-72	3026F/66-70-73
42	3272	2754F/54-61-66	2938F/61-67-71	3001F/64-69-73	3067F/66-71-75
40	3346	2792F/54-62-68	2978F/62-68-72	3042F/64-70-74	3108F/67-72-76
38	3415	2825F/54-62-69	3013F/62-69-74	3079F/65-71-75	3146F/67-73-77
36	3492	2860F/55-63-70	3051F/63-70-75	3118F/65-72-76	3185F/68-74-78
34	3553	2891F/55-64-71	3084F/63-70-76	3151F/66-73-77	3220F/68-75-79
32	3614	2920F/55-65-71	3116F/63-71-77	3184F/66-73-78	3253F/69-76-80
30	3629	2932F/56-65-72	3130F/64-72-77	3198F/66-74-79	3268F/69-76-80
28	3630	2941F/56-65-72	3139F/64-72-77	3207F/67-74-79	3277F/69-76-81
26	3630	2949F/56-66-72	3148F/64-72-77	3217F/67-74-79	3288F/70-77-81
24	3631	2957F/56-66-72	3157F/64-72-78	3227F/67-75-79	3298F/70-77-81
22	3631	2966F/57-66-73	3166F/65-73-78	3236F/68-75-80	3308F/70-77-81
20	3631	2975F/57-66-73	3176F/65-73-78	3246F/68-75-80	3319F/71-78-82
18	3632	2983F/57-67-73	3185F/65-73-78	3256F/68-76-80	3329F/71-78-82
16	3632	2992F/58-67-73	3195F/66-74-79	3265F/69-76-80	3340F/71-78-82
14	3632	3001F/58-67-74	3205F/66-74-79	3275F/69-76-81	3351F/72-78-82
12	3633	3010F/58-68-74	3214F/66-74-79	3286F/69-77-81	3362F/72-79-83
10	3634	3019F/59-68-74	3224F/67-75-79	3296F/70-77-81	3373F/72-79-83
8	3634	3028F/59-68-74	3234F/67-75-80	3307F/70-77-81	3384F/73-79-83
6	3635	3037F/59-69-75	3245F/68-75-80	3318F/70-77-82	3395F/73-80-83
4	3635	3046F/60-69-75	3255F/68-76-80	3329F/71-78-82	3406F/73-80-84
2	3635	3056F/60-69-75	3265F/68-76-80	3340F/71-78-82	3424F/74-80-84
0	3635	3065F/60-69-75	3275F/69-76-81	3351F/71-78-82	3445F/74-80-84
-2	3635	3074F/61-70-76	3285F/69-77-81	3362F/72-79-83	3467F/74-80-84
-4	3635	3084F/61-70-76	3296F/69-77-81	3373F/72-79-83	3488F/74-80-84
-6	3635	3093F/61-70-76	3307F/70-77-81	3385F/72-79-83	3500F/74-81-84
-8	3635	3103F/62-71-76	3318F/70-77-82	3396F/73-80-83	3511F/75-81-84
-10	3635	3112F/62-71-77	3329F/70-78-82	3408F/73-80-84	3523F/75-82-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 274 M OF STOPWAY
RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
18R NONE

ENG-OUT PROCEDURE:
NONE

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*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2641	2372F/47-50-54	2544F/55-56-59	2598F/58-58-61	2654F/60-60-62
					2647**60-61-62
58A	2697	2407F/48-51-55	2582F/56-58-60	2637F/59-59-62	2694F/61-61-63
56A	2762	2448F/48-52-57	2627F/57-59-62	2683F/60-61-63	2740F/62-63-65
54A	2828	2489F/49-53-58	2670F/58-60-63	2728F/60-62-65	2785F/63-64-66
52	2897	2531F/50-55-59	2712F/58-61-64	2771F/61-63-66	2832F/63-65-68
50	2971	2576F/51-56-61	2754F/59-62-66	2815F/61-64-67	2876F/64-66-69
48	3049	2623F/52-57-62	2799F/60-63-67	2860F/62-65-69	2923F/65-67-70
46	3127	2662F/53-58-63	2840F/60-64-68	2902F/63-66-70	2966F/65-69-72
44	3202	2700F/53-59-65	2880F/61-65-70	2943F/63-67-71	3007F/66-70-73
42	3272	2736F/53-60-66	2919F/61-66-71	2983F/64-68-72	3048F/66-71-74
40	3346	2774F/54-61-67	2959F/61-67-72	3024F/64-69-74	3089F/67-72-75
38	3415	2808F/54-62-68	2995F/62-68-73	3060F/64-70-75	3126F/67-72-76
36	3492	2843F/54-63-69	3032F/62-69-74	3099F/65-71-76	3166F/68-73-78
34	3553	2874F/55-63-70	3065F/63-70-75	3132F/65-72-77	3200F/68-74-79
32	3614	2903F/55-64-71	3097F/63-71-76	3164F/66-73-78	3233F/68-75-80
30	3629	2916F/55-64-71	3111F/63-71-76	3179F/66-73-78	3248F/69-75-80
28	3630	2924F/55-65-72	3120F/64-71-77	3188F/66-73-78	3258F/69-76-80
26	3630	2932F/56-65-72	3129F/64-72-77	3197F/67-74-79	3267F/69-76-80
24	3631	2940F/56-65-72	3138F/64-72-77	3207F/67-74-79	3277F/70-76-81
22	3631	2949F/56-66-72	3147F/64-72-77	3216F/67-74-79	3287F/70-77-81
20	3631	2957F/57-66-72	3156F/65-72-78	3226F/68-75-79	3298F/70-77-81
18	3632	2966F/57-66-73	3166F/65-73-78	3236F/68-75-80	3308F/71-77-81
16	3632	2974F/57-66-73	3175F/65-73-78	3245F/68-75-80	3319F/71-78-82
14	3632	2983F/58-67-73	3185F/66-73-78	3255F/69-76-80	3329F/71-78-82
12	3633	2992F/58-67-73	3195F/66-74-79	3265F/69-76-80	3340F/72-78-82
10	3634	3001F/58-67-74	3205F/67-74-79	3275F/69-76-81	3351F/72-78-82
8	3634	3010F/59-68-74	3215F/67-74-79	3286F/70-77-81	3362F/72-79-83
6	3635	3019F/59-68-74	3225F/67-75-79	3297F/70-77-81	3373F/73-79-83
4	3635	3028F/59-68-74	3234F/68-75-80	3308F/70-77-81	3385F/73-79-83
2	3635	3037F/60-69-75	3244F/68-75-80	3318F/71-77-82	3396F/73-80-83
0	3635	3046F/60-69-75	3255F/68-76-80	3329F/71-78-82	3407F/74-80-84
-2	3635	3055F/60-69-75	3265F/69-76-80	3340F/71-78-82	3426F/74-80-84
-4	3635	3064F/61-69-75	3275F/69-76-81	3352F/72-78-82	3448F/74-80-84
-6	3635	3074F/61-70-76	3286F/69-77-81	3363F/72-79-83	3470F/74-80-84
-8	3635	3083F/61-70-76	3297F/70-77-81	3374F/73-79-83	3490F/74-81-84
-10	3635	3093F/62-70-76	3308F/70-77-81	3386F/73-79-83	3501F/75-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 244 M OF CLEARWAY AND 244 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

36L NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 712 FT

RUNWAY 36R

OPLA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2641	2512*/55-55-58	2621*/59-59-61	2651*/59-60-62	2681*/60-60-62
				2656**62-62-64	2686**65-66-67
58A	2697	2558*/57-57-60	2670*/60-61-63	2701*/61-62-64	2731*/61-62-64
				2705**62-63-64	2736**66-67-68
56A	2762	2611*/57-58-61	2725*/62-62-64	2762*/63-63-65	2788*/63-63-65
					2793**67-68-69
54A	2828	2658*/58-59-63	2780*/64-64-66	2818*/65-65-67	2844*/64-65-67
					2852**68-69-70
52	2897	2704*/58-61-64	2838*/65-65-68	2877*/66-67-69	2902*/66-67-69
					2913**69-69-71
50	2971	2753*/58-62-66	2899*/66-67-70	2939*/68-68-71	2971*/68-69-71
					2978**70-70-72
48	3049	2803*/59-63-67	2955*/67-69-71	3003*/70-70-73	3045*/71-72-74
46	3127	2851*/59-65-69	3007*/67-70-73	3059*/70-72-74	3109*/73-73-75
44	3202	2896*/59-66-70	3057*/67-71-74	3110*/70-73-76	3163*/73-75-77
42	3272	2939*/59-67-71	3103*/68-72-76	3158*/70-74-77	3213*/73-76-78
40	3346	2984*/60-68-73	3151*/68-74-77	3208*/71-75-78	3263*/74-77-80
38	3415	3024*/60-69-74	3194*/68-75-78	3252*/71-76-80	3311*/74-78-81
36	3492	3065*/60-70-75	3238*/69-76-79	3298*/71-78-81	3360*/74-79-82
34	3553	3101*/60-71-76	3277*/69-77-81	3340*/72-78-82	3403*/74-80-83
32	3614	3136*/60-72-77	3317*/69-78-82	3380*/72-79-83	3466*/74-80-84
30	3629	3150*/61-72-77	3332*/69-78-82	3396*/72-80-83	3490*/74-81-84
28	3630	3157*/61-72-78	3340*/70-78-82	3404*/72-80-84	3498*/75-81-84
26	3630	3165*/61-73-78	3349*/70-78-82	3414*/73-80-84	3506*/75-81-84
24	3630	3172*/62-73-78	3357*/70-79-82	3428*/73-80-84	3514*/76-81-84
22	3631	3180*/62-73-78	3365*/71-79-83	3442*/73-80-84	3522*/76-82-84
20	3631	3188*/62-73-78	3374*/71-79-83	3456*/74-80-84	3530*/76-82-85
18	3632	3195*/63-74-79	3382*/71-79-83	3469*/74-80-84	3538*/77-82-85
16	3632	3203*/63-74-79	3391*/72-80-83	3483*/74-80-83	3546*/77-82-85
14	3632	3211*/63-74-79	3399*/72-80-83	3493*/75-81-84	3554*/78-82-85
12	3633	3219*/64-74-79	3408*/73-80-84	3501*/75-81-84	3563*/78-83-85
10	3634	3227*/64-75-79	3420*/73-80-84	3509*/75-81-84	3571*/78-83-86
8	3634	3235*/65-75-80	3434*/73-80-84	3517*/76-81-84	3579*/79-83-86
6	3635	3243*/65-75-80	3448*/74-80-84	3526*/76-82-84	3588*/79-83-86
4	3635	3251*/65-75-80	3462*/74-80-84	3534*/77-82-85	3596*/80-84-86
2	3635	3259*/66-76-80	3476*/74-80-84	3542*/77-82-85	3604*/80-84-86
0	3635	3267*/66-76-80	3488*/74-80-84	3550*/78-82-85	3612*/81-84-87
-2	3635	3275*/67-76-81	3496*/75-81-84	3559*/78-83-85	3620*/81-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 305 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36R	36	620	0	35	790	0	53	800	0
	54	990	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 36R OPLA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-4	3635	3283*/67-76-81	3505*/75-81-84	3567*/79-83-85	3628*/82-85-87
-6	3635	3291*/67-77-81	3513*/76-81-84	3575*/79-83-86	3635*/82-85-87
-8	3635	3300*/68-77-81	3521*/76-81-84	3583*/79-83-86	3635*/81-85-87
					3642**83-86-88
-10	3635	3308*/68-77-81	3529*/77-82-85	3591*/80-84-86	3635*/81-85-87
					3648**83-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 305 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36R	36	620	0	35	790	0	53	800	0
	54	990	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 36RtxwT OPLA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2641	2184F/36-43-48	2344*/45-49-53	2395*/48-51-55	2446*/51-53-56
58A	2697	2216F/37-44-50	2382*/46-50-55	2434*/49-52-56	2486*/52-54-58
56A	2762	2253F/38-45-51	2426*/47-52-56	2479*/50-53-57	2532*/53-55-59
54A	2828	2290F/39-46-52	2468*/47-53-57	2523*/50-55-59	2578*/54-57-60
52	2897	2329F/39-47-53	2511F/48-54-59	2569*/51-56-60	2625*/54-58-62
50	2971	2370F/40-48-55	2555F/49-55-60	2617*/52-57-62	2675*/55-59-63
48	3049	2413F/41-49-56	2600F/50-56-62	2665F/53-59-63	2726*/56-61-65
46	3127	2453F/42-51-58	2643F/51-57-63	2709F/54-60-65	2772*/57-62-67
44	3202	2492F/43-52-59	2684F/52-58-64	2750F/55-61-66	2813F/57-63-68
42	3272	2529F/44-53-60	2724F/53-60-66	2788F/55-62-67	2851F/58-64-69
40	3346	2569F/44-54-61	2763F/53-61-67	2826F/56-63-68	2891F/59-65-70
38	3415	2604F/45-55-62	2796F/54-61-68	2860F/56-64-69	2926F/59-66-71
36	3492	2641F/46-56-64	2831F/54-62-69	2896F/57-64-71	2962F/60-67-72
34	3553	2673F/47-56-65	2862F/55-63-70	2927F/57-65-72	2994F/60-67-73
32	3614	2701F/47-57-66	2891F/55-64-71	2957F/58-66-72	3025F/60-68-74
30	3629	2713F/47-57-66	2904F/55-64-71	2971F/58-66-73	3039F/61-69-75
28	3630	2720F/47-58-66	2912F/55-64-71	2979F/58-67-73	3048F/61-69-75
26	3630	2728F/48-58-66	2921F/56-65-72	2988F/59-67-73	3057F/61-69-75
24	3631	2736F/48-58-67	2929F/56-65-72	2997F/59-67-74	3066F/62-70-75
22	3631	2744F/48-59-67	2938F/56-65-72	3006F/59-68-74	3075F/62-70-76
20	3631	2752F/49-59-67	2947F/57-66-72	3015F/59-68-74	3085F/62-70-76
18	3632	2760F/49-59-67	2956F/57-66-72	3024F/60-68-74	3094F/63-70-76
16	3632	2768F/49-59-67	2965F/57-66-73	3034F/60-68-74	3104F/63-71-76
14	3632	2776F/49-60-68	2974F/58-66-73	3043F/60-69-75	3113F/63-71-77
12	3633	2784F/50-60-68	2983F/58-67-73	3052F/61-69-75	3123F/64-71-77
10	3634	2793F/50-60-68	2992F/58-67-73	3062F/61-69-75	3133F/64-72-77
8	3634	2801F/50-61-68	3002F/59-67-74	3072F/61-70-75	3143F/64-72-77
6	3635	2809F/51-61-69	3011F/59-68-74	3081F/62-70-76	3154F/65-72-78
4	3635	2818F/51-61-69	3021F/59-68-74	3091F/62-70-76	3164F/65-73-78
2	3635	2826F/51-61-69	3030F/60-68-74	3101F/62-71-76	3174F/65-73-78
0	3635	2835F/52-62-69	3040F/60-69-75	3111F/63-71-76	3184F/66-73-78
-2	3635	2844F/52-62-69	3049F/60-69-75	3121F/63-71-77	3195F/66-74-79
-4	3635	2852F/52-62-70	3059F/61-69-75	3131F/64-72-77	3205F/66-74-79
-6	3635	2861F/53-63-70	3069F/61-70-75	3142F/64-72-77	3215*/67-74-79
-8	3635	2870F/53-63-70	3079F/61-70-76	3152F/64-72-78	3224*/67-75-79
-10	3635	2879F/53-63-70	3089F/62-70-76	3162F/65-73-78	3234*/68-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2379 M LONG WITH 305 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36RtxwT	36	620	0	35	790	0	53	800	0
	54	990	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 403 FT

RUNWAY 18

OPMT

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2670	2583F/54-58-60	2753F/60-61-63	2812F/60-61-63	2871F/60-61-63
			2707**62-66-67	2731**65-69-70	2754**69-73-73
58A	2727	2620F/54-59-61	2790F/61-62-64	2849F/62-62-64	2909F/62-62-64
			2755**62-66-68	2779**66-70-71	2803**69-73-74
56A	2793	2660F/55-60-63	2832F/62-64-66	2892F/63-64-66	2953F/63-64-66
			2810**63-67-68	2835**66-70-71	2859**69-74-74
54A	2859	2699F/55-61-64	2873F/63-66-68	2934F/64-66-68	2996F/65-66-68
			2866**63-67-69	2891**66-71-72	2916**69-74-75
52	2934	2742F/56-62-65	2919F/63-68-70	2980F/66-68-70	3043F/66-68-70
				2954**66-71-73	2981**70-75-76
50	3009	2785F/56-63-67	2965F/64-69-71	3027F/67-70-73	3091F/68-70-73
				3017**66-71-73	3044**70-75-76
48	3089	2830F/57-64-68	3012F/64-70-73	3075F/67-72-74	3139F/69-73-75
					3111**70-75-77
46	3166	2871F/57-65-69	3056F/65-71-74	3119F/67-73-76	3184F/70-75-77
					3174**70-76-78
44	3241	2911F/57-66-70	3098F/65-72-75	3163F/68-74-77	3229F/70-76-79
42	3314	2952F/58-67-72	3141F/66-73-77	3206F/68-75-78	3273F/71-78-80
40	3386	2991F/58-68-73	3182F/66-74-78	3249F/69-76-79	3318F/71-79-81
38	3463	3027F/58-69-74	3220F/66-75-79	3288F/69-77-81	3360F/72-79-82
36	3531	3065F/59-70-75	3260F/67-76-80	3331F/69-78-82	3404F/72-80-83
34	3594	3098F/59-71-76	3297F/67-77-81	3369F/70-79-83	3470F/72-81-83
32	3647	3126F/59-71-77	3328F/67-78-82	3401F/70-80-83	3511F/72-81-84
30	3648	3135F/60-72-77	3338F/68-78-82	3412F/70-80-84	3521F/72-81-84
28	3649	3143F/60-72-77	3348F/68-78-82	3431F/71-80-84	3531F/73-82-85
26	3649	3152F/60-72-78	3358F/68-79-83	3450F/71-80-84	3541F/73-82-85
24	3650	3161F/60-72-78	3369F/69-79-83	3470F/71-80-84	3552F/73-82-85
22	3651	3170F/61-73-78	3379F/69-79-83	3489F/71-80-84	3562F/74-83-85
20	3651	3179F/61-73-78	3389F/69-79-83	3499F/71-81-84	3573F/74-83-86
18	3652	3188F/61-73-78	3400F/70-80-83	3510F/72-81-84	3583F/74-83-86
16	3652	3197F/62-74-79	3410F/70-80-84	3520F/72-81-84	3594F/75-84-86
14	3653	3207F/62-74-79	3430F/70-80-84	3531F/72-82-85	3605F/75-84-86
12	3654	3216F/62-74-79	3450F/70-80-84	3542F/73-82-85	3616F/76-84-87
10	3655	3226F/63-75-79	3470F/70-80-84	3552F/73-82-85	3627F/76-85-87
8	3655	3236F/63-75-80	3489F/71-80-84	3563F/73-83-85	3639F/76-85-87
6	3656	3245F/63-75-80	3500F/71-81-84	3574F/74-83-86	3650F/77-85-87
4	3656	3255F/64-75-80	3511F/71-81-84	3585F/74-83-86	3662F/77-85-88
					3659**77-86-88
2	3657	3265F/64-76-80	3522F/72-81-84	3596F/74-84-86	3673F/78-85-88
					3665**78-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 160 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

18 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 403 FT

RUNWAY 18

OPMT

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
0	3657	3274F/64-76-81	3532F/72-82-85	3608F/75-84-86	3685F/78-85-88 3670**78-87-89
-2	3657	3284F/65-76-81	3543F/72-82-85	3619F/75-84-87	3696F/79-85-88 3676**79-87-89
-4	3657	3295F/65-77-81	3554F/73-82-85	3630F/76-85-87	3708F/79-85-88 3681**79-88-90
-6	3657	3305F/65-77-81	3565F/73-83-85	3642F/76-85-87	3720F/79-85-88 3687**80-89-90
-8	3658	3316F/66-77-82	3577F/73-83-86	3653F/76-85-88	3732F/79-85-88 3693**80-89-91
-10	3658	3327F/66-78-82	3588F/74-83-86	3665F/77-85-88 3661**77-86-88	3745F/79-85-88 3698**81-90-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 160 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

18 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 403 FT

RUNWAY 36

OPMT

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2670	2568*/55-57-60	2700*/60-61-63	2734*/60-61-63	2768*/60-61-63
			2697**63-64-66	2722**66-68-69	2746**69-71-72
58A	2727	2606*/56-58-61	2745*/61-62-64	2781*/61-62-64	2817*/62-62-64
			2746**64-65-67	2772**67-69-70	2797**70-72-73
56A	2793	2647*/56-59-62	2796*/62-64-66	2833*/63-64-66	2870*/63-64-66
			2801**64-65-67	2828**67-69-70	2853**70-73-74
54A	2859	2688*/57-60-64	2852*/64-66-68	2886*/64-66-68	2923*/65-66-68
				2884**67-69-71	2910**71-73-74
52	2934	2733*/57-62-65	2901*/65-67-70	2944*/66-68-70	2982*/66-68-70
				2946**68-70-72	2974**71-74-75
50	3009	2778*/58-63-66	2949*/65-69-71	3007*/68-70-73	3041*/68-70-73
					3037**71-74-76
48	3089	2824*/58-64-68	2999*/66-70-72	3058*/68-72-74	3103*/69-73-75
					3104**71-75-76
46	3166	2866*/58-65-69	3044*/66-71-74	3105*/69-73-75	3166*/71-75-77
44	3241	2908*/59-66-70	3089*/67-72-75	3151*/69-74-77	3213*/72-76-78
42	3314	2949*/59-67-72	3132*/67-73-76	3196*/70-75-78	3259*/72-77-80
40	3386	2989*/59-68-73	3175*/67-74-78	3239*/70-76-79	3305*/73-78-81
38	3463	3026*/60-69-74	3215*/68-75-79	3280*/70-77-80	3349*/73-79-82
36	3531	3065*/60-70-75	3255*/68-76-80	3323*/71-78-81	3393*/73-80-83
34	3594	3099*/60-71-76	3292*/68-77-81	3362*/71-79-82	3451*/73-80-83
32	3647	3127*/60-71-77	3325*/69-78-82	3395*/71-80-83	3501*/73-81-84
30	3648	3136*/61-72-77	3334*/69-78-82	3405*/72-80-84	3511*/74-81-84
28	3649	3144*/61-72-77	3344*/69-78-82	3418*/72-80-84	3520*/74-81-84
26	3649	3153*/61-72-78	3354*/70-78-82	3436*/72-80-84	3530*/74-82-85
24	3650	3161*/62-73-78	3363*/70-79-83	3454*/72-80-84	3540*/75-82-85
22	3651	3170*/62-73-78	3373*/70-79-83	3472*/72-80-84	3550*/75-82-85
20	3651	3179*/62-73-78	3383*/71-79-83	3489*/73-80-84	3559*/75-83-85
18	3652	3187*/63-73-78	3393*/71-80-83	3499*/73-81-84	3569*/76-83-86
16	3652	3196*/63-74-79	3403*/71-80-84	3509*/73-81-84	3579*/76-83-86
14	3653	3205*/63-74-79	3415*/72-80-84	3519*/74-81-84	3590*/77-83-86
12	3654	3214*/64-74-79	3433*/72-80-84	3529*/74-82-85	3600*/77-84-86
10	3655	3223*/64-74-79	3452*/72-80-84	3539*/74-82-85	3610*/77-84-87
8	3655	3233*/64-75-80	3470*/72-80-84	3549*/75-82-85	3621*/78-84-87
6	3656	3242*/65-75-80	3488*/72-80-84	3559*/75-83-85	3631*/78-85-87
4	3656	3251*/65-75-80	3498*/73-81-84	3569*/76-83-86	3642*/79-85-87
2	3657	3260*/65-76-80	3508*/73-81-84	3580*/76-83-86	3652*/79-85-88
0	3657	3270*/66-76-81	3519*/73-81-84	3590*/76-83-86	3657*/79-85-88
					3660**79-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 640 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 210 M OF STOPWAY

RUNWAY SLOPES ARE -0.00 PERCENT FOR TODA AND -0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	13	381	0	396	35819	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 403 FT

RUNWAY 36

OPMT

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
-2	3657	3279*/66-76-81	3529*/74-82-85	3600*/77-84-86	3662*/79-85-88 3666**80-86-88
-4	3657	3289*/66-77-81	3539*/74-82-85	3611*/77-84-87	3669*/79-85-88 3671**81-87-89
-6	3657	3299*/67-77-81	3549*/75-82-85	3621*/78-84-87	3677*/79-85-88 3677**81-88-89
-8	3658	3309*/67-77-81	3559*/75-83-85	3632*/78-85-87	3684*/79-85-88 3683**82-88-90
-10	3658	3319*/67-77-82	3570*/75-83-86	3643*/78-85-87	3691*/79-85-88 3689**82-89-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 640 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 210 M OF STOPWAY

RUNWAY SLOPES ARE -0.00 PERCENT FOR TODA AND -0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	13	381	0	396	35819	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 1211 FT

RUNWAY 17

OPPS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PESHAWAR INTL
 PESHAWAR
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2591	2270*/43-47-51	2413*/51-52-55	2454*/54-54-56	2492*/55-55-57
58A	2647	2307*/43-48-52	2453*/52-53-56	2499*/55-55-58	2537*/56-56-59
56A	2711	2350*/44-49-54	2500*/53-55-58	2548*/56-56-59	2590*/58-58-61
54A	2775	2392*/45-50-55	2546*/54-56-59	2596*/57-58-61	2642*/59-59-62
52	2837	2432*/46-51-56	2589*/55-57-61	2640*/57-59-62	2690*/60-61-64
50	2908	2479*/47-53-58	2638*/55-58-62	2691*/58-60-64	2742*/61-62-65
48	2984	2526*/48-54-59	2689*/56-60-64	2742*/59-62-65	2793*/62-63-67
46	3064	2571F/48-55-61	2737*/57-61-65	2791*/60-63-67	2844*/62-65-68
44	3138	2613F/49-56-62	2781*/57-62-67	2835*/60-64-68	2890*/63-66-70
42	3208	2652F/50-57-63	2823*/58-63-68	2878*/60-65-70	2935*/63-67-71
40	3280	2690F/50-58-65	2866*/58-64-69	2922*/61-66-71	2980*/63-68-72
38	3347	2722F/51-59-66	2902F/58-65-70	2960*/61-67-72	3018*/64-69-74
36	3417	2758F/51-60-67	2941F/59-66-72	3002*/62-68-73	3061*/64-70-75
34	3488	2789F/51-61-68	2973F/59-67-73	3037F/62-69-74	3098*/65-71-76
32	3546	2818F/52-62-69	3005F/60-68-74	3070F/62-70-75	3134*/65-72-77
30	3592	2842F/52-62-69	3031F/60-69-74	3096F/63-71-76	3163F/65-73-78
28	3592	2850F/52-62-70	3040F/60-69-75	3105F/63-71-76	3171*/66-73-78
26	3592	2858F/53-63-70	3048F/61-69-75	3114F/63-71-76	3179*/66-73-78
24	3593	2866F/53-63-70	3057F/61-69-75	3123F/64-72-77	3187*/66-74-78
22	3593	2874F/53-63-70	3066F/61-70-75	3132F/64-72-77	3195*/67-74-79
20	3593	2883F/53-64-70	3075F/62-70-75	3141*/64-72-77	3203*/67-74-79
18	3594	2891F/54-64-71	3084F/62-70-76	3149*/65-72-77	3212*/68-74-79
16	3594	2899F/54-64-71	3093F/62-71-76	3157*/65-73-78	3220*/68-75-79
14	3594	2907F/54-64-71	3102F/63-71-76	3165*/65-73-78	3228*/68-75-79
12	3595	2915F/55-65-71	3111*/63-71-76	3173*/66-73-78	3237*/69-75-80
10	3595	2924F/55-65-72	3119*/63-71-77	3182*/66-73-78	3245*/69-75-80
8	3596	2933F/55-65-72	3127*/64-72-77	3190*/67-74-78	3254*/69-76-80
6	3596	2941F/56-66-72	3135*/64-72-77	3198*/67-74-79	3262*/70-76-80
4	3597	2950F/56-66-72	3144*/64-72-77	3207*/67-74-79	3271*/70-76-80
2	3597	2959F/56-66-72	3152*/65-72-77	3215*/68-75-79	3280*/71-77-81
0	3597	2967F/57-66-73	3160*/65-73-78	3224*/68-75-79	3289*/71-77-81
-2	3597	2976F/57-67-73	3169*/66-73-78	3232*/68-75-80	3298*/71-77-81
-4	3597	2985F/57-67-73	3177*/66-73-78	3241*/69-75-80	3307*/72-77-81
-6	3597	2994F/58-67-73	3185*/66-74-78	3249*/69-76-80	3316*/72-78-82
-8	3597	3003F/58-68-74	3194*/67-74-79	3258*/70-76-80	3325*/73-78-82
-10	3597	3013F/58-68-74	3202*/67-74-79	3267*/70-76-80	3334*/73-78-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 450 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17	46	695	0	60	977	0			

ENG-OUT PROCEDURE:

NONE

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*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF PESHAWAR INTL
PESHAWAR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2591	2336F/43-49-53	2510F/51-55-58	2570F/54-58-60	2631F/57-58-60
					2608**57-61-62
58A	2647	2370F/43-50-54	2546F/52-57-59	2607F/55-59-61	2670F/58-60-62
					2657**58-61-63
56A	2711	2410F/44-51-55	2589F/53-58-61	2650F/56-60-62	2713F/58-62-64
					2712**58-62-64
54A	2775	2450F/45-52-57	2631F/54-59-62	2693F/56-61-64	2755F/59-63-65
52	2837	2488F/46-53-58	2671F/55-60-63	2732F/57-62-65	2793F/60-64-66
50	2908	2532F/47-55-59	2715F/55-61-64	2774F/58-63-66	2836F/60-65-68
48	2984	2576F/48-56-61	2757F/56-62-66	2818F/58-64-67	2880F/61-66-69
46	3064	2621F/49-57-62	2800F/56-63-67	2862F/59-65-69	2924F/61-67-70
44	3138	2659F/49-58-63	2840F/57-64-68	2903F/59-66-70	2966F/62-68-72
42	3208	2695F/50-59-65	2878F/57-65-70	2942F/60-67-71	3006F/62-69-73
40	3280	2732F/50-60-66	2918F/58-66-71	2982F/60-68-72	3047F/63-70-74
38	3347	2764F/50-61-67	2951F/58-67-72	3017F/61-69-73	3083F/63-71-75
36	3417	2800F/50-62-68	2989F/58-68-73	3055F/61-70-75	3123F/64-72-76
34	3488	2830F/51-62-69	3022F/59-69-74	3088F/61-71-76	3157F/64-73-77
32	3546	2859F/51-63-70	3053F/59-69-75	3120F/62-72-77	3189F/64-74-78
30	3592	2884F/51-64-70	3079F/59-70-76	3147F/62-72-77	3217F/65-75-79
28	3592	2892F/51-64-71	3088F/60-70-76	3156F/62-73-78	3226F/65-75-79
26	3592	2900F/52-64-71	3097F/60-71-76	3166F/63-73-78	3236F/65-75-80
24	3593	2908F/52-64-71	3106F/60-71-76	3175F/63-73-78	3246F/66-76-80
22	3593	2916F/52-65-71	3115F/61-71-77	3185F/63-74-78	3256F/66-76-80
20	3593	2925F/53-65-72	3125F/61-72-77	3194F/64-74-79	3266F/66-76-80
18	3594	2933F/53-65-72	3134F/61-72-77	3204F/64-74-79	3276F/67-76-81
16	3594	2942F/53-66-72	3144F/61-72-77	3214F/64-75-79	3287F/67-77-81
14	3594	2951F/54-66-72	3153F/62-73-78	3224F/65-75-79	3297F/67-77-81
12	3595	2960F/54-66-72	3163F/62-73-78	3234F/65-75-80	3308F/68-77-81
10	3595	2968F/54-66-73	3173F/62-73-78	3244F/65-75-80	3320F/68-78-82
8	3596	2977F/54-67-73	3183F/63-74-78	3255F/66-76-80	3330F/68-78-82
6	3596	2987F/55-67-73	3193F/63-74-79	3265F/66-76-80	3342F/69-78-82
4	3597	2996F/55-67-73	3203F/63-74-79	3276F/66-76-81	3353F/69-79-82
2	3597	3005F/55-68-74	3213F/64-74-79	3287F/67-77-81	3364F/69-79-83
0	3597	3014F/56-68-74	3224F/64-75-79	3298F/67-77-81	3375F/70-79-83
-2	3597	3024F/56-68-74	3234F/65-75-80	3309F/67-77-81	3387F/70-80-83
-4	3597	3033F/56-69-74	3245F/65-75-80	3320F/68-78-82	3398F/71-80-83
-6	3597	3042F/57-69-75	3255F/65-76-80	3332F/68-78-82	3410F/71-80-84
-8	3597	3052F/57-69-75	3266F/66-76-80	3343F/68-78-82	3431F/71-80-84
-10	3597	3062F/57-70-75	3277F/66-76-81	3354F/69-79-82	3453F/71-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.50 PERCENT FOR TODA AND -0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35	364	12387	0						

ENG-OUT PROCEDURE:

NONE

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*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD INTL A
 ISLAMABAD
 DATED 08-FEB-2017
 777-200LR GE90-110B1L
 A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE
 OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2545	2338F/49-49-53	2490F/55-55-57	2543F/57-57-59	2595F/57-57-59
					2568**59-60-62
58A	2599	2374F/50-51-54	2528F/56-56-59	2581F/58-58-60	2634F/58-59-61
					2615**60-61-62
56A	2663	2415F/51-52-55	2572F/57-57-60	2626F/59-59-61	2680F/60-61-63
					2671**61-62-63
54A	2727	2457F/52-53-57	2615F/58-59-61	2670F/60-60-63	2726F/62-62-64
52A	2788	2497F/53-54-58	2657F/59-60-63	2712F/61-62-64	2769F/63-64-66
50	2853	2539F/54-55-59	2701F/60-61-64	2757F/62-63-66	2815F/65-65-67
48	2925	2584F/55-56-61	2748F/61-62-65	2806F/64-64-67	2864F/66-66-69
46	3004	2625F/56-57-62	2798F/63-64-67	2856F/65-66-69	2916F/67-67-70
44	3080	2664F/56-58-63	2841F/63-65-68	2902F/66-67-70	2965F/68-69-72
42	3149	2701F/56-59-65	2880F/64-66-70	2943F/66-68-71	3006F/69-70-73
40	3218	2738F/57-60-66	2919F/64-67-71	2982F/67-69-72	3047F/69-71-74
38	3287	2772F/57-61-67	2956F/65-67-72	3020F/67-70-73	3085F/70-72-75
36	3354	2807F/58-62-68	2993F/65-68-73	3057F/68-71-75	3123F/70-73-76
34	3420	2838F/58-63-69	3026F/65-69-74	3092F/68-71-76	3158F/71-74-77
32	3486	2869F/58-64-70	3059F/66-70-75	3125F/68-72-77	3193F/71-74-78
30	3535	2894F/58-64-71	3087F/66-71-76	3154F/69-73-77	3222F/71-75-79
28	3560	2912F/59-65-71	3106F/66-71-76	3173F/69-73-78	3242F/72-76-80
26	3560	2920F/59-65-71	3115F/67-71-76	3183F/69-74-78	3252F/72-76-80
24	3560	2929F/59-65-72	3124F/67-72-77	3192F/70-74-78	3261F/72-76-80
22	3561	2937F/60-66-72	3133F/67-72-77	3202F/70-74-79	3271F/73-76-80
20	3561	2945F/60-66-72	3143F/68-72-77	3211F/70-75-79	3281F/73-77-81
18	3561	2954F/60-66-72	3152F/68-73-77	3221F/71-75-79	3292F/73-77-81
16	3561	2962F/61-66-73	3162F/68-73-78	3230F/71-75-79	3302F/74-77-81
14	3562	2971F/61-67-73	3171F/69-73-78	3240F/71-76-80	3313F/74-78-81
12	3562	2980F/61-67-73	3181F/69-74-78	3250F/72-76-80	3324F/74-78-82
10	3562	2988F/62-67-73	3190F/69-74-78	3260F/72-76-80	3335F/75-78-82
8	3563	2997F/62-68-73	3200F/70-74-79	3271F/73-76-80	3346F/75-79-82
6	3563	3006F/62-68-74	3210F/70-75-79	3281F/73-77-81	3357F/76-79-82
4	3564	3015F/62-68-74	3220F/71-75-79	3292F/73-77-81	3368F/76-79-83
2	3564	3025F/63-69-74	3230F/71-75-79	3303F/74-77-81	3380F/76-80-83
0	3564	3034F/63-69-74	3240F/71-76-80	3314F/74-78-81	3391F/77-80-83
-2	3564	3043F/64-69-75	3251F/72-76-80	3325F/74-78-82	3403F/77-80-83
-4	3564	3052F/64-69-75	3261F/72-76-80	3336F/75-78-82	3417F/77-81-84
-6	3564	3062F/64-70-75	3271F/72-77-80	3348F/75-79-82	3439F/77-81-84
-8	3564	3071F/65-70-75	3282F/73-77-81	3359F/75-79-82	3461F/78-81-84
-10	3564	3081F/65-70-76	3293F/73-77-81	3371F/76-79-83	3484F/78-81-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT
 LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB
 RUNWAY IS 3017 M LONG WITH 0 M OF CLEARWAY AND 229 M OF STOPWAY
 RUNWAY SLOPES ARE -0.03 PERCENT FOR TODA AND -0.03 PERCENT FOR ASDA
 LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
 RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
 12 NONE
 ENG-OUT PROCEDURE:
 NONE

INTENTIONALLY LEFT BLANK

ELEVATION 1668 FT

RUNWAY 30

OPRN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD INTL A
ISLAMABAD
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2545	2419*/52-52-55	2528*/56-56-58	2557*/56-57-59	2587*/57-57-59
				2561**59-59-61	2590**62-63-64
58A	2599	2461*/54-54-57	2574*/58-58-60	2605*/58-59-61	2635*/58-59-61
				2609**60-60-62	2638**63-64-65
56A	2663	2512*/55-55-58	2627*/59-59-62	2663*/60-61-63	2691*/60-61-63
					2694**64-65-66
54A	2727	2562*/57-57-60	2679*/61-61-63	2718*/62-62-64	2747*/62-62-64
					2750**65-66-67
52A	2788	2605F/57-58-61	2729*/62-62-65	2769*/63-64-66	2798*/63-64-66
					2804**66-66-68
50	2853	2644F/57-59-62	2782*/64-64-66	2823*/65-65-67	2853*/65-66-68
					2861**67-67-69
48	2925	2685F/58-60-64	2840*/65-65-68	2882*/66-67-69	2923*/68-68-70
46	3004	2727F/58-61-65	2898*/66-67-70	2945*/68-68-71	2987*/70-70-72
44	3080	2767F/59-62-66	2947F/66-68-71	3000*/69-70-73	3048*/71-72-74
42	3149	2806F/59-63-67	2987F/66-69-72	3048*/69-71-74	3101*/72-73-75
40	3218	2843F/60-64-69	3027F/67-70-74	3092F/69-72-75	3149*/72-74-77
38	3287	2879F/60-65-70	3065F/67-71-75	3130F/70-73-76	3195*/72-75-78
36	3354	2914F/60-66-71	3103F/68-72-76	3169F/70-74-77	3236F/73-76-79
34	3420	2947F/61-67-72	3137F/68-73-77	3204F/71-75-78	3272F/73-77-80
32	3486	2978F/61-67-73	3171F/69-74-78	3238F/71-76-79	3309F/74-78-81
30	3535	3005F/61-68-74	3200F/69-74-79	3268F/72-77-80	3340F/74-79-82
28	3560	3023F/61-68-74	3220F/69-75-79	3289F/72-77-81	3362F/74-79-82
26	3560	3032F/62-69-74	3229F/70-75-79	3299F/72-77-81	3372F/75-79-83
24	3560	3040F/62-69-75	3239F/70-75-80	3309F/73-78-81	3383F/75-80-83
22	3561	3049F/62-69-75	3248F/70-76-80	3319F/73-78-82	3393F/75-80-83
20	3561	3058F/63-70-75	3258F/71-76-80	3329F/73-78-82	3404F/76-80-83
18	3561	3067F/63-70-75	3267F/71-76-80	3340F/74-78-82	3418F/76-81-84
16	3561	3075F/63-70-75	3277F/71-77-81	3351F/74-79-82	3438F/76-81-84
14	3562	3084F/64-70-76	3287F/72-77-81	3361F/74-79-82	3458F/76-81-84
12	3562	3093F/64-71-76	3298F/72-77-81	3372F/75-79-83	3473*/77-81-83
10	3562	3103F/64-71-76	3308F/72-78-81	3383F/75-80-83	3487*/77-81-83
8	3563	3112F/65-71-76	3319F/73-78-82	3394F/75-80-83	3496*/77-81-84
6	3563	3121F/65-72-77	3330F/73-78-82	3406F/76-80-83	3504*/78-81-84
4	3564	3131F/65-72-77	3341F/73-79-82	3422F/76-81-84	3513*/78-82-84
2	3564	3140F/66-72-77	3352F/74-79-82	3440*/76-81-84	3521*/79-82-84
0	3564	3150F/66-73-77	3363F/74-79-83	3454*/76-81-84	3529*/79-82-84
-2	3564	3160F/66-73-78	3374F/74-79-83	3468*/77-81-83	3538*/80-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3291 M LONG WITH 0 M OF CLEARWAY AND 213 M OF STOPWAY

RUNWAY SLOPES ARE 0.03 PERCENT FOR TODA AND 0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30	45	708	0	78	1408	0	78	1418	0
	110	2203	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 30

OPRN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

ISLAMABAD INTL A

ISLAMABAD

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-4	3564	3169F/67-73-78	3385F/75-80-83	3483*/77-81-83	3546*/80-83-85
-6	3564	3179F/67-74-78	3397F/75-80-83	3492*/77-81-84	3555*/81-83-85
-8	3564	3189F/67-74-78	3408F/76-80-84	3501*/78-81-84	3563*/81-83-85
-10	3564	3199F/68-74-79	3421*/76-81-84	3509*/78-81-84	3564*/81-83-85
					3569**82-84-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3291 M LONG WITH 0 M OF CLEARWAY AND 213 M OF STOPWAY

RUNWAY SLOPES ARE 0.03 PERCENT FOR TODA AND 0.03 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS FROM LO-FT/M				
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30	45	708	0	78	1408	0	78	1418	0
	110	2203	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 30txwA OPRN

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD INTL A
ISLAMABAD
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2545	2103F/40-40-46	2254F/46-46-50	2303F/48-48-52	2354F/50-50-53
58A	2599	2135F/40-41-47	2288F/47-47-52	2338F/49-49-53	2389F/51-51-55
56A	2663	2171F/41-42-48	2328F/48-48-53	2380F/50-50-54	2431F/52-52-56
54A	2727	2207F/42-43-49	2368F/50-50-54	2421F/52-52-56	2473F/53-53-57
52A	2788	2241F/43-44-51	2406F/51-51-55	2460F/53-53-57	2513F/55-55-59
50	2853	2277F/44-45-52	2446F/52-52-57	2500F/54-54-58	2555F/56-56-60
48	2925	2317F/44-47-53	2489F/53-53-58	2544F/55-55-60	2601F/57-57-61
46	3004	2357F/45-48-55	2534F/54-54-60	2590F/56-56-61	2647F/58-58-63
44	3080	2396F/46-49-56	2577F/55-55-61	2634F/57-57-63	2692F/59-59-64
42	3149	2434F/47-50-57	2618F/56-56-62	2676F/58-59-64	2735F/60-61-66
40	3218	2471F/48-51-58	2658F/57-58-64	2718F/59-60-65	2777F/61-62-67
38	3287	2506F/49-52-59	2694F/57-59-65	2755F/60-61-66	2817F/62-63-68
36	3354	2542F/49-53-61	2729F/58-59-66	2791F/60-62-68	2854F/63-64-69
34	3420	2573F/50-54-62	2760F/58-60-67	2823F/61-62-69	2887F/63-65-70
32	3486	2605F/51-54-63	2790F/59-61-68	2854F/61-63-69	2919F/64-65-71
30	3535	2631F/51-55-64	2816F/59-62-69	2880F/61-64-70	2946F/64-66-72
28	3560	2647F/52-56-64	2833F/59-62-69	2898F/62-64-71	2965F/64-67-73
26	3560	2654F/52-56-64	2842F/60-62-69	2907F/62-65-71	2973F/65-67-73
24	3560	2662F/52-56-64	2850F/60-63-70	2916F/62-65-71	2982F/65-67-73
22	3561	2669F/52-56-65	2858F/60-63-70	2924F/63-65-72	2991F/65-67-73
20	3561	2677F/53-57-65	2867F/61-63-70	2933F/63-65-72	3000F/66-68-73
18	3561	2685F/53-57-65	2875F/61-64-70	2942F/63-66-72	3009F/66-68-74
16	3561	2693F/53-57-65	2884F/61-64-70	2951F/64-66-72	3019F/66-68-74
14	3562	2701F/54-57-65	2893F/61-64-71	2960F/64-66-72	3028F/67-69-74
12	3562	2708F/54-58-66	2902F/62-64-71	2969F/64-67-73	3037F/67-69-74
10	3562	2717F/54-58-66	2911F/62-65-71	2978F/65-67-73	3047F/67-69-75
8	3563	2725F/55-58-66	2920F/62-65-71	2987F/65-67-73	3057F/68-70-75
6	3563	2733F/55-59-66	2929F/63-65-72	2997F/65-68-73	3066F/68-70-75
4	3564	2741F/55-59-67	2938F/63-66-72	3006F/66-68-74	3076F/69-70-75
2	3564	2750F/55-59-67	2947F/63-66-72	3016F/66-68-74	3086F/69-71-76
0	3564	2758F/56-59-67	2957F/64-66-72	3025F/67-69-74	3096F/69-71-76
-2	3564	2766F/56-60-67	2966F/64-67-73	3035F/67-69-74	3106F/70-71-76
-4	3564	2775F/56-60-68	2975F/65-67-73	3045F/67-69-75	3116F/70-72-77
-6	3564	2783F/57-60-68	2985F/65-67-73	3055F/68-70-75	3127F/70-72-77
-8	3564	2792F/57-61-68	2994F/65-68-73	3065F/68-70-75	3137F/71-72-77
-10	3564	2801F/57-61-68	3004F/66-68-74	3075F/68-70-75	3148F/71-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2470 M LONG WITH 0 M OF CLEARWAY AND 213 M OF STOPWAY

RUNWAY SLOPES ARE 0.03 PERCENT FOR TODA AND 0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30txwA	45	708	0	78	1408	0	78	1418	0
	110	2203	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SIALKOT INTL
SIALKOT
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2634	2718F/57-60-62	2881F/59-60-62	2938F/59-60-62	2995F/59-60-62
		2670**61-65-66	2732**70-74-74	2745**73-76-76	2745**73-76-76
58A	2690	2759F/58-61-63	2925F/60-61-63	2982F/61-61-63	3040F/61-61-63
		2719**61-65-67	2782**71-75-75	2801**74-78-78	2801**74-78-78
56A	2755	2799F/60-63-65	2975F/61-63-65	3033F/62-63-65	3092F/63-63-65
		2774**61-66-67	2840**71-76-76	2860**74-79-79	2865**76-80-80
54A	2820	2839F/61-65-67	3019F/63-65-67	3081F/63-65-67	3143F/64-65-67
		2829**61-66-68	2898**71-76-77	2918**74-80-80	2933**77-82-82
52	2888	2881F/61-67-69	3062F/64-67-69	3125F/65-67-69	3190F/65-67-69
			2958**71-77-77	2980**75-80-80	3001**78-83-83
50	2961	2925F/62-68-70	3109F/66-69-71	3173F/66-69-71	3238F/67-69-71
			3022**71-77-78	3046**75-81-81	3068**78-84-84
48	3040	2971F/62-69-72	3157F/67-71-73	3222F/68-71-73	3288F/68-71-73
			3088**71-78-79	3112**75-81-82	3136**78-84-85
46	3118	3014F/63-70-73	3203F/69-74-76	3269F/69-74-76	3339F/70-74-76
			3154**71-78-79	3179**75-81-82	3204**78-85-85
44	3193	3056F/63-71-74	3247F/70-76-78	3316F/71-76-78	3387F/71-76-78
			3216**71-78-80	3243**75-82-83	3268**78-85-86
42	3263	3096F/63-72-75	3290F/71-77-80	3361F/72-77-80	3453F/73-77-80
			3275**71-79-81	3303**75-82-84	3331**78-86-87
40	3336	3137F/64-73-77	3336F/71-79-81	3407F/73-79-81	3516F/74-79-81
				3366**75-83-84	3395**79-86-87
38	3404	3174F/64-74-78	3377F/72-80-82	3485F/74-81-83	3557F/75-81-83
				3430**75-83-85	3472**78-86-87
36	3482	3213F/64-75-79	3429F/72-81-83	3528F/74-81-83	3600F/74-81-83
				3503**75-83-85	3534**78-87-88
34	3543	3248F/65-76-80	3494F/72-81-84	3565F/75-83-85	3638F/75-83-85
				3553**75-84-86	3585**78-87-89
32	3604	3281F/65-77-81	3529F/72-82-84	3601F/75-84-86	3675F/76-84-86
					3636**78-87-89
30	3624	3298F/65-77-81	3547F/72-82-85	3620F/75-84-87	3694F/77-85-87
					3655**79-88-90
28	3624	3307F/65-77-81	3557F/73-83-85	3630F/75-85-87	3705F/77-85-87
				3627**75-85-87	3660**79-88-90
26	3625	3317F/66-78-82	3567F/73-83-85	3641F/76-85-87	3716F/77-85-87
				3632**76-85-87	3665**80-89-91
24	3625	3327F/66-78-82	3578F/73-83-86	3651F/76-85-87	3727F/77-85-87
				3637**76-86-88	3670**80-89-91
22	3625	3337F/66-78-82	3588F/74-84-86	3662F/76-85-87	3738F/77-85-87
				3642**77-86-88	3676**81-90-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

04 NONE

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 04 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,

COMMENCED AT D11.0 SLT DME TO A MAG COURES OF 165 DEGREES.

PCN LIMITED WT 328000 KGs
 ELEVATION 786 FT RUNWAY 04 OPST

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SIALKOT INTL
 SIALKOT
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

20	3626	3347F/67-78-82	3599F/74-84-86	3673F/76-85-87	3749F/77-85-87
				3647**77-87-89	3681**81-90-92
18	3626	3357F/67-79-82	3610F/74-84-86	3684F/76-85-87	3761F/77-85-87
				3652**78-87-89	3686**82-91-92
16	3627	3367F/67-79-83	3620F/75-84-87	3695F/77-85-87	3772F/77-85-87
				3658**78-88-90	3691**82-91-93
14	3627	3377F/68-79-83	3631F/75-85-87	3707F/77-85-87	3784F/78-85-87
			3629**75-85-87	3663**79-88-90	3696**83-92-93
12	3627	3388F/68-80-83	3642F/76-85-87	3718F/77-85-87	3787F/78-85-87
			3634**76-85-88	3668**79-89-91	3701**83-93-94
10	3628	3399F/68-80-83	3654F/76-85-87	3730F/77-85-87	3787F/78-85-87
			3640**76-86-88	3674**80-90-91	3707**84-93-94
8	3629	3409F/69-80-84	3665F/76-85-87	3741F/77-85-87	3787F/78-85-87
			3645**77-86-88	3679**80-90-92	3712**84-94-95
6	3629	3427F/69-80-84	3676F/76-85-87	3753F/77-85-87	3787F/78-85-87
			3650**77-87-89	3685**81-91-92	3718**85-94-95
4	3629	3447F/69-80-84	3688F/76-85-87	3765F/77-85-87	3787F/78-85-87
			3656**78-88-89	3690**81-91-92	3723**85-95-96
2	3630	3466F/69-80-84	3699F/76-85-87	3777F/77-85-87	3787F/78-85-87
			3661**78-88-90	3695**82-92-93	3728**86-95-96
0	3630	3487F/69-80-84	3711F/76-85-87	3787F/77-85-87	3787F/78-85-87
			3666**79-89-90	3700**83-92-93	3734**86-96-97
-2	3630	3498F/69-81-84	3723F/77-85-87	3787F/77-85-87	3787F/78-85-87
			3672**79-89-91	3706**83-93-94	3739**87-97-97
-4	3630	3508F/70-81-84	3734F/77-85-87	3787F/78-85-87	3787F/78-85-87
			3677**80-90-91	3711**84-93-94	3744**88-97-98
-6	3630	3519F/70-81-84	3746F/77-85-87	3787F/78-85-87	3787F/78-85-87
			3683**80-90-92	3716**84-94-95	3749**88-98-98
-8	3630	3530F/71-82-85	3758F/77-85-87	3787F/78-85-87	3787F/79-85-87
			3688**81-91-92	3721**85-95-96	3754**89-98-99
-10	3630	3541F/71-82-85	3770F/77-85-87	3787F/78-85-87	3787F/79-85-87
			3693**81-91-93	3727**85-95-96	3759**89-99-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
 RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
 04 NONE

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 04 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D11.0 SLT DME TO A MAG COURES OF 165 DEGREES.

ELEVATION 786 FT PCN LIMITED WT 328000 KGS RUNWAY 22 OPST

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SIALKOT INTL
SIALKOT
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2634	2721F/57-60-62	2884F/59-60-62	2940F/59-60-62	2998F/59-60-62
		2671**61-65-66	2733**70-74-74	2745**72-76-76	2745**73-76-76
58A	2690	2761F/58-61-63	2927F/60-61-63	2985F/61-61-63	3043F/61-61-63
		2720**61-65-67	2783**71-75-75	2801**74-78-78	2801**74-78-78
56A	2755	2801F/60-63-65	2978F/61-63-65	3036F/62-63-65	3095F/63-63-65
		2774**61-66-68	2841**71-76-76	2860**74-79-79	2865**76-80-80
54A	2820	2842F/61-65-67	3021F/63-65-67	3083F/63-65-67	3146F/64-65-67
		2830**61-66-68	2899**71-76-77	2919**74-80-80	2933**77-82-82
52	2888	2883F/61-67-69	3065F/64-67-69	3128F/65-67-69	3192F/65-67-69
			2958**71-77-78	2981**75-80-81	3002**78-84-84
50	2961	2927F/62-68-70	3112F/66-69-71	3175F/66-69-71	3240F/67-69-71
			3022**71-77-78	3047**75-81-81	3068**78-84-84
48	3040	2973F/62-69-72	3160F/67-71-73	3224F/68-71-73	3291F/68-71-73
			3089**71-78-79	3113**75-81-82	3137**78-85-85
46	3118	3016F/63-70-73	3206F/68-74-76	3272F/69-74-76	3341F/70-74-76
			3155**71-78-80	3180**75-82-83	3205**78-85-86
44	3193	3058F/63-71-74	3249F/70-76-78	3318F/71-76-78	3389F/71-76-78
			3217**71-79-80	3244**75-82-83	3269**78-85-86
42	3263	3098F/63-72-75	3293F/71-77-80	3363F/72-77-80	3458F/72-77-80
			3276**71-79-81	3304**75-82-84	3332**78-86-87
40	3336	3139F/64-73-77	3338F/71-79-81	3410F/73-79-81	3518F/74-79-81
				3367**75-83-84	3396**79-86-87
38	3404	3176F/64-74-78	3380F/72-80-83	3488F/74-81-83	3559F/75-81-83
				3431**75-83-85	3473**78-86-87
36	3482	3215F/64-75-79	3433F/72-81-83	3530F/74-81-83	3602F/74-81-83
				3504**75-83-85	3535**78-87-88
34	3543	3250F/65-76-80	3496F/72-81-84	3568F/74-83-85	3641F/75-83-85
				3554**75-84-86	3586**78-87-89
32	3604	3282T/65-77-81	3532F/72-82-85	3604F/75-84-86	3677F/76-84-86
					3637**78-88-89
30	3624	3300F/65-77-81	3549F/72-82-85	3622F/75-85-87	3696F/77-85-87
					3656**79-88-90
28	3624	3309F/65-77-81	3560F/73-83-85	3632F/76-85-87	3707F/77-85-87
				3628**75-85-87	3661**79-88-90
26	3625	3319F/66-78-82	3570F/73-83-86	3643F/76-85-87	3718F/77-85-87
				3633**76-85-88	3666**80-89-91
24	3625	3329F/66-78-82	3580F/73-83-86	3654F/76-85-87	3729F/77-85-87
				3638**76-86-88	3672**80-90-91
22	3625	3339F/66-78-82	3591F/74-84-86	3665F/76-85-87	3740F/77-85-87
				3643**77-87-88	3677**81-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

22 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 786 FT PCN LIMITED WT 328000 KGs RUNWAY 22 OPST

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SIALKOT INTL
SIALKOT
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3626	3349F/67-78-82	3601F/74-84-86	3676F/76-85-87	3752F/77-85-87
				3648**77-87-89	3682**81-91-92
18	3626	3359F/67-79-83	3612F/74-84-87	3687F/76-85-87	3763F/77-85-87
				3653**78-88-89	3687**82-91-92
16	3627	3369F/67-79-83	3623F/75-85-87	3698F/76-85-87	3775F/77-85-87
				3659**78-88-90	3692**82-92-93
14	3627	3380F/68-79-83	3634F/75-85-87	3709F/77-85-87	3786F/77-85-87
			3630**75-85-87	3664**79-89-90	3697**83-92-93
12	3627	3390F/68-80-83	3645F/76-85-87	3721F/77-85-87	3787F/78-85-87
			3636**76-86-88	3669**79-89-91	3702**83-93-94
10	3628	3401F/68-80-83	3656F/76-85-87	3732F/77-85-87	3787F/78-85-87
			3641**76-86-88	3675**80-90-91	3708**84-93-94
8	3629	3412F/69-80-84	3667F/76-85-87	3744F/77-85-87	3787F/78-85-87
			3646**77-87-89	3681**80-90-92	3713**84-94-95
6	3629	3432F/69-80-84	3679F/76-85-87	3756F/77-85-87	3787F/78-85-87
			3652**77-87-89	3686**81-91-92	3719**85-94-95
4	3629	3451F/69-80-84	3690F/76-85-87	3768F/77-85-87	3787F/78-85-87
			3657**78-88-89	3691**81-91-93	3724**85-95-96
2	3630	3471F/69-80-84	3702F/76-85-87	3779F/77-85-87	3787F/78-85-87
			3662**78-88-90	3696**82-92-93	3729**86-95-96
0	3630	3489F/69-81-84	3713F/76-85-87	3787F/77-85-87	3787F/78-85-87
			3668**79-89-90	3701**83-92-94	3735**86-96-97
-2	3630	3500F/69-81-84	3725F/76-85-87	3787F/77-85-87	3787F/78-85-87
			3673**79-89-91	3707**83-93-94	3740**87-97-97
-4	3630	3511F/70-81-84	3737F/77-85-87	3787F/77-85-87	3787F/78-85-87
			3678**80-90-91	3712**84-94-95	3745**88-97-98
-6	3630	3521F/70-82-84	3749F/77-85-87	3787F/78-85-87	3787F/78-85-87
			3684**80-90-92	3717**84-94-95	3750**88-98-98
-8	3630	3532F/70-82-85	3761F/77-85-87	3787F/78-85-87	3787F/78-85-87
			3689**81-91-92	3722**85-95-96	3755**89-98-99
-10	3630	3543F/71-82-85	3773F/77-85-87	3787F/78-85-87	3787F/79-85-87
			3694**81-92-93	3728**85-95-96	3760**89-99-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

22 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 16L

RJAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2695	2195F/38-43-49	2360*/47-49-54	2413*/50-51-55	2465*/53-53-57
58A	2753	2228F/39-44-50	2397*/48-51-55	2452*/51-53-57	2505*/54-54-58
56A	2820	2265F/40-45-51	2440*/49-52-56	2496*/52-54-58	2551*/55-56-60
54	2888	2303F/41-46-53	2483F/50-53-58	2541*/53-55-60	2597*/56-57-61
52	2966	2346F/42-47-54	2529F/51-54-59	2590*/54-56-61	2649*/57-58-63
50	3043	2389F/43-49-55	2574F/52-55-61	2638F/55-58-63	2699*/58-60-64
48	3122	2431F/43-50-57	2619F/53-57-62	2684F/56-59-64	2748*/58-61-66
46	3199	2470F/44-51-58	2661F/53-58-64	2726F/56-60-65	2790F/59-62-67
44	3275	2509F/45-52-60	2702F/54-59-65	2767F/57-61-67	2830F/60-63-68
42	3349	2549F/46-53-61	2743F/55-60-66	2806F/58-62-68	2870F/60-64-70
40	3423	2587F/47-54-62	2780F/55-61-67	2843F/58-63-69	2908F/61-65-71
38	3498	2622F/47-55-63	2813F/56-62-68	2878F/59-64-70	2943F/61-66-72
36	3566	2659F/48-56-64	2848F/56-62-69	2914F/59-65-71	2980F/62-67-73
34	3630	2689F/49-57-65	2879F/57-63-70	2945F/59-65-72	3012F/62-68-74
32	3664	2707F/49-57-66	2898F/57-64-71	2965F/60-66-73	3033F/62-68-74
30	3664	2715F/49-57-66	2907F/57-64-71	2974F/60-66-73	3042F/63-69-75
28	3665	2722F/49-58-66	2915F/57-64-71	2982F/60-67-73	3051F/63-69-75
26	3666	2730F/50-58-66	2924F/58-65-72	2991F/61-67-73	3060F/63-69-75
24	3667	2738F/50-58-67	2932F/58-65-72	3000F/61-67-74	3069F/64-69-75
22	3668	2746F/50-58-67	2941F/58-65-72	3009F/61-67-74	3079F/64-70-76
20	3668	2754F/50-59-67	2950F/59-65-72	3019F/61-68-74	3088F/64-70-76
18	3669	2762F/51-59-67	2959F/59-66-73	3028F/62-68-74	3098F/65-70-76
16	3670	2770F/51-59-68	2968F/59-66-73	3037F/62-68-75	3107F/65-71-76
14	3671	2778F/51-60-68	2977F/60-66-73	3046F/62-69-75	3117F/65-71-77
12	3672	2786F/52-60-68	2986F/60-67-73	3056F/63-69-75	3127F/66-71-77
10	3672	2794F/52-60-68	2995F/60-67-74	3065F/63-69-75	3137F/66-72-77
8	3673	2803F/52-60-68	3005F/61-67-74	3075F/63-70-76	3147F/66-72-77
6	3674	2811F/53-61-69	3014F/61-68-74	3084F/64-70-76	3157F/67-72-78
4	3674	2820F/53-61-69	3023F/61-68-74	3094F/64-70-76	3167F/67-73-78
2	3675	2828F/53-61-69	3033F/62-68-75	3104F/65-71-76	3177F/67-73-78
0	3675	2837F/54-62-69	3042F/62-68-75	3114F/65-71-77	3187F/68-73-78
-2	3675	2845F/54-62-70	3052F/62-69-75	3124F/65-71-77	3198F/68-74-79
-4	3675	2854F/54-62-70	3061F/63-69-75	3134F/66-71-77	3208F/68-74-79
-6	3675	2863F/55-62-70	3071F/63-69-76	3144F/66-72-77	3218*/69-74-79
-8	3676	2872F/55-63-70	3081F/63-70-76	3154F/66-72-78	3227*/69-74-79
-10	3676	2880F/55-63-71	3091F/64-70-76	3164F/67-72-78	3236*/70-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.07 PERCENT FOR TODA AND 0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16L	10	239	0	16	346	0	39	379	0
	42	412	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 135 FT

RUNWAY 16R

RJAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2695	2675*/61-61-63	2746*/60-61-63	2770*/61-61-63	2794*/61-61-63
		2685**64-66-68	2779**70-73-74	2810**75-78-78	2812**75-78-78
58A	2753	2728*/62-62-64	2799*/62-63-65	2824*/62-63-65	2848*/63-63-65
		2735**65-67-69	2831**71-74-75	2862**76-79-79	2869**76-80-80
56A	2820	2788*/64-64-66	2860*/63-65-67	2885*/64-65-67	2910*/64-65-67
		2793**65-67-69	2891**73-76-76	2922**77-80-80	2936**78-82-82
54	2888	2849*/65-66-68	2922*/64-67-69	2948*/65-67-69	2974*/66-67-69
		2851**65-66-69	2953**74-77-77	2985**78-81-81	3007**80-84-84
52	2966	2913*/65-68-70	2992*/66-69-71	3019*/67-69-71	3046*/67-69-71
			3023**75-77-78	3055**78-81-82	3082**81-85-85
50	3043	2971*/65-69-72	3059*/67-71-73	3088*/68-71-73	3116*/69-71-73
			3088**75-77-78	3120**78-82-82	3150**81-86-86
48	3122	3030*/66-71-73	3129*/69-74-76	3159*/70-74-76	3188*/70-74-76
			3153**75-78-79	3187**78-82-83	3218**81-86-87
46	3199	3086*/66-72-75	3199*/71-76-78	3226*/71-76-78	3256*/72-76-78
			3217**75-78-80	3252**78-82-83	3284**81-87-87
44	3275	3139*/66-73-76	3275*/74-78-80	3293*/72-78-80	3326*/73-78-80
			3278**75-78-80	3316**78-83-84	3352**81-87-88
42	3349	3190F/66-75-78	3338*/75-79-81	3359*/74-80-82	3392*/74-80-82
				3379**78-83-85	3417**82-87-88
40	3423	3231F/66-76-79	3394*/75-81-83	3427*/74-81-83	3480*/75-81-83
				3452**78-83-85	3498**81-87-88
38	3498	3270F/66-77-80	3465*/75-81-83	3500*/74-81-83	3534*/75-81-83
				3517**78-83-85	3556**81-88-89
36	3566	3311F/67-78-81	3524*/75-82-84	3566*/76-83-85	3594*/76-83-85
				3573**78-84-86	3613**81-88-90
34	3630	3342B/66-78-82	3572*/75-83-86	3624*/78-85-87	3650*/77-85-87
					3666**81-89-90
32	3664	3362B/66-79-83	3599*/75-84-86	3652*/78-85-88	3680*/78-86-88
					3696**82-89-91
30	3664	3372B/67-79-83	3606*/75-84-86	3658*/79-85-88	3684*/78-86-88
					3701**82-89-91
28	3665	3382B/67-79-83	3612*/76-84-87	3665*/79-86-88	3689*/78-86-88
					3707**83-90-92
26	3666	3393B/67-79-83	3619*/76-84-87	3666*/79-86-88	3693*/78-86-88
				3670**80-86-88	3713**83-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.07 PERCENT FOR TODA AND 0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	10	219	0	40	696	0	50	1117	0
	54	1163	0	59	1237	0	72	1300	0
	73	1447	0	81	1619	0	99	1669	0
	110	2070	0	178	6292	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 16R

RJAA

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3667	3403B/68-80-84	3626*/77-84-87	3667*/78-86-88	3697*/78-86-88
				3676**80-87-89	3718**84-91-93
22	3668	3416B/68-80-84	3632*/77-85-87	3668*/78-86-88	3701*/78-86-88
				3681**81-87-89	3724**84-92-93
20	3668	3434B/68-80-84	3639*/78-85-87	3669*/77-86-88	3706*/78-86-88
				3687**81-88-90	3729**85-92-93
18	3669	3453B/68-80-84	3645*/78-85-87	3674*/78-86-88	3710*/78-86-88
				3693**82-88-90	3735**85-93-94
16	3670	3472B/68-80-84	3652*/79-85-88	3678*/78-86-88	3714*/78-86-88
				3698**82-89-91	3740**86-93-94
14	3671	3489B/68-80-84	3658*/79-85-88	3682*/78-86-88	3718*/79-86-88
				3704**83-89-91	3746**86-94-95
12	3672	3500B/69-81-84	3665*/79-86-88	3687*/78-86-88	3723*/79-86-88
				3710**83-90-91	3752**87-94-95
10	3672	3508B/69-81-84	3672*/80-86-88	3691*/78-86-88	3727*/79-86-88
				3716**84-90-92	3758**87-95-96
8	3673	3516B/70-81-84	3673*/80-86-88	3695*/78-86-88	3732*/79-86-88
				3722**84-91-92	3764**88-96-96
6	3674	3523B/70-81-84	3674*/79-86-88	3700*/78-86-88	3736*/79-86-88
				3684**81-87-89	3728**85-92-93
4	3674	3530B/71-82-85	3674*/79-86-88	3704*/78-86-88	3740*/79-86-88
				3689**81-87-89	3734**85-92-93
2	3675	3537B/71-82-85	3675*/78-86-88	3708*/78-86-88	3744*/79-86-88
				3695**82-88-90	3739**86-93-94
0	3675	3544B/72-82-85	3675*/78-86-88	3712*/78-86-88	3747*/79-86-88
				3701**83-89-90	3745**86-93-94
-2	3675	3551B/72-82-85	3679*/78-86-88	3715*/79-86-88	3751*/79-86-88
				3706**83-89-91	3750**87-94-95
-4	3675	3557B/73-82-85	3683*/78-86-88	3719*/79-86-88	3755*/79-86-88
				3712**84-90-91	3756**87-94-96
-6	3675	3564B/73-83-85	3687*/78-86-88	3723*/79-86-88	3758*/80-86-88
				3718**84-90-92	3761**88-95-96
-8	3676	3571B/74-83-86	3690*/78-86-88	3727*/79-86-88	3762*/80-86-88
				3724**85-91-92	3767**88-96-97
-10	3676	3578B/75-83-86	3694*/78-86-88	3730*/79-86-88	3766*/80-86-88
				3729**85-92-93	3773**89-96-97
					3787**89-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.07 PERCENT FOR TODA AND 0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	10	219	0	40	696	0	50	1117	0
	54	1163	0	59	1237	0	72	1300	0
	73	1447	0	81	1619	0	99	1669	0
	110	2070	0	178	6292	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 34L

RJAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2695	2705*/59-61-63	2793*/60-61-63	2821*/61-61-63	2848*/61-61-63
		2721**63-65-66	2804**73-77-77	2812**74-78-78	2812**75-78-78
58A	2753	2754*/60-63-65	2843*/61-63-65	2872*/62-63-65	2901*/63-63-65
		2772**64-66-67	2854**74-78-78	2869**75-80-80	2869**76-80-80
56A	2820	2820*/63-65-67	2902*/63-65-67	2932*/63-65-67	2961*/64-65-67
		2828**64-66-68	2911**74-78-78	2934**77-82-82	2936**77-82-82
54	2888	2882*/65-67-69	2961*/64-67-69	2992*/65-67-69	3023*/65-67-69
			2971**74-78-79	2995**78-82-82	3007**79-84-84
52	2966	2939*/65-68-71	3028*/66-69-71	3061*/66-69-71	3092*/67-69-71
			3038**74-79-80	3065**78-83-83	3090**81-87-87
50	3043	2993*/65-70-72	3094*/67-71-73	3127*/68-71-73	3160*/68-71-73
			3103**74-79-80	3132**78-83-84	3158**81-87-87
48	3122	3047*/65-71-74	3160*/69-74-76	3194*/69-74-76	3228*/70-74-76
			3169**75-80-81	3198**78-84-84	3226**81-87-88
46	3199	3098*/65-72-75	3224*/70-76-78	3259*/71-76-78	3295*/71-76-78
			3233**74-80-81	3264**78-84-85	3294**81-88-88
44	3275	3148*/65-74-77	3286*/71-78-80	3325*/72-78-80	3362*/73-78-80
			3297**74-80-82	3330**78-84-85	3361**81-88-89
42	3349	3196*/66-75-78	3349*/72-80-82	3387*/73-80-82	3438*/74-80-82
			3358**74-81-83	3392**78-85-86	3432**81-88-89
40	3423	3239F/66-76-79	3420*/74-81-83	3474*/74-81-83	3517*/75-81-83
				3472**78-85-86	3509**81-89-90
38	3498	3278F/66-77-80	3494*/74-81-83	3525*/74-81-83	3564*/75-81-83
				3532**77-85-87	3567**81-89-90
36	3566	3317B/66-78-81	3542*/74-82-85	3581*/75-83-85	3622*/76-83-85
				3588**78-85-87	3624**81-89-91
34	3630	3346B/66-78-82	3587*/74-83-86	3633*/76-85-87	3675*/77-85-87
				3641**78-86-88	3678**81-90-91
32	3664	3366B/66-79-83	3613*/75-84-87	3664*/77-86-88	3705*/77-86-88
				3670**78-86-88	3708**81-90-92
30	3664	3376B/66-79-83	3621*/75-84-87	3668*/77-86-88	3710*/77-86-88
				3675**78-87-89	3713**82-91-92
28	3665	3387B/66-79-83	3629*/75-85-87	3674*/77-86-88	3716*/78-86-88
				3681**79-87-89	3719**82-91-93
26	3666	3397B/67-80-83	3637*/76-85-87	3679*/77-86-88	3721*/78-86-88
				3686**79-88-90	3724**83-92-93
24	3667	3407B/67-80-84	3645*/76-85-87	3685*/77-86-88	3727*/78-86-88
				3692**80-88-90	3730**83-92-94
22	3668	3423B/67-80-84	3653*/77-85-88	3690*/77-86-88	3732*/78-86-88
				3697**80-89-91	3735**84-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34L 49 835 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 34L

RJAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3668	3441B/67-80-84	3661*/77-86-88	3696*/77-86-88	3738*/78-86-88
				3703**81-89-91	3741**84-93-95
18	3669	3460B/67-80-84	3669*/77-86-88	3702*/77-86-88	3744*/78-86-88
				3709**81-90-92	3746**85-94-95
16	3670	3479B/68-80-84	3670*/77-86-88	3707*/77-86-88	3749*/78-86-88
			3675**78-86-88	3714**82-90-92	3752**85-95-96
14	3671	3493B/68-80-84	3671*/76-86-88	3713*/77-86-88	3755*/78-86-88
			3681**78-87-89	3720**82-91-92	3757**86-95-96
12	3672	3503B/68-81-84	3676*/77-86-88	3719*/77-86-88	3760*/78-86-88
			3687**79-87-89	3726**83-91-93	3763**86-96-97
10	3672	3512B/69-81-84	3682*/77-86-88	3724*/78-86-88	3766*/78-86-88
			3692**79-88-90	3732**83-92-93	3769**87-96-97
8	3673	3520B/69-81-84	3687*/77-86-88	3730*/78-86-88	3772*/79-86-88
			3698**80-88-90	3738**84-93-94	3775**88-97-98
6	3674	3529B/70-82-85	3693*/77-86-88	3735*/78-86-88	3777*/79-86-88
			3704**81-89-91	3743**84-93-94	3781**88-97-98
4	3674	3537B/70-82-85	3699*/77-86-88	3741*/78-86-88	3783*/79-86-88
			3710**81-90-91	3749**85-94-95	3786**89-98-99
2	3675	3546B/70-82-85	3704*/77-86-88	3746*/78-86-88	3787F/79-86-88
			3715**82-90-92	3754**85-94-95	3787**88-98-99
0	3675	3555B/71-82-85	3709*/77-86-88	3752*/78-86-88	3787F/79-86-88
			3721**82-91-92	3760**86-95-96	3787**88-98-99
-2	3675	3563B/71-83-85	3715*/77-86-88	3757*/78-86-88	3787F/79-86-88
			3727**83-91-93	3766**86-96-96	3787**88-98-99
-4	3675	3572B/72-83-86	3720*/77-86-88	3762*/78-86-88	3787F/79-86-88
			3733**83-92-93	3771**87-96-97	3787**89-98-99
-6	3675	3580B/72-83-86	3725*/77-86-88	3767*/78-86-88	3787F/79-86-88
			3738**84-92-94	3777**88-97-98	3787**89-98-99
-8	3676	3589B/73-83-86	3730*/78-86-88	3773*/78-86-88	3787F/79-86-88
			3744**84-93-94	3783**88-97-98	3787**89-98-99
-10	3676	3597B/73-84-86	3736*/78-86-88	3778*/79-86-88	3787F/79-86-88
			3749**85-94-95	3787**89-98-99	3787**89-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

34L	49	835	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 34R

RJAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2695	2201F/38-43-49	2375F/47-50-54	2435F/50-52-56	2496F/53-54-58
58A	2753	2233F/39-44-50	2410F/48-51-55	2471F/51-53-57	2533F/54-55-59
56A	2820	2271F/40-45-51	2449F/49-52-57	2512F/52-54-59	2575F/55-57-60
54	2888	2309F/41-46-53	2490F/50-53-58	2553F/53-55-60	2617F/56-58-62
52	2966	2352F/42-48-54	2536F/51-54-60	2599F/54-57-61	2664F/57-59-63
50	3043	2394F/43-49-56	2580F/52-56-61	2645F/55-58-63	2711F/58-60-65
48	3122	2437F/43-50-57	2626F/53-57-62	2691F/56-59-64	2756F/58-61-66
46	3199	2476F/44-51-58	2668F/53-58-64	2734F/56-60-66	2797F/59-62-67
44	3275	2515F/45-52-60	2709F/54-59-65	2773F/57-61-67	2837F/60-63-69
42	3349	2555F/46-53-61	2749F/55-60-66	2812F/58-62-68	2877F/60-64-70
40	3423	2593F/47-54-62	2785F/55-61-67	2850F/58-63-69	2915F/61-65-71
38	3498	2628F/47-55-63	2819F/56-62-68	2884F/58-64-70	2950F/61-66-72
36	3566	2665F/48-56-64	2854F/56-63-70	2920F/59-65-71	2987F/62-67-73
34	3630	2695F/48-57-65	2885F/56-63-71	2951F/59-66-72	3019F/62-68-74
32	3664	2712F/49-57-66	2904F/57-64-71	2971F/59-66-73	3040F/62-68-75
30	3664	2720F/49-58-66	2913F/57-64-71	2980F/60-66-73	3049F/63-69-75
28	3665	2728F/49-58-66	2921F/57-64-72	2989F/60-67-73	3058F/63-69-75
26	3666	2736F/50-58-67	2930F/58-65-72	2998F/60-67-74	3067F/63-69-75
24	3667	2743F/50-58-67	2938F/58-65-72	3007F/61-67-74	3076F/64-70-76
22	3668	2751F/50-59-67	2947F/58-65-72	3016F/61-68-74	3085F/64-70-76
20	3668	2759F/50-59-67	2956F/59-66-72	3025F/61-68-74	3095F/64-70-76
18	3669	2767F/51-59-67	2965F/59-66-73	3034F/62-68-75	3104F/65-71-76
16	3670	2775F/51-59-68	2974F/59-66-73	3043F/62-69-75	3114F/65-71-77
14	3671	2783F/51-60-68	2983F/60-67-73	3053F/62-69-75	3124F/65-71-77
12	3672	2792F/52-60-68	2992F/60-67-73	3062F/63-69-75	3134F/66-71-77
10	3672	2800F/52-60-68	3001F/60-67-74	3072F/63-69-76	3144F/66-72-77
8	3673	2808F/52-61-69	3011F/61-67-74	3081F/63-70-76	3154F/66-72-78
6	3674	2817F/53-61-69	3020F/61-68-74	3091F/64-70-76	3164F/67-72-78
4	3674	2825F/53-61-69	3030F/61-68-74	3101F/64-70-76	3174F/67-73-78
2	3675	2834F/53-61-69	3039F/62-68-75	3111F/64-71-77	3184F/67-73-78
0	3675	2843F/53-62-70	3049F/62-69-75	3121F/65-71-77	3194F/68-73-79
-2	3675	2851F/54-62-70	3059F/62-69-75	3131F/65-71-77	3205F/68-74-79
-4	3675	2860F/54-62-70	3068F/63-69-75	3141F/66-72-77	3215F/68-74-79
-6	3675	2869F/54-63-70	3078F/63-70-76	3151F/66-72-78	3226F/69-74-79
-8	3676	2878F/55-63-70	3088F/63-70-76	3161F/66-72-78	3236F/69-75-80
-10	3676	2887F/55-63-71	3098F/64-70-76	3172F/67-73-78	3247F/70-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34R	55	1054	0	64	1251	0	68	1358	0
	89	1624	0	101	1758	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14L WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2587*/58-58-60	2661*/60-60-62	2685*/61-61-63	2708*/62-62-64
		2620**67-71-72	2708**73-77-77	2736**74-78-79	2764**75-79-79
58A	2760	2641*/59-59-62	2717*/62-62-64	2741*/63-63-65	2764*/63-63-65
		2671**68-72-73	2759**74-79-79	2788**76-80-80	2817**77-81-81
56A	2827	2703*/61-61-64	2779*/64-64-66	2804*/65-65-67	2827*/65-65-67
		2727**68-71-72	2818**75-78-79	2847**76-80-81	2877**79-83-83
54	2896	2765*/63-63-66	2843*/66-66-68	2869*/66-66-69	2893*/67-67-69
		2786**68-71-73	2881**76-80-80	2911**79-83-83	2942**81-85-85
52	2974	2834*/65-65-68	2915*/68-68-70	2941*/68-68-71	2967*/69-69-71
		2850**68-70-73	2952**77-81-82	2984**79-83-84	3015**83-87-87
50	3051	2902*/67-67-70	2985*/70-70-72	3012*/70-70-73	3039*/71-71-73
		2912**68-70-73	3019**77-80-81	3053**80-84-85	3086**83-87-87
48	3130	2973*/67-69-72	3058*/72-72-74	3086*/72-72-75	3113*/73-73-75
		2975**68-70-73	3086**77-80-82	3121**80-84-85	3156**84-87-88
46	3207	3034*/68-70-74	3128*/73-73-76	3156*/74-74-77	3184*/75-75-77
			3149**77-80-81	3187**80-83-85	3224**84-87-88
44	3283	3092*/68-72-75	3196*/75-75-78	3225*/76-76-79	3254*/77-77-79
			3211**77-80-82	3250**80-83-85	3290**84-87-88
42	3357	3149*/68-73-77	3262*/77-77-80	3292*/78-78-80	3323*/79-79-81
			3269**77-80-83	3311**81-83-85	3353**84-86-88
40	3433	3203*/68-75-78	3327*/77-79-81	3359*/80-80-82	3390*/80-80-83
			3329**77-81-83	3371**81-84-86	3416**84-86-88
38	3506	3254*/68-76-80	3384*/77-80-83	3427*/81-81-83	3467*/81-81-83
			3385**77-81-84	3437**80-84-86	3494**83-87-89
36	3574	3306B/67-77-81	3452*/77-81-83	3501*/80-81-84	3533*/82-82-84
			3454**77-83-85	3506**80-85-87	3550**83-87-89
34	3639	3351B/66-78-82	3512*/77-81-84	3554*/80-82-85	3592*/84-84-86
				3557**80-86-88	3602**84-88-90
32	3667	3370B/66-79-83	3536*/77-82-85	3579*/81-83-86	3618*/84-84-87
				3582**80-87-89	3628**84-88-90
30	3668	3378B/67-79-83	3541*/78-82-85	3584*/81-83-86	3622*/84-84-87
				3587**81-87-89	3633**84-89-91
28	3669	3383B/67-79-83	3546*/78-82-85	3588*/82-83-86	3625*/84-84-87
			3547**78-84-87	3593**81-87-89	3638**85-89-91
26	3670	3389B/68-79-83	3550*/79-82-85	3593*/82-83-86	3627*/84-84-87
			3552**78-85-87	3598**82-87-89	3643**85-90-92
24	3671	3394B/68-79-83	3555*/79-82-85	3597*/83-84-86	3630*/85-85-87
			3557**79-85-88	3603**82-88-90	3649**86-90-92
22	3671	3400B/69-80-83	3560*/80-82-85	3601*/83-84-86	3633*/85-85-87
			3562**79-86-88	3608**83-88-90	3654**86-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3405B/69-80-84	3564*/80-83-85	3604*/84-84-86	3636*/85-85-87
			3568**80-86-89	3614**83-88-90	3659**87-91-93
18	3673	3411B/70-80-84	3569*/81-83-86	3607*/84-84-86	3639*/85-85-87
			3573**80-86-89	3619**84-89-91	3665**87-92-94
16	3674	3418B/70-80-84	3573*/81-83-86	3610*/84-84-87	3642*/85-85-87
			3578**81-87-89	3624**84-89-91	3670**88-93-94
14	3675	3426B/71-80-84	3578*/82-83-86	3613*/84-84-87	3645*/85-85-87
			3583**81-87-89	3629**85-90-92	3676**88-93-94
12	3676	3434B/71-80-84	3582*/82-83-86	3616*/84-84-87	3648*/85-85-87
			3589**82-87-89	3635**85-90-92	3682**89-94-95
10	3677	3441B/72-80-84	3586*/83-83-86	3619*/84-84-87	3651*/85-85-88
			3594**82-87-90	3640**86-91-93	3687**89-94-95
8	3677	3448B/72-80-84	3589*/83-83-86	3622*/84-84-87	3654*/85-85-88
			3600**83-88-90	3646**87-92-93	3693**90-94-95
6	3678	3456B/73-80-84	3592*/83-83-86	3625*/84-84-87	3657*/85-85-88
			3605**84-89-91	3652**87-92-94	3699**91-95-96
4	3678	3462B/73-80-84	3594*/83-83-86	3627*/84-84-87	3660*/85-85-88
			3610**84-89-91	3657**88-93-94	3704**91-95-96
2	3679	3469B/74-80-84	3597*/84-84-86	3630*/85-85-87	3662*/85-85-88
			3615**85-90-92	3662**88-93-95	3710**92-95-96
0	3679	3475B/74-80-84	3599*/84-84-86	3632*/85-85-87	3665*/86-86-88
		3477**74-82-86	3620**85-91-93	3668**89-94-95	3715**92-96-97
-2	3679	3482B/75-80-84	3602*/84-84-86	3635*/85-85-87	3667*/86-86-88
		3483**75-83-86	3626**86-91-93	3673**89-94-95	3720**93-96-97
-4	3680	3487B/75-80-84	3604*/84-84-86	3637*/85-85-87	3669*/86-86-88
		3489**75-84-86	3631**86-92-93	3679**90-94-95	3726**93-96-97
-6	3680	3492B/76-80-84	3607*/84-84-86	3639*/85-85-87	3671*/86-86-88
		3495**76-84-87	3636**87-92-94	3684**90-94-95	3731**94-98-98
-8	3680	3497B/77-81-84	3609*/84-84-87	3642*/85-85-87	3673*/86-86-88
		3500**77-84-87	3642**87-93-94	3689**91-95-96	3736**95-98-99
-10	3680	3501B/77-81-84	3611*/84-84-87	3644*/85-85-87	3676*/86-86-88
		3505**77-84-87	3647**88-93-94	3694**92-95-96	3742**95-99-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 430 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET
14L	177	3084	0	226	3111	0
					253	25118

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2549*/56-56-59	2627*/59-59-62	2652*/60-60-62	2677*/61-61-63
		2569**61-64-66	2662**69-72-73	2692**71-74-75	2721**72-76-76
58A	2760	2602*/58-58-61	2682*/61-61-63	2707*/62-62-64	2732*/62-62-65
		2617**61-63-66	2713**70-73-74	2743**72-75-76	2773**74-78-78
56A	2827	2662*/60-60-63	2743*/62-62-65	2769*/63-63-66	2795*/64-64-66
		2671**61-63-66	2770**70-73-74	2802**73-76-77	2832**75-78-79
54	2896	2723*/61-61-65	2806*/64-64-67	2833*/65-65-68	2859*/66-66-68
		2726**61-63-66	2830**70-73-74	2863**73-77-77	2896**76-80-80
52	2974	2787*/61-63-67	2876*/66-66-69	2904*/67-67-70	2931*/68-68-70
			2895**70-73-74	2931**74-76-77	2965**77-80-80
50	3051	2847*/61-65-68	2945*/68-68-71	2973*/69-69-72	3001*/70-70-72
			2958**71-73-75	2995**74-76-78	3032**77-79-81
48	3130	2907*/61-67-70	3016*/70-70-73	3045*/71-71-74	3074*/72-72-74
			3022**71-73-75	3060**74-76-78	3098**77-79-81
46	3207	2964*/61-68-72	3082*/71-72-75	3114*/73-73-76	3144*/74-74-76
			3083**71-73-76	3122**74-76-79	3161**77-79-81
44	3283	3008F/62-69-73	3142*/71-74-77	3181*/74-75-78	3212*/76-76-78
				3183**74-77-79	3223**77-80-82
42	3357	3049F/62-70-74	3200*/71-75-78	3241*/74-76-79	3278*/77-78-80
					3282**77-80-82
40	3433	3089F/62-71-75	3256*/71-76-80	3299*/74-78-81	3341*/77-79-82
					3342**77-80-83
38	3506	3126F/63-72-77	3309*/71-78-81	3354*/74-79-82	3398*/77-80-83
					3399**77-82-84
36	3574	3164F/63-73-78	3364*/71-79-82	3410*/74-80-83	3471*/77-81-83
34	3639	3198F/63-74-79	3406F/71-80-84	3481*/74-80-83	3527*/77-82-84
32	3667	3217F/63-74-79	3442F/71-80-84	3506*/74-81-84	3551*/77-82-85
30	3668	3226F/64-74-79	3457*/71-80-84	3511*/74-81-84	3556*/78-82-85
28	3669	3235F/64-75-80	3464*/72-80-84	3516*/75-81-84	3561*/78-82-85
26	3670	3245F/64-75-80	3471*/72-80-84	3521*/75-81-84	3566*/79-83-85
					3567**79-85-87
24	3671	3254F/65-75-80	3478*/73-80-84	3526*/76-81-84	3571*/79-83-86
					3572**79-85-88
22	3671	3263F/65-76-80	3485*/73-80-84	3531*/76-82-85	3576*/80-83-86
					3578**80-86-88
20	3672	3272F/65-76-81	3491*/73-80-84	3536*/77-82-85	3580*/80-83-86
					3583**80-86-89
18	3673	3282F/66-76-81	3496*/74-80-84	3541*/77-82-85	3585*/81-83-86
					3588**81-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 420 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3604 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A2)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

16	3674	3292F/66-77-81	3501*/74-81-84	3546*/78-82-85	3590*/81-83-86
				3547**78-84-87	3594**81-87-90
14	3675	3302F/66-77-81	3506*/75-81-84	3551*/78-82-85	3594*/82-83-86
				3552**78-85-87	3599**82-87-90
12	3676	3312F/67-77-82	3511*/75-81-84	3556*/79-82-85	3599*/82-84-86
				3558**79-85-88	3605**82-87-90
10	3677	3322F/67-77-82	3516*/76-81-84	3561*/79-82-85	3603*/83-84-86
				3563**79-86-88	3611**83-88-90
8	3677	3333F/67-78-82	3521*/76-81-84	3565*/80-83-85	3608*/84-84-86
				3569**80-86-89	3616**83-88-90
6	3678	3343F/68-78-82	3526*/77-81-84	3570*/80-83-86	3611*/84-84-87
			3527**77-84-87	3574**80-86-89	3621**84-89-91
4	3678	3353F/68-78-82	3530*/77-82-85	3575*/81-83-86	3614*/84-84-87
			3532**77-84-87	3580**81-87-89	3627**84-89-91
2	3679	3364F/68-79-83	3535*/78-82-85	3579*/82-83-86	3617*/84-84-87
			3537**78-85-88	3585**81-87-89	3632**85-90-92
0	3679	3375F/69-79-83	3540*/78-82-85	3583*/82-83-86	3619*/84-84-87
			3542**78-86-88	3590**82-87-89	3637**86-90-92
-2	3679	3384*/69-79-83	3544*/79-82-85	3587*/83-83-86	3622*/84-84-87
			3548**79-86-88	3595**82-88-90	3643**86-91-92
-4	3680	3389*/69-79-83	3548*/80-82-85	3590*/83-83-86	3624*/84-84-87
			3553**79-86-88	3600**83-88-90	3648**87-92-93
-6	3680	3394*/70-79-83	3553*/80-82-85	3593*/83-83-86	3627*/84-84-87
			3558**80-86-88	3605**84-89-91	3653**87-92-94
-8	3680	3399*/70-80-83	3557*/81-82-85	3596*/83-83-86	3629*/85-85-87
			3563**81-86-89	3611**84-89-91	3659**88-93-94
-10	3680	3404*/71-80-84	3561*/81-82-85	3598*/84-84-86	3631*/85-85-87
			3568**81-87-89	3616**85-90-92	3664**88-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3604 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A2)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A3) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2356F/45-49-54	2532F/54-56-59	2577*/57-57-60	2605*/58-58-61
				2579**57-59-61	2616**60-62-64
58A	2760	2391F/46-50-55	2570F/55-57-60	2627*/58-59-62	2658*/60-60-63
					2665**61-62-65
56A	2827	2431F/47-51-56	2613F/56-58-61	2675F/58-60-63	2719*/62-62-64
					2721**62-63-66
54	2896	2473F/48-53-58	2657F/57-59-63	2720F/59-61-65	2778*/62-63-66
52	2974	2519F/49-54-59	2705F/58-60-64	2766F/60-62-66	2828F/63-65-68
50	3051	2565F/50-55-61	2748F/58-62-66	2810F/61-64-67	2872F/63-66-69
48	3130	2610F/51-56-62	2792F/59-63-67	2853F/61-65-69	2917F/64-67-70
46	3207	2651F/52-57-63	2832F/59-64-68	2894F/62-66-70	2959F/64-68-72
44	3283	2688F/52-58-65	2871F/60-65-69	2935F/62-67-71	3000F/65-69-73
42	3357	2726F/52-59-66	2911F/60-66-71	2976F/63-68-72	3041F/65-70-74
40	3433	2762F/53-60-67	2949F/61-66-72	3015F/63-69-74	3081F/66-71-75
38	3506	2795F/53-61-68	2985F/61-67-73	3051F/64-70-75	3118F/66-72-76
36	3574	2830F/53-62-69	3022F/61-68-74	3089F/64-70-76	3157F/67-73-77
34	3639	2860F/54-63-70	3054F/62-69-75	3122F/64-71-77	3191F/67-73-78
32	3667	2877F/54-63-70	3073F/62-70-76	3141F/65-72-77	3211F/67-74-79
30	3668	2885F/54-63-71	3082F/62-70-76	3150F/65-72-77	3220F/68-74-79
28	3669	2894F/54-64-71	3091F/63-70-76	3159F/65-72-78	3230F/68-75-80
26	3670	2902F/55-64-71	3100F/63-70-76	3169F/66-73-78	3240F/68-75-80
24	3671	2910F/55-64-71	3109F/63-71-76	3178F/66-73-78	3249F/69-75-80
22	3671	2918F/55-64-72	3118F/64-71-77	3188F/66-73-78	3259F/69-76-80
20	3672	2927F/56-65-72	3128F/64-71-77	3198F/67-74-79	3269F/69-76-81
18	3673	2935F/56-65-72	3137F/64-72-77	3207F/67-74-79	3279F/70-76-81
16	3674	2944F/56-65-72	3146F/65-72-77	3217F/67-74-79	3290F/70-76-81
14	3675	2953F/57-65-72	3156F/65-72-78	3227F/68-74-79	3300F/70-77-81
12	3676	2962F/57-66-73	3166F/65-73-78	3237F/68-75-80	3311F/71-77-81
10	3677	2970F/57-66-73	3176F/66-73-78	3247F/68-75-80	3322F/71-77-82
8	3677	2979F/58-66-73	3186F/66-73-78	3258F/69-75-80	3333F/72-78-82
6	3678	2988F/58-67-73	3195F/66-73-79	3268F/69-76-80	3344F/72-78-82
4	3678	2997F/58-67-74	3205F/67-74-79	3278F/69-76-81	3355F/72-78-82
2	3679	3006F/58-67-74	3215F/67-74-79	3289F/70-76-81	3367F/73-79-83
0	3679	3015F/59-68-74	3226F/67-74-79	3300F/70-77-81	3378F/73-79-83
-2	3679	3025F/59-68-74	3236F/68-75-80	3311F/71-77-81	3389F/73-79-83
-4	3680	3034F/59-68-75	3246F/68-75-80	3322F/71-77-82	3401F/74-80-83
-6	3680	3043F/60-68-75	3256F/68-75-80	3333F/71-78-82	3414F/74-80-84
-8	3680	3052F/60-69-75	3267F/69-76-80	3344F/72-78-82	3436F/74-80-84
-10	3680	3062F/61-69-75	3277F/69-76-81	3355F/72-78-82	3458F/74-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2832 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A3)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2209F/39-44-49	2382F/48-50-54	2442F/51-52-56	2503F/53-55-58
58A	2760	2242F/40-45-50	2417F/48-51-56	2478F/51-53-57	2540F/54-56-59
56A	2827	2279F/41-46-52	2457F/49-52-57	2519F/52-55-59	2582F/55-57-61
54	2896	2318F/41-47-53	2499F/50-53-58	2562F/53-56-60	2625F/56-58-62
52	2974	2361F/42-48-55	2544F/51-55-60	2608F/54-57-62	2673F/57-59-63
50	3051	2404F/43-49-56	2589F/52-56-61	2654F/55-58-63	2720F/58-61-65
48	3130	2446F/44-50-57	2634F/53-57-63	2700F/56-59-64	2765F/59-62-66
46	3207	2486F/45-51-59	2677F/54-58-64	2742F/57-61-66	2805F/60-63-68
44	3283	2525F/46-52-60	2719F/55-59-65	2782F/58-62-67	2845F/60-64-69
42	3357	2565F/46-53-61	2758F/56-60-67	2821F/58-62-68	2886F/61-65-70
40	3433	2603F/47-54-62	2795F/56-61-68	2858F/59-63-69	2924F/61-66-71
38	3506	2638F/48-55-64	2828F/56-62-69	2893F/59-64-70	2959F/62-66-72
36	3574	2676F/49-56-65	2863F/57-63-70	2929F/59-65-72	2996F/62-67-73
34	3639	2704F/49-57-66	2894F/57-64-71	2960F/60-66-73	3028F/62-68-74
32	3667	2720F/49-58-66	2912F/57-64-71	2979F/60-66-73	3047F/63-69-75
30	3668	2728F/50-58-66	2920F/58-64-72	2987F/60-67-73	3056F/63-69-75
28	3669	2736F/50-58-67	2929F/58-65-72	2996F/61-67-74	3065F/63-69-75
26	3670	2743F/50-58-67	2937F/58-65-72	3005F/61-67-74	3074F/64-70-76
24	3671	2751F/50-59-67	2946F/59-65-72	3014F/61-68-74	3083F/64-70-76
22	3671	2759F/51-59-67	2955F/59-66-72	3023F/62-68-74	3093F/64-70-76
20	3672	2767F/51-59-67	2964F/59-66-73	3032F/62-68-74	3102F/65-70-76
18	3673	2775F/51-59-68	2973F/59-66-73	3042F/62-68-75	3112F/65-71-77
16	3674	2783F/52-60-68	2982F/60-66-73	3051F/63-69-75	3121F/65-71-77
14	3675	2792F/52-60-68	2991F/60-67-73	3060F/63-69-75	3131F/66-71-77
12	3676	2800F/52-60-68	3000F/60-67-74	3070F/63-69-75	3141F/66-72-77
10	3677	2808F/52-61-69	3010F/61-67-74	3079F/64-70-76	3151F/66-72-78
8	3677	2817F/53-61-69	3019F/61-68-74	3089F/64-70-76	3161F/67-72-78
6	3678	2825F/53-61-69	3028F/61-68-74	3099F/64-70-76	3171F/67-73-78
4	3678	2834F/53-61-69	3038F/62-68-75	3109F/65-71-76	3181F/68-73-78
2	3679	2842F/54-62-70	3047F/62-69-75	3118F/65-71-77	3192F/68-73-79
0	3679	2851F/54-62-70	3057F/63-69-75	3128F/65-71-77	3202F/68-74-79
-2	3679	2859F/54-62-70	3066F/63-69-75	3138F/66-72-77	3212F/69-74-79
-4	3680	2868F/55-63-70	3076F/63-70-76	3148F/66-72-77	3223F/69-74-79
-6	3680	2877F/55-63-70	3086F/64-70-76	3159F/66-72-78	3234F/69-75-80
-8	3680	2886F/55-63-71	3096F/64-70-76	3169F/67-73-78	3244F/70-75-80
-10	3680	2895F/56-64-71	3106F/64-71-76	3179F/67-73-78	3255F/70-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2520 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A4)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14L(A5) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	1976F/28-34-42	2143F/37-41-47	2202F/40-43-49	2262F/43-46-51
58A	2760	2005F/29-35-43	2175F/38-42-48	2234F/41-44-50	2295F/44-47-52
56A	2827	2038F/29-36-44	2211F/39-43-50	2271F/42-45-51	2332F/45-48-53
54	2896	2073F/30-37-46	2248F/40-44-51	2309F/43-46-53	2371F/46-49-55
52	2974	2111F/31-38-47	2289F/40-45-52	2351F/44-48-54	2414F/47-50-56
50	3051	2149F/32-39-48	2329F/41-46-54	2392F/45-49-56	2456F/48-51-57
48	3130	2187F/32-40-50	2370F/42-47-55	2433F/45-50-57	2498F/48-52-59
46	3207	2222F/33-41-51	2407F/43-48-56	2472F/46-51-58	2537F/49-53-60
44	3283	2257F/34-42-52	2444F/44-49-58	2510F/47-52-60	2576F/50-54-61
42	3357	2293F/35-43-53	2482F/44-50-59	2549F/48-53-61	2616F/51-55-63
40	3433	2327F/35-44-55	2519F/45-51-60	2586F/48-54-62	2654F/52-56-64
38	3506	2359F/36-45-56	2553F/46-52-61	2620F/49-55-63	2689F/52-57-65
36	3574	2392F/36-46-57	2589F/47-53-62	2657F/50-56-64	2727F/53-58-66
34	3639	2420F/37-47-58	2619F/47-54-63	2688F/51-56-65	2757F/54-59-67
32	3667	2436F/37-47-58	2636F/48-55-64	2706F/51-57-66	2775F/54-59-68
30	3668	2444F/38-47-59	2645F/48-55-64	2715F/51-57-66	2783F/54-60-68
28	3669	2451F/38-48-59	2653F/48-55-64	2723F/52-58-66	2791F/55-60-68
26	3670	2459F/39-48-59	2662F/49-55-65	2732F/52-58-67	2800F/55-60-68
24	3671	2467F/39-48-59	2670F/49-56-65	2741F/53-58-67	2808F/55-61-69
22	3671	2474F/39-49-59	2679F/50-56-65	2750F/53-59-67	2817F/56-61-69
20	3672	2482F/40-49-60	2688F/50-56-65	2758F/53-59-67	2826F/56-61-69
18	3673	2490F/40-49-60	2696F/50-57-66	2766F/54-59-67	2834F/56-61-69
16	3674	2498F/40-49-60	2705F/51-57-66	2775F/54-59-68	2843F/57-62-70
14	3675	2506F/41-50-60	2714F/51-57-66	2784F/54-60-68	2852F/57-62-70
12	3676	2514F/41-50-61	2723F/51-58-66	2792F/54-60-68	2861F/57-62-70
10	3677	2522F/41-50-61	2733F/52-58-67	2801F/55-60-68	2870F/58-63-70
8	3677	2531F/42-51-61	2742F/52-58-67	2810F/55-61-69	2879F/58-63-70
6	3678	2539F/42-51-61	2751F/53-59-67	2819F/55-61-69	2888F/58-63-71
4	3678	2547F/43-51-61	2759F/53-59-67	2828F/56-61-69	2897F/59-64-71
2	3679	2556F/43-52-62	2768F/53-59-68	2837F/56-62-69	2907F/59-64-71
0	3679	2564F/43-52-62	2777F/54-59-68	2846F/56-62-70	2916F/59-64-71
-2	3679	2573F/44-52-62	2785F/54-60-68	2855F/57-62-70	2926F/60-65-72
-4	3680	2581F/44-52-62	2794F/54-60-68	2864F/57-62-70	2935F/60-65-72
-6	3680	2590F/45-53-63	2803F/55-60-68	2873F/57-63-70	2945F/60-65-72
-8	3680	2599F/45-53-63	2812F/55-61-69	2882F/58-63-71	2954F/61-66-72
-10	3680	2607F/45-53-63	2821F/55-61-69	2892F/58-63-71	2964F/61-66-73

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2070 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A5)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14R WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2688*/61-61-63	2758*/60-62-64	2782*/61-62-64	2805*/61-62-64
		2698**65-67-69	2793**71-74-75	2819**74-79-79	2819**75-79-79
58A	2760	2741*/63-63-65	2810*/62-63-65	2835*/62-63-65	2860*/63-63-65
		2749**65-68-69	2845**72-75-76	2875**77-80-80	2876**76-80-80
56A	2827	2801*/64-64-67	2871*/63-65-67	2897*/64-65-67	2922*/64-65-67
		2806**65-67-69	2905**73-76-77	2936**78-81-81	2943**78-82-82
54	2896	2864*/65-66-68	2934*/64-67-69	2961*/65-67-69	2987*/66-67-69
		2865**65-67-69	2968**75-77-78	2997**78-82-82	3015**79-85-85
52	2974	2927*/65-68-70	3005*/66-70-72	3032*/67-70-72	3059*/67-70-72
			3036**75-78-79	3067**78-82-82	3095**81-86-86
50	3051	2986*/66-70-72	3073*/67-72-74	3101*/68-72-74	3130*/69-72-74
			3101**75-78-79	3133**78-82-83	3162**81-87-87
48	3130	3045*/66-71-74	3142*/69-74-76	3172*/69-74-76	3201*/70-74-76
			3166**75-78-80	3199**78-83-84	3230**82-87-87
46	3207	3100*/66-73-75	3209*/70-76-78	3240*/71-76-78	3270*/72-76-78
			3230**75-79-80	3265**78-83-84	3298**82-87-88
44	3283	3155*/66-74-77	3283*/73-78-80	3308*/72-78-80	3340*/73-78-80
			3293**75-79-81	3330**78-83-85	3365**82-88-88
42	3357	3204F/66-75-78	3353*/75-80-82	3373*/73-80-82	3407*/74-80-82
				3392**78-84-85	3438**81-88-89
40	3433	3245F/66-76-79	3410*/75-81-83	3448*/74-81-83	3495*/75-81-83
				3471**78-84-86	3512**81-88-89
38	3506	3284F/66-77-81	3487*/74-81-83	3514*/74-82-84	3548*/75-82-84
				3531**78-84-86	3570**81-89-90
36	3574	3323B/66-78-82	3540*/75-82-85	3574*/75-83-85	3608*/76-83-85
				3587**78-85-87	3627**81-89-90
34	3639	3352B/66-78-82	3588*/75-83-86	3639*/78-85-87	3665*/77-85-87
					3681**81-89-91
32	3667	3370B/66-79-83	3612*/75-84-87	3664*/78-86-88	3691*/77-86-88
					3707**82-90-91
30	3668	3380B/66-79-83	3619*/75-84-87	3668*/78-86-88	3696*/78-86-88
				3670**79-86-88	3712**82-90-92
28	3669	3391B/66-79-83	3625*/76-84-87	3669*/78-86-88	3700*/78-86-88
				3676**79-86-89	3718**83-91-92
26	3670	3401B/67-80-83	3632*/76-85-87	3670*/77-86-88	3704*/78-86-88
				3681**80-87-89	3724**83-91-93
24	3671	3412B/67-80-84	3638*/77-85-87	3672*/77-86-88	3708*/78-86-88
				3687**80-87-89	3729**84-92-93
22	3671	3430B/67-80-84	3645*/77-85-87	3676*/77-86-88	3713*/78-86-88
				3693**81-88-90	3735**84-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3449B/67-80-84	3652*/78-85-88	3681*/77-86-88	3717*/78-86-88
				3698**81-89-90	3740**85-93-94
18	3673	3467B/67-80-84	3658*/78-85-88	3685*/77-86-88	3721*/78-86-88
				3704**82-89-91	3746**85-94-95
16	3674	3487B/68-80-84	3665*/79-86-88	3689*/77-86-88	3726*/78-86-88
				3710**82-90-91	3751**86-94-95
14	3675	3497B/68-81-84	3671*/79-86-88	3694*/77-86-88	3730*/78-86-88
				3716**83-90-92	3757**86-95-96
12	3676	3508B/68-81-84	3676*/79-86-88	3698*/78-86-88	3734*/78-86-88
			3678**79-86-88	3722**83-91-92	3763**87-95-96
10	3677	3519B/69-81-84	3677*/79-86-88	3703*/78-86-88	3739*/79-86-88
			3684**80-87-89	3728**84-91-93	3769**87-96-97
8	3677	3527B/69-81-85	3677*/78-86-88	3707*/78-86-88	3743*/79-86-88
			3689**80-87-89	3734**84-92-93	3775**88-96-97
6	3678	3534B/70-82-85	3678*/78-86-88	3711*/78-86-88	3747*/79-86-88
			3695**81-88-90	3739**85-92-94	3781**88-97-98
4	3678	3541B/70-82-85	3679*/77-86-88	3715*/78-86-88	3751*/79-86-88
			3701**82-88-90	3745**85-93-94	3786**89-98-98
2	3679	3548B/71-82-85	3683*/77-86-88	3719*/78-86-88	3755*/79-86-88
			3707**82-89-91	3750**86-94-95	3787**89-98-98
0	3679	3555B/71-82-85	3687*/77-86-88	3723*/78-86-88	3759*/79-86-88
			3712**83-89-91	3756**86-94-95	3787**88-98-98
-2	3679	3561B/72-82-85	3691*/77-86-88	3727*/78-86-88	3763*/79-86-88
			3718**83-90-92	3762**87-95-96	3787**88-98-98
-4	3680	3568B/72-83-86	3694*/77-86-88	3731*/78-86-88	3766*/79-86-88
			3724**84-91-92	3767**87-95-96	3787**88-98-98
-6	3680	3575B/73-83-86	3698*/78-86-88	3735*/78-86-88	3770*/79-86-88
			3730**84-91-93	3773**88-96-97	3787**88-98-98
-8	3680	3582B/73-83-86	3702*/78-86-88	3738*/79-86-88	3774*/79-86-88
			3735**85-92-93	3779**89-97-97	3787**88-98-98
-10	3680	3589B/74-83-86	3706*/78-86-88	3742*/79-86-88	3777*/80-86-88
			3741**85-92-94	3784**89-97-98	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
14R 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2674*/61-61-63	2747*/60-62-64	2772*/61-62-64	2795*/61-62-64
		2682**63-66-67	2778**72-72-73	2809**74-77-77	2819**75-79-79
58A	2760	2726*/62-62-64	2799*/62-63-65	2825*/62-63-65	2850*/63-63-65
		2732**64-65-67	2829**71-74-74	2861**74-78-78	2876**76-80-80
56A	2827	2786*/64-64-66	2860*/63-65-67	2886*/64-65-67	2912*/64-65-67
		2788**64-65-67	2889**72-75-76	2921**76-79-79	2943**78-82-82
54	2896	2845*/64-66-68	2922*/64-67-69	2949*/65-67-69	2976*/66-67-69
			2951**73-75-76	2983**76-79-80	3010**79-84-84
52	2974	2905*/64-67-70	2992*/66-70-72	3020*/67-70-72	3048*/67-70-72
			3019**73-75-77	3051**76-80-80	3080**80-84-84
50	3051	2963*/64-69-71	3060*/67-72-74	3089*/68-72-74	3118*/69-72-74
			3083**73-76-77	3117**76-80-81	3148**80-84-85
48	3130	3021*/64-70-73	3130*/69-74-76	3159*/69-74-76	3188*/70-74-76
			3149**73-76-78	3183**76-81-82	3215**80-85-85
46	3207	3076*/64-72-75	3207*/72-76-78	3226*/71-76-78	3257*/72-76-78
			3211**73-76-78	3247**76-81-82	3280**80-85-86
44	3283	3121F/64-73-76	3270*/73-78-80	3293*/72-78-80	3326*/73-78-80
				3311**77-81-83	3348**80-85-87
42	3357	3163F/65-74-77	3328*/73-79-81	3358*/73-80-82	3392*/74-80-82
				3374**77-82-83	3411**80-86-87
40	3433	3204F/65-75-78	3384*/73-80-83	3433*/75-81-83	3478*/75-81-83
				3443**76-82-84	3494**79-86-87
38	3506	3242F/65-76-80	3450*/73-81-83	3506*/75-82-84	3533*/75-82-84
				3511**76-82-84	3551**80-86-88
36	3574	3282F/66-77-81	3514*/73-81-84	3565*/76-83-85	3593*/76-83-85
					3607**80-87-89
34	3639	3319F/66-77-82	3562*/73-83-85	3614*/76-84-87	3649*/77-85-87
					3660**80-87-89
32	3667	3339F/66-78-82	3586*/73-83-86	3638*/77-85-87	3675*/77-86-88
					3686**80-88-90
30	3668	3349F/66-78-82	3592*/74-83-86	3645*/77-85-87	3680*/78-86-88
					3692**80-88-90
28	3669	3359F/67-78-83	3599*/74-84-86	3651*/78-85-88	3684*/78-86-88
					3697**81-89-90
26	3670	3369F/67-79-83	3605*/75-84-86	3658*/78-85-88	3688*/78-86-88
					3703**81-89-91
24	3671	3379F/67-79-83	3612*/75-84-87	3665*/78-86-88	3693*/78-86-88
					3708**82-90-91
22	3671	3389F/68-79-83	3619*/76-84-87	3671*/79-86-88	3697*/78-86-88
					3714**82-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3887 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(C2) 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3399F/68-80-83	3625*/76-84-87	3672*/78-86-88	3701*/78-86-88
				3677**79-86-88	3720**83-91-92
18	3673	3409F/68-80-84	3632*/76-85-87	3673*/78-86-88	3706*/78-86-88
				3683**80-87-89	3726**83-91-93
16	3674	3426F/68-80-84	3639*/77-85-87	3674*/77-86-88	3710*/78-86-88
				3688**80-87-89	3731**84-92-93
14	3675	3445F/68-80-84	3645*/77-85-87	3678*/77-86-88	3714*/78-86-88
				3694**81-88-90	3737**84-92-94
12	3676	3464F/69-80-84	3652*/78-85-88	3682*/78-86-88	3719*/78-86-88
				3700**81-88-90	3743**85-93-94
10	3677	3485F/69-80-84	3659*/78-85-88	3687*/78-86-88	3723*/79-86-88
				3706**82-89-91	3749**86-94-95
8	3677	3496F/69-80-84	3665*/79-86-88	3691*/78-86-88	3728*/79-86-88
				3712**82-90-91	3754**86-94-95
6	3678	3506F/69-81-84	3672*/79-86-88	3696*/78-86-88	3732*/79-86-88
				3718**83-90-92	3760**87-95-96
4	3678	3517F/70-81-84	3678*/80-86-88	3700*/78-86-88	3736*/79-86-88
				3724**83-91-92	3766**87-95-96
2	3679	3525*/70-81-84	3679*/79-86-88	3704*/78-86-88	3740*/79-86-88
			3684**80-87-89	3729**84-91-93	3772**88-96-97
0	3679	3532*/70-82-85	3679*/79-86-88	3708*/78-86-88	3744*/79-86-88
			3690**81-87-89	3735**85-92-93	3777**88-97-97
-2	3679	3539*/71-82-85	3679*/78-86-88	3712*/78-86-88	3748*/79-86-88
			3695**81-88-90	3741**85-92-94	3783**89-97-98
-4	3680	3545*/71-82-85	3680*/78-86-88	3715*/78-86-88	3752*/79-86-88
			3701**82-88-90	3746**86-93-94	3787**89-98-98
-6	3680	3552*/72-82-85	3682*/78-86-88	3719*/78-86-88	3755*/79-86-88
			3707**82-89-91	3752**86-94-95	3787**89-98-98
-8	3680	3558*/72-82-85	3686*/78-86-88	3723*/79-86-88	3759*/79-86-88
			3713**83-89-91	3757**87-94-95	3787**88-98-98
-10	3680	3565*/73-83-85	3690*/78-86-88	3727*/79-86-88	3763*/80-86-88
			3718**84-90-92	3763**87-95-96	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3887 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
14R(C2) 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C3) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2630*/58-59-62	2714*/60-62-64	2740*/61-62-64	2765*/61-62-64
			2731**66-69-70	2764**69-72-72	2796**72-75-75
58A	2760	2677*/59-60-63	2765*/62-63-65	2792*/62-63-65	2818*/63-63-65
			2781**67-69-70	2815**70-72-73	2847**73-76-76
56A	2827	2728*/59-62-65	2827*/63-65-67	2852*/64-65-67	2879*/64-65-67
			2840**68-69-71	2874**70-72-73	2907**74-77-77
54	2896	2780*/59-63-66	2896*/67-67-69	2914*/65-67-69	2942*/66-67-69
			2900**68-69-71	2935**71-73-74	2967**74-77-78
52	2974	2830F/59-65-68	2964*/68-69-71	2984*/67-70-72	3013*/67-70-72
				3001**71-73-75	3034**74-77-78
50	3051	2875F/60-66-69	3025*/68-71-73	3051*/68-72-74	3081*/69-72-74
				3065**71-73-75	3100**74-78-79
48	3130	2919F/60-67-70	3086*/68-72-75	3130*/71-74-76	3150*/70-74-76
					3165**75-78-80
46	3207	2960F/61-68-72	3143*/68-74-76	3189*/72-75-78	3217*/72-76-78
					3229**75-79-80
44	3283	3002F/61-69-73	3193F/69-75-78	3246*/72-77-79	3283*/73-78-80
					3292**75-79-81
42	3357	3043F/61-70-74	3237F/69-76-79	3303*/72-78-81	3353*/75-80-82
40	3433	3082F/62-71-75	3279F/70-77-80	3350F/72-79-82	3410*/75-81-83
38	3506	3119F/62-72-76	3319F/70-78-81	3392F/73-80-83	3487*/75-81-83
36	3574	3158F/62-73-78	3362F/70-79-82	3455F/72-81-83	3540*/75-82-85
34	3639	3191F/62-73-78	3399F/71-80-83	3508F/72-81-84	3580F/75-83-86
32	3667	3210F/63-74-79	3429F/71-80-84	3529F/73-82-85	3602F/76-84-86
30	3668	3219F/63-74-79	3448F/71-80-84	3540F/73-82-85	3613F/76-84-87
28	3669	3228F/63-75-79	3467F/71-80-84	3550F/73-82-85	3623F/76-84-87
26	3670	3238F/64-75-80	3487F/71-80-84	3560F/74-82-85	3633*/77-85-87
24	3671	3247F/64-75-80	3498F/71-81-84	3571F/74-83-86	3640*/77-85-87
22	3671	3256F/64-75-80	3508F/72-81-84	3581F/74-83-86	3647*/77-85-87
20	3672	3266F/65-76-80	3518F/72-81-84	3592F/75-83-86	3654*/78-85-88
18	3673	3275F/65-76-81	3529F/72-82-85	3603F/75-84-86	3660*/78-85-88
16	3674	3285F/65-76-81	3539F/73-82-85	3613F/76-84-87	3667*/79-86-88
14	3675	3295F/66-77-81	3550F/73-82-85	3620*/76-84-87	3674*/79-86-88
12	3676	3305F/66-77-81	3561F/73-82-85	3627*/76-84-87	3676*/79-86-88
					3680**80-86-88
10	3677	3315F/66-77-82	3572F/74-83-86	3634*/77-85-87	3677*/79-86-88
					3686**80-87-89
8	3677	3326F/67-77-82	3583F/74-83-86	3641*/77-85-87	3682*/79-86-88
					3692**81-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3566 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(C3)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C3) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

6	3678	3336F/67-78-82	3594F/74-83-86	3648*/78-85-87	3686*/79-86-88 3698**81-88-90
4	3678	3346F/67-78-82	3601*/75-84-86	3655*/78-85-88	3690*/79-86-88 3703**82-89-90
2	3679	3357F/68-78-83	3607*/75-84-86	3661*/79-85-88	3694*/79-86-88 3709**82-89-91
0	3679	3367F/68-79-83	3614*/76-84-87	3668*/79-86-88	3699*/79-86-88 3715**83-90-91
-2	3679	3378F/68-79-83	3621*/76-84-87	3674*/80-86-88	3703*/79-86-88 3721**84-90-92
-4	3680	3389F/69-79-83	3627*/77-84-87	3680*/80-86-88	3707*/79-86-88 3727**84-91-92
-6	3680	3400F/69-80-83	3634*/77-85-87	3680*/80-86-88 3686**81-87-89	3711*/79-86-88 3733**85-92-93
-8	3680	3411F/69-80-84	3640*/78-85-87	3680*/79-86-88 3692**81-87-89	3714*/79-86-88 3738**85-92-93
-10	3680	3430F/69-80-84	3647*/78-85-87	3681*/79-86-88 3698**82-88-90	3718*/80-86-88 3744**86-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3566 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
14R(C3) 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C4) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2358F/45-49-54	2535F/54-56-59	2597F/56-58-61	2658F/59-60-62
58A	2760	2393F/46-50-55	2572F/55-57-60	2635F/57-59-62	2698F/60-61-64
56A	2827	2433F/47-51-56	2615F/56-58-61	2678F/58-60-63	2742F/61-62-65
54	2896	2475F/48-53-58	2659F/56-59-63	2723F/59-61-65	2785F/62-64-66
52	2974	2521F/49-54-59	2708F/57-60-64	2768F/60-63-66	2830F/62-65-68
50	3051	2566F/50-55-61	2751F/58-62-66	2812F/61-64-67	2875F/63-66-69
48	3130	2612F/51-56-62	2794F/59-63-67	2856F/61-65-69	2919F/64-67-70
46	3207	2652F/51-57-63	2834F/59-64-68	2897F/62-66-70	2961F/64-68-72
44	3283	2690F/52-58-65	2873F/59-65-70	2938F/62-67-71	3003F/65-69-73
42	3357	2727F/52-59-66	2913F/60-66-71	2978F/63-68-72	3044F/65-70-74
40	3433	2763F/52-60-67	2951F/60-67-72	3017F/63-69-74	3084F/66-71-75
38	3506	2796F/53-61-68	2986F/61-67-73	3053F/63-70-75	3121F/66-72-76
36	3574	2831F/53-62-69	3024F/61-68-74	3090F/64-71-76	3159F/66-73-78
34	3639	2861F/53-63-70	3056F/61-69-75	3124F/64-71-77	3193F/67-74-79
32	3667	2878F/54-63-70	3075F/62-70-76	3143F/64-72-77	3213F/67-74-79
30	3668	2886F/54-63-71	3083F/62-70-76	3152F/65-72-78	3222F/67-74-79
28	3669	2895F/54-64-71	3093F/62-70-76	3161F/65-72-78	3232F/68-75-80
26	3670	2903F/54-64-71	3102F/63-70-76	3171F/65-73-78	3242F/68-75-80
24	3671	2911F/55-64-71	3111F/63-71-77	3180F/66-73-78	3252F/68-75-80
22	3671	2920F/55-64-72	3120F/63-71-77	3190F/66-73-79	3262F/69-76-80
20	3672	2928F/55-65-72	3129F/64-71-77	3200F/66-74-79	3272F/69-76-81
18	3673	2937F/56-65-72	3139F/64-72-77	3209F/67-74-79	3282F/70-76-81
16	3674	2945F/56-65-72	3148F/64-72-77	3219F/67-74-79	3292F/70-77-81
14	3675	2954F/56-66-72	3158F/65-72-78	3229F/67-75-80	3303F/70-77-81
12	3676	2963F/57-66-73	3168F/65-73-78	3239F/68-75-80	3314F/71-77-82
10	3677	2972F/57-66-73	3178F/65-73-78	3250F/68-75-80	3325F/71-77-82
8	3677	2980F/57-66-73	3187F/66-73-78	3260F/68-76-80	3336F/71-78-82
6	3678	2989F/58-67-73	3197F/66-74-79	3270F/69-76-81	3347F/72-78-82
4	3678	2998F/58-67-74	3207F/66-74-79	3281F/69-76-81	3358F/72-78-83
2	3679	3008F/58-67-74	3217F/67-74-79	3292F/70-76-81	3370F/72-79-83
0	3679	3017F/59-68-74	3228F/67-74-79	3302F/70-77-81	3381F/73-79-83
-2	3679	3026F/59-68-74	3238F/67-75-80	3313F/70-77-82	3392F/73-79-83
-4	3680	3035F/59-68-75	3248F/68-75-80	3324F/71-77-82	3404F/73-80-84
-6	3680	3045F/60-69-75	3259F/68-75-80	3336F/71-78-82	3419F/74-80-84
-8	3680	3054F/60-69-75	3269F/68-76-81	3347F/71-78-82	3441F/74-80-84
-10	3680	3063F/60-69-75	3280F/69-76-81	3358F/72-78-83	3464F/74-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2820 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(C4) 107 1827 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14R(C5) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2209F/39-44-49	2383F/47-50-55	2443F/50-52-56	2505F/53-55-58
58A	2760	2241F/39-45-50	2418F/48-51-56	2479F/51-53-57	2541F/54-56-59
56A	2827	2279F/40-46-52	2458F/49-52-57	2521F/52-55-59	2583F/55-57-61
54	2896	2318F/41-47-53	2499F/50-53-58	2562F/53-56-60	2626F/56-58-62
52	2974	2361F/42-48-55	2545F/51-55-60	2609F/54-57-62	2674F/57-59-63
50	3051	2404F/43-49-56	2590F/52-56-61	2655F/55-58-63	2721F/58-61-65
48	3130	2446F/44-50-57	2635F/53-57-63	2700F/56-59-65	2765F/59-62-66
46	3207	2485F/45-51-59	2677F/54-58-64	2743F/57-61-66	2806F/59-63-68
44	3283	2524F/45-52-60	2719F/55-59-65	2783F/57-62-67	2846F/60-64-69
42	3357	2564F/46-53-61	2758F/55-60-67	2822F/58-63-68	2886F/60-65-70
40	3433	2602F/47-54-62	2794F/56-61-68	2859F/58-63-69	2924F/61-66-71
38	3506	2638F/48-55-64	2828F/56-62-69	2893F/59-64-70	2959F/61-67-72
36	3574	2675F/48-56-65	2863F/56-63-70	2929F/59-65-72	2996F/62-67-73
34	3639	2703F/49-57-66	2894F/57-64-71	2960F/59-66-73	3028F/62-68-74
32	3667	2719F/49-57-66	2911F/57-64-71	2978F/60-66-73	3047F/62-69-75
30	3668	2727F/49-58-66	2920F/57-64-72	2987F/60-67-73	3056F/63-69-75
28	3669	2735F/49-58-67	2929F/58-65-72	2996F/60-67-74	3065F/63-69-75
26	3670	2743F/50-58-67	2937F/58-65-72	3005F/61-67-74	3075F/63-70-76
24	3671	2751F/50-59-67	2946F/58-65-72	3014F/61-68-74	3084F/64-70-76
22	3671	2758F/50-59-67	2955F/59-66-72	3023F/61-68-74	3093F/64-70-76
20	3672	2766F/51-59-67	2964F/59-66-73	3033F/62-68-74	3103F/64-70-76
18	3673	2774F/51-59-68	2973F/59-66-73	3042F/62-68-75	3112F/65-71-77
16	3674	2783F/51-60-68	2982F/60-66-73	3051F/62-69-75	3122F/65-71-77
14	3675	2791F/52-60-68	2991F/60-67-73	3061F/63-69-75	3132F/65-71-77
12	3676	2799F/52-60-68	3000F/60-67-74	3070F/63-69-75	3142F/66-72-77
10	3677	2808F/52-61-69	3009F/60-67-74	3080F/63-70-76	3152F/66-72-78
8	3677	2816F/52-61-69	3019F/61-68-74	3090F/64-70-76	3162F/66-72-78
6	3678	2825F/53-61-69	3028F/61-68-74	3099F/64-70-76	3172F/67-73-78
4	3678	2833F/53-61-69	3038F/62-68-75	3109F/64-71-76	3182F/67-73-78
2	3679	2842F/53-62-69	3047F/62-69-75	3119F/65-71-77	3192F/68-73-79
0	3679	2850F/54-62-70	3057F/62-69-75	3129F/65-71-77	3203F/68-74-79
-2	3679	2859F/54-62-70	3067F/63-69-75	3139F/65-72-77	3213F/68-74-79
-4	3680	2868F/54-63-70	3076F/63-70-76	3149F/66-72-77	3224F/69-74-79
-6	3680	2876F/55-63-70	3086F/63-70-76	3159F/66-72-78	3234F/69-75-80
-8	3680	2885F/55-63-71	3096F/64-70-76	3169F/67-73-78	3245F/69-75-80
-10	3680	2894F/55-64-71	3106F/64-71-76	3180F/67-73-78	3256F/70-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2507 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(C5) 107 1827 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14R(C6) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	1970F/27-34-42	2138F/37-41-47	2197F/40-43-49	2257F/43-46-51
58A	2760	1999F/28-35-43	2169F/38-42-48	2229F/41-44-50	2290F/44-46-52
56A	2827	2032F/29-36-44	2205F/38-43-49	2265F/41-45-51	2327F/44-47-53
54	2896	2066F/30-37-45	2242F/39-44-51	2303F/42-46-53	2365F/45-49-54
52	2974	2104F/30-38-47	2283F/40-45-52	2345F/43-47-54	2408F/46-50-56
50	3051	2142F/31-39-48	2323F/41-46-54	2386F/44-48-55	2450F/47-51-57
48	3130	2180F/32-40-49	2363F/42-47-55	2427F/45-50-57	2492F/48-52-59
46	3207	2215F/33-41-51	2400F/42-48-56	2465F/46-51-58	2531F/49-53-60
44	3283	2250F/33-42-52	2438F/43-49-57	2503F/46-52-59	2570F/50-54-61
42	3357	2285F/34-43-53	2476F/44-50-59	2542F/47-53-61	2609F/50-55-62
40	3433	2319F/35-44-54	2512F/45-51-60	2579F/48-54-62	2647F/51-56-64
38	3506	2351F/35-45-55	2545F/45-52-61	2613F/49-54-63	2682F/52-57-65
36	3574	2384F/36-46-57	2581F/46-53-62	2649F/49-55-64	2719F/53-58-66
34	3639	2412F/36-46-58	2611F/47-54-63	2681F/50-56-65	2751F/53-59-67
32	3667	2428F/37-47-58	2629F/47-54-64	2698F/50-57-66	2768F/54-59-67
30	3668	2435F/37-47-58	2637F/47-55-64	2707F/51-57-66	2776F/54-59-68
28	3669	2443F/38-47-58	2645F/48-55-64	2716F/51-57-66	2784F/54-60-68
26	3670	2451F/38-48-59	2654F/48-55-64	2725F/52-58-66	2793F/55-60-68
24	3671	2458F/38-48-59	2663F/49-55-65	2734F/52-58-67	2801F/55-60-68
22	3671	2466F/39-48-59	2671F/49-56-65	2743F/52-58-67	2810F/55-61-69
20	3672	2474F/39-49-59	2680F/49-56-65	2751F/53-59-67	2819F/55-61-69
18	3673	2482F/39-49-60	2689F/50-56-65	2760F/53-59-67	2828F/56-61-69
16	3674	2490F/40-49-60	2698F/50-57-66	2768F/53-59-68	2836F/56-62-69
14	3675	2498F/40-49-60	2707F/51-57-66	2777F/54-59-68	2845F/56-62-70
12	3676	2506F/40-50-60	2716F/51-57-66	2785F/54-60-68	2854F/57-62-70
10	3677	2514F/41-50-61	2725F/51-58-66	2794F/54-60-68	2863F/57-62-70
8	3677	2523F/41-50-61	2734F/52-58-67	2803F/55-60-68	2873F/57-63-70
6	3678	2531F/42-51-61	2743F/52-58-67	2812F/55-61-69	2882F/58-63-71
4	3678	2539F/42-51-61	2752F/52-59-67	2821F/55-61-69	2891F/58-63-71
2	3679	2548F/42-51-61	2761F/53-59-67	2830F/56-61-69	2900F/58-64-71
0	3679	2556F/43-52-62	2770F/53-59-68	2839F/56-62-69	2910F/59-64-71
-2	3679	2564F/43-52-62	2778F/53-59-68	2848F/56-62-70	2919F/59-64-72
-4	3680	2573F/44-52-62	2787F/54-60-68	2857F/57-62-70	2928F/59-65-72
-6	3680	2582F/44-52-62	2796F/54-60-68	2866F/57-63-70	2938F/60-65-72
-8	3680	2590F/44-53-63	2805F/54-60-69	2876F/57-63-70	2948F/60-65-72
-10	3680	2599F/45-53-63	2814F/55-61-69	2885F/58-63-71	2958F/61-66-73

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2050 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(C6) 107 1827 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14R(P2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2667*/60-60-63	2742*/60-62-64	2767*/61-62-64	2791*/61-62-64
		2675**63-65-66	2771**70-72-73	2802**73-76-76	2819**75-79-79
58A	2760	2720*/62-62-64	2794*/62-63-65	2820*/62-63-65	2845*/63-63-65
		2724**63-64-66	2822**71-74-74	2854**74-77-77	2876**76-80-80
56A	2827	2780*/63-64-66	2855*/63-65-67	2881*/64-65-67	2907*/64-65-67
			2881**71-74-75	2914**75-78-78	2942**78-82-82
54	2896	2835*/63-65-68	2917*/64-67-69	2944*/65-67-69	2971*/66-67-69
			2943**72-74-75	2976**75-78-79	3004**79-83-83
52	2974	2895*/63-67-69	2987*/66-70-72	3015*/67-70-72	3042*/67-70-72
			3011**72-74-76	3044**75-79-80	3074**79-83-83
50	3051	2953*/63-68-71	3054*/67-72-74	3083*/68-72-74	3112*/69-72-74
			3075**72-75-76	3109**76-79-80	3141**79-83-84
48	3130	3010*/63-70-73	3130*/70-74-76	3153*/69-74-76	3183*/70-74-76
			3140**72-75-77	3175**76-80-81	3207**79-84-85
46	3207	3060F/63-71-74	3201*/72-76-78	3220*/71-76-78	3251*/72-76-78
				3239**76-80-81	3273**79-84-85
44	3283	3103F/64-72-76	3260*/73-77-80	3287*/72-78-80	3320*/73-78-80
				3303**76-80-82	3340**79-84-86
42	3357	3145F/64-73-77	3317*/73-79-81	3357*/74-80-82	3385*/74-80-82
				3364**76-81-83	3402**79-85-86
40	3433	3186F/64-74-78	3373*/73-80-82	3430*/76-81-83	3468*/75-81-83
					3485**79-85-86
38	3506	3223F/65-75-79	3433*/73-81-83	3500*/75-81-84	3527*/75-82-84
					3542**79-85-87
36	3574	3263F/65-76-80	3502*/72-81-84	3553*/76-83-85	3586*/76-83-85
					3598**79-86-88
34	3639	3299F/65-77-81	3546F/72-82-85	3602*/76-84-86	3642*/77-85-87
					3651**79-86-88
32	3667	3319F/65-77-82	3568F/73-83-85	3626*/76-84-87	3668*/77-86-88
					3677**79-87-89
30	3668	3329F/66-78-82	3578F/73-83-86	3633*/76-85-87	3672*/78-86-88
					3682**80-87-89
28	3669	3339F/66-78-82	3587*/74-83-86	3640*/77-85-87	3677*/78-86-88
					3688**80-88-90
26	3670	3349F/66-78-82	3593*/74-83-86	3646*/77-85-87	3681*/78-86-88
					3693**81-88-90
24	3671	3359F/67-78-83	3600*/74-84-86	3653*/78-85-88	3686*/78-86-88
					3699**81-89-91
22	3671	3369F/67-79-83	3607*/75-84-86	3660*/78-85-88	3690*/78-86-88
					3705**82-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3837 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(P2)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3379F/67-79-83	3613*/75-84-87	3666*/79-86-88	3694*/78-86-88
					3710**82-90-91
18	3673	3389F/68-79-83	3620*/76-84-87	3673*/79-86-88	3699*/78-86-88
					3716**83-90-92
16	3674	3399F/68-80-83	3627*/76-84-87	3674*/79-86-88	3703*/78-86-88
				3679**80-86-88	3722**83-91-92
14	3675	3410F/68-80-84	3634*/77-85-87	3675*/78-86-88	3707*/78-86-88
				3684**80-87-89	3728**84-91-93
12	3676	3428F/68-80-84	3640*/77-85-87	3676*/78-86-88	3712*/78-86-88
				3690**81-87-89	3734**84-92-93
10	3677	3447F/69-80-84	3647*/78-85-87	3680*/78-86-88	3717*/79-86-88
				3696**81-88-90	3740**85-93-94
8	3677	3466F/69-80-84	3654*/78-85-88	3684*/78-86-88	3721*/79-86-88
				3702**82-89-90	3745**85-93-94
6	3678	3486F/69-80-84	3660*/79-85-88	3688*/78-86-88	3725*/79-86-88
				3708**82-89-91	3751**86-94-95
4	3678	3497F/69-81-84	3667*/79-86-88	3693*/78-86-88	3729*/79-86-88
				3714**83-90-91	3757**86-94-95
2	3679	3507F/69-81-84	3673*/80-86-88	3697*/78-86-88	3733*/79-86-88
				3719**83-90-92	3762**87-95-96
0	3679	3518F/70-81-84	3679*/80-86-88	3701*/78-86-88	3737*/79-86-88
				3725**84-91-92	3768**87-95-96
-2	3679	3526*/70-81-85	3679*/79-86-88	3705*/78-86-88	3741*/79-86-88
			3685**81-87-89	3731**84-91-93	3774**88-96-97
-4	3680	3533*/71-82-85	3680*/79-86-88	3708*/78-86-88	3745*/79-86-88
			3691**81-87-89	3737**85-92-93	3780**89-97-98
-6	3680	3539*/71-82-85	3680*/78-86-88	3712*/78-86-88	3749*/79-86-88
			3697**82-88-90	3742**85-93-94	3785**89-97-98
-8	3680	3546*/72-82-85	3680*/78-86-88	3716*/79-86-88	3752*/79-86-88
			3702**82-88-90	3748**86-93-94	3787**89-98-98
-10	3680	3552*/72-82-85	3683*/78-86-88	3720*/79-86-88	3756*/80-86-88
			3708**83-89-91	3754**87-94-95	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3837 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS FROM LO-FT/M				
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(P2)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P3) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2621*/58-59-61	2708*/60-62-64	2735*/61-62-64	2760*/61-62-64
			2723**66-68-69	2757**69-71-72	2789**71-74-74
58A	2760	2667*/58-60-63	2760*/62-63-65	2787*/62-63-65	2813*/63-63-65
			2774**67-69-70	2807**69-71-72	2841**72-75-75
56A	2827	2718*/58-62-64	2827*/65-65-67	2847*/64-65-67	2874*/64-65-67
			2832**67-68-70	2866**70-71-73	2900**73-75-76
54	2896	2767F/58-63-66	2889*/67-67-69	2909*/65-67-69	2937*/66-67-69
			2891**67-68-70	2927**70-71-73	2960**73-76-77
52	2974	2812F/59-64-67	2955*/67-69-71	2978*/67-70-72	3007*/67-70-72
				2993**70-72-74	3027**73-76-77
50	3051	2856F/59-65-69	3015*/67-70-73	3051*/69-72-74	3075*/69-72-74
				3057**70-72-74	3092**74-77-78
48	3130	2900F/60-66-70	3075*/68-72-74	3119*/71-73-76	3144*/70-74-76
					3157**74-77-79
46	3207	2942F/60-67-71	3131F/68-73-76	3178*/71-75-77	3211*/72-76-78
					3221**74-78-79
44	3283	2983F/60-68-72	3174F/68-75-77	3235*/71-76-79	3283*/74-78-80
42	3357	3024F/61-69-74	3217F/69-76-79	3284F/71-78-80	3341*/74-79-82
40	3433	3063F/61-70-75	3259F/69-77-80	3329F/72-79-81	3398*/74-81-83
38	3506	3099F/61-71-76	3298F/69-77-81	3371F/72-80-82	3471*/74-81-83
36	3574	3138F/62-72-77	3340F/70-78-82	3416F/72-80-84	3522F/74-82-84
34	3639	3171F/62-73-78	3378F/70-79-83	3487F/72-80-83	3560F/75-83-85
32	3667	3190F/62-73-79	3399F/70-80-83	3508F/72-81-84	3581F/75-83-86
30	3668	3199F/63-74-79	3410F/71-80-84	3519F/73-81-84	3592F/75-83-86
28	3669	3208F/63-74-79	3428F/71-80-84	3529F/73-82-85	3602F/76-84-86
26	3670	3217F/63-74-79	3447F/71-80-84	3539F/73-82-85	3613F/76-84-87
24	3671	3226F/63-74-79	3466F/71-80-84	3550F/74-82-85	3624F/76-84-87
22	3671	3236F/64-75-80	3487F/71-80-84	3560F/74-82-85	3634*/77-85-87
20	3672	3245F/64-75-80	3497F/71-81-84	3571F/74-83-86	3641*/77-85-87
18	3673	3255F/64-75-80	3508F/72-81-84	3582F/75-83-86	3648*/78-85-87
16	3674	3264F/65-76-80	3518F/72-81-84	3592F/75-83-86	3655*/78-85-88
14	3675	3274F/65-76-81	3529F/72-81-85	3603F/75-84-86	3662*/79-85-88
12	3676	3284F/65-76-81	3540F/73-82-85	3614F/76-84-87	3669*/79-86-88
10	3677	3294F/66-77-81	3551F/73-82-85	3622*/76-84-87	3675*/80-86-88
8	3677	3304F/66-77-81	3562F/74-82-85	3629*/77-84-87	3677*/79-86-88
					3682**80-86-89
6	3678	3314F/66-77-82	3572F/74-83-86	3635*/77-85-87	3679*/79-86-88
					3688**81-87-89
4	3678	3325F/67-77-82	3583F/74-83-86	3642*/78-85-87	3683*/79-86-88
					3693**81-88-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3517 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(P3) 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P3) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
2	3679	3335F/67-78-82	3594F/75-83-86	3649*/78-85-87	3687*/79-86-88 3699**82-88-90
0	3679	3346F/67-78-82	3601*/75-84-86	3655*/79-85-88	3691*/79-86-88 3705**82-89-90
-2	3679	3356F/68-78-83	3608*/76-84-86	3662*/79-85-88	3695*/79-86-88 3710**83-89-91
-4	3680	3367F/68-79-83	3615*/76-84-87	3668*/80-86-88	3699*/79-86-88 3716**83-90-92
-6	3680	3377F/68-79-83	3621*/77-84-87	3675*/80-86-88	3703*/79-86-88 3722**84-90-92
-8	3680	3388F/69-79-83	3628*/77-84-87	3680*/80-86-88 3681**81-86-88	3707*/79-86-88 3728**84-91-93
-10	3680	3399F/69-80-83	3634*/78-85-87	3680*/80-86-88 3687**81-87-89	3711*/80-86-88 3734**85-92-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3517 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

14R(P3)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P4) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2446F/49-53-56	2625F/57-59-61	2672*/60-61-63	2703*/61-62-64
					2709**63-64-66
58A	2760	2483F/50-54-58	2664F/58-60-63	2720*/61-62-64	2756*/63-63-65
					2758**64-64-66
56A	2827	2525F/51-55-59	2707F/59-61-64	2766F/61-63-66	2814*/64-65-67
54	2896	2568F/52-56-60	2748F/60-62-65	2808F/62-64-67	2869*/64-66-69
52	2974	2616F/53-57-62	2793F/60-63-67	2854F/63-66-68	2917F/65-68-70
50	3051	2658F/53-58-63	2837F/61-65-68	2899F/63-67-70	2963F/66-69-71
48	3130	2700F/54-59-65	2881F/61-66-69	2944F/64-68-71	3009F/66-70-73
46	3207	2739F/54-60-66	2922F/62-67-71	2986F/64-69-72	3051F/67-71-74
44	3283	2777F/54-61-67	2963F/62-68-72	3028F/65-70-74	3094F/67-72-75
42	3357	2816F/55-62-68	3004F/63-69-73	3069F/65-71-75	3136F/68-73-77
40	3433	2853F/55-63-69	3043F/63-70-74	3109F/66-72-76	3177F/68-74-78
38	3506	2887F/55-64-70	3079F/63-70-75	3146F/66-73-77	3215F/69-75-79
36	3574	2923F/56-65-71	3117F/64-71-76	3185F/66-74-78	3254F/69-76-80
34	3639	2954F/56-66-72	3151F/64-72-77	3219F/67-74-79	3290F/69-77-81
32	3667	2971F/56-66-73	3170F/64-73-78	3239F/67-75-80	3311F/70-77-81
30	3668	2980F/56-66-73	3179F/65-73-78	3249F/67-75-80	3321F/70-77-82
28	3669	2988F/57-67-73	3188F/65-73-78	3258F/68-76-80	3332F/70-78-82
26	3670	2997F/57-67-74	3198F/65-74-79	3268F/68-76-80	3342F/71-78-82
24	3671	3005F/57-67-74	3207F/66-74-79	3278F/68-76-81	3353F/71-78-82
22	3671	3014F/58-68-74	3217F/66-74-79	3288F/69-76-81	3363F/71-79-83
20	3672	3023F/58-68-74	3227F/66-74-79	3299F/69-77-81	3374F/72-79-83
18	3673	3032F/58-68-74	3236F/67-75-80	3309F/69-77-81	3385F/72-79-83
16	3674	3040F/59-68-75	3246F/67-75-80	3319F/70-77-82	3396F/72-80-83
14	3675	3049F/59-69-75	3256F/67-75-80	3330F/70-78-82	3407F/73-80-84
12	3676	3059F/59-69-75	3266F/68-76-80	3341F/70-78-82	3425F/73-80-84
10	3677	3068F/60-69-75	3276F/68-76-81	3352F/71-78-82	3446F/73-80-84
8	3677	3077F/60-70-76	3287F/68-76-81	3363F/71-79-83	3467F/73-80-84
6	3678	3086F/60-70-76	3298F/69-77-81	3374F/71-79-83	3488F/73-80-84
4	3678	3095F/61-70-76	3308F/69-77-81	3385F/72-79-83	3499F/74-81-84
2	3679	3104F/61-71-76	3319F/69-77-82	3396F/72-80-83	3511F/74-81-84
0	3679	3114F/61-71-77	3330F/70-78-82	3408F/73-80-84	3522F/75-81-84
-2	3679	3123F/62-71-77	3341F/70-78-82	3426F/73-80-84	3533F/75-82-85
-4	3680	3133F/62-71-77	3352F/70-78-82	3447F/73-80-84	3545F/75-82-85
-6	3680	3142F/62-72-77	3363F/71-79-83	3468F/73-80-84	3556F/76-82-85
-8	3680	3152F/63-72-78	3374F/71-79-83	3489F/73-80-84	3568F/76-83-86
-10	3680	3162F/63-72-78	3385F/72-79-83	3500F/74-81-84	3579F/76-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3016 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(P4) 107 1827 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 15

WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2713*/59-62-64	2788*/60-62-64	2812*/61-62-64	2836*/61-62-64
		2730**63-65-67	2813**73-78-78	2819**74-79-79	2819**75-79-79
58A	2760	2764*/60-63-65	2841*/62-63-65	2866*/62-63-65	2891*/63-63-65
		2778**64-66-67	2863**73-78-78	2876**76-80-80	2876**76-80-80
56A	2827	2827*/62-65-67	2903*/63-65-67	2928*/64-65-67	2953*/64-65-67
		2834**64-66-68	2920**73-79-79	2941**77-82-82	2943**78-82-82
54	2896	2890*/64-67-69	2966*/64-67-69	2992*/65-67-69	3018*/66-67-69
			2981**73-79-79	3003**77-82-83	3015**79-85-85
52	2974	2950*/64-69-71	3037*/66-70-72	3064*/67-70-72	3091*/67-70-72
			3049**74-79-80	3073**77-83-83	3096**80-86-86
50	3051	3008*/64-70-73	3106*/67-72-74	3134*/68-72-74	3162*/69-72-74
			3115**74-80-81	3141**77-83-84	3164**81-87-87
48	3130	3058F/64-71-74	3175*/69-74-76	3205*/70-74-76	3234*/70-74-76
			3181**74-80-81	3207**77-84-85	3232**81-87-88
46	3207	3101F/65-73-75	3242*/70-76-78	3273*/71-76-78	3305*/72-76-78
			3245**74-81-82	3272**77-84-85	3300**81-88-88
44	3283	3144F/65-74-77	3309*/72-78-80	3343*/72-78-80	3376*/73-78-80
			3309**74-81-83	3339**77-84-86	3368**81-88-89
42	3357	3187F/65-75-78	3374*/73-80-82	3409*/73-80-82	3461*/74-80-82
			3371**74-81-83	3402**77-85-86	3441**81-88-89
40	3433	3228F/66-76-79	3449*/73-81-83	3497*/74-81-83	3530*/75-81-83
			3440**73-82-84	3484**77-85-86	3515**80-89-89
38	3506	3266F/66-76-80	3510F/73-82-84	3549*/74-82-84	3584*/75-82-84
			3508**73-82-84	3541**77-85-87	3573**80-89-90
36	3574	3307F/66-77-81	3553F/73-83-85	3608*/75-83-85	3644*/76-83-85
				3597**77-86-88	3631**81-89-91
34	3639	3342B/66-78-82	3591F/74-84-86	3663F/76-85-87	3701*/77-85-87
				3651**77-86-88	3684**81-90-91
32	3667	3360B/66-79-83	3613F/74-84-87	3685F/77-86-88	3727*/78-86-88
				3676**77-87-89	3710**81-90-92
30	3668	3370B/67-79-83	3623F/74-84-87	3695*/77-86-88	3732*/78-86-88
				3681**78-87-89	3716**81-91-92
28	3669	3380B/67-79-83	3633F/75-85-87	3699*/77-86-88	3737*/78-86-88
				3687**78-88-90	3721**82-91-93
26	3670	3391B/67-79-83	3644F/75-85-87	3704*/77-86-88	3741*/78-86-88
				3692**79-88-90	3727**82-92-93
24	3671	3401B/68-80-83	3654F/75-85-88	3709*/77-86-88	3746*/78-86-88
				3698**79-89-90	3732**83-92-94
22	3671	3412B/68-80-84	3665F/76-86-88	3713*/77-86-88	3750*/78-86-88
				3703**80-89-91	3738**83-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES:			23 M FOR TODA,			49 M FOR ASDA			OBS FROM LO-FT/M			
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15	73	1544	0	86	1740	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15

WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3672	3431B/68-80-84	3676F/76-86-88	3718*/77-86-88	3755*/78-86-88
			3674**76-86-88	3709**80-90-91	3743**84-93-95
18	3673	3449B/68-80-84	3685*/76-86-88	3722*/77-86-88	3759*/78-86-88
			3680**77-87-89	3715**81-90-92	3749**84-94-95
16	3674	3468B/68-80-84	3689*/77-86-88	3727*/78-86-88	3763*/78-86-88
			3685**77-87-89	3720**81-91-92	3754**85-94-96
14	3675	3488B/68-80-84	3694*/77-86-88	3731*/78-86-88	3768*/78-86-88
			3691**78-88-90	3726**82-91-93	3760**85-95-96
12	3676	3498B/69-81-84	3699*/77-86-88	3736*/78-86-88	3773*/79-86-88
			3697**78-88-90	3732**82-92-93	3766**86-96-97
10	3677	3509B/69-81-84	3703*/77-86-88	3741*/78-86-88	3777*/79-86-88
			3703**79-89-90	3738**83-92-94	3772**86-96-97
8	3677	3520B/70-81-84	3708*/77-86-88	3745*/78-86-88	3782*/79-86-88
			3708**79-89-91	3744**83-93-94	3778**87-97-98
6	3678	3531B/70-82-85	3713*/77-86-88	3750*/78-86-88	3786*/79-86-88
			3714**80-90-91	3749**84-94-95	3784**87-97-98
4	3678	3542B/70-82-85	3717*/77-86-88	3754*/78-86-88	3787F/79-86-88
			3720**80-90-92	3755**84-94-95	3787**88-98-98
2	3679	3553B/71-82-85	3721*/77-86-88	3758*/78-86-88	3787F/79-86-88
			3726**81-91-92	3760**85-95-96	3787**88-98-98
0	3679	3564B/71-83-85	3725*/77-86-88	3762*/78-86-88	3787F/79-86-88
			3731**81-91-93	3766**85-95-96	3787**88-98-98
-2	3679	3574F/72-83-86	3730*/78-86-88	3766*/78-86-88	3787F/79-86-88
			3737**82-92-93	3771**86-96-97	3787**88-98-98
-4	3680	3585F/72-83-86	3734*/78-86-88	3770*/79-86-88	3787F/79-86-88
			3742**82-93-94	3777**86-96-97	3787**88-98-98
-6	3680	3596F/72-84-86	3738*/78-86-88	3774*/79-86-88	3787F/79-86-88
			3748**83-93-94	3783**87-97-98	3787**88-98-98
-8	3680	3607F/73-84-86	3742*/78-86-88	3778*/79-86-88	3787F/80-86-88
			3753**84-94-95	3787**87-98-98	3787**89-98-98
-10	3680	3618F/73-84-87	3746*/78-86-88	3782*/79-86-88	3787F/80-86-88
			3759**84-94-95	3787**88-98-98	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

15	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y1) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2702*/59-62-64	2778*/60-62-64	2802*/61-62-64	2826*/61-62-64
		2713**62-63-65	2799**71-75-76	2819**74-79-79	2819**75-79-79
58A	2760	2760*/62-63-65	2830*/62-63-65	2856*/62-63-65	2881*/63-63-65
			2849**71-76-76	2871**75-79-79	2876**76-80-80
56A	2827	2814*/62-65-67	2891*/63-65-67	2917*/64-65-67	2943*/64-65-67
			2906**71-76-77	2928**75-80-80	2943**78-82-82
54	2896	2868*/62-66-69	2954*/64-67-69	2981*/65-67-69	3007*/66-67-69
			2966**72-77-78	2989**75-80-81	3011**78-84-84
52	2974	2927F/62-68-70	3024*/66-70-72	3052*/67-70-72	3080*/67-70-72
			3033**72-77-78	3059**75-81-81	3082**79-84-85
50	3051	2973F/63-69-72	3093*/67-72-74	3122*/68-72-74	3150*/69-72-74
			3098**72-78-79	3124**75-81-82	3150**79-85-85
48	3130	3019F/63-70-73	3162*/69-74-76	3192*/70-74-76	3221*/70-74-76
			3164**72-78-80	3191**75-82-83	3217**79-85-86
46	3207	3061F/64-71-74	3228*/70-76-78	3260*/71-76-78	3291*/72-76-78
			3227**72-78-80	3256**75-82-83	3283**79-85-86
44	3283	3104F/64-72-76	3294*/72-78-80	3328*/72-78-80	3362*/73-78-80
			3290**72-79-81	3320**75-82-84	3350**79-86-87
42	3357	3146F/64-73-77	3345F/72-79-82	3393*/73-80-82	3438*/74-80-82
				3383**76-83-84	3415**79-86-87
40	3433	3186F/65-74-78	3390F/73-80-83	3480*/74-81-83	3516*/75-81-83
				3457**75-83-85	3497**79-86-88
38	3506	3224F/65-75-79	3449F/72-81-83	3533*/74-82-84	3569*/75-82-84
				3521**75-83-85	3554**79-87-88
36	3574	3264F/65-76-80	3510F/72-81-84	3581F/75-83-85	3629*/76-83-85
				3577**75-84-86	3611**79-87-89
34	3639	3300F/65-77-81	3547F/73-82-85	3619F/75-84-87	3685*/77-85-87
					3664**79-88-89
32	3667	3320F/66-77-82	3569F/73-83-86	3641F/76-85-87	3711*/78-86-88
					3689**79-88-90
30	3668	3330F/66-78-82	3579F/73-83-86	3651F/76-85-88	3716*/78-86-88
					3695**80-89-90
28	3669	3340F/66-78-82	3589F/74-83-86	3662F/76-86-88	3720*/78-86-88
					3700**80-89-91
26	3670	3350F/67-78-82	3599F/74-84-86	3673F/77-86-88	3725*/78-86-88
				3671**77-86-88	3706**81-90-91
24	3671	3360F/67-78-83	3610F/74-84-87	3684F/77-86-88	3730*/78-86-88
				3677**77-86-89	3712**81-90-92
22	3671	3370F/67-79-83	3620F/75-84-87	3695F/77-86-88	3734*/78-86-88
				3682**78-87-89	3717**82-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3847 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y1)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y1) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3380F/68-79-83	3631F/75-85-87	3701*/77-86-88	3739*/78-86-88
				3688**78-87-89	3723**82-91-93
18	3673	3390F/68-79-83	3642F/75-85-87	3706*/77-86-88	3743*/78-86-88
				3693**79-88-90	3729**83-92-93
16	3674	3400F/68-80-83	3653F/76-85-88	3710*/78-86-88	3748*/78-86-88
				3699**79-89-90	3734**83-92-94
14	3675	3411F/68-80-84	3664F/76-86-88	3715*/78-86-88	3752*/78-86-88
				3705**80-89-91	3740**84-93-94
12	3676	3429F/69-80-84	3675F/76-86-88	3720*/78-86-88	3757*/79-86-88
				3711**80-90-91	3746**84-93-95
10	3677	3448F/69-80-84	3686F/77-86-88	3725*/78-86-88	3762*/79-86-88
			3681**77-86-89	3717**81-90-92	3752**85-94-95
8	3677	3467F/69-80-84	3691*/77-86-88	3729*/78-86-88	3766*/79-86-88
			3687**77-87-89	3723**81-91-92	3757**85-94-96
6	3678	3487F/69-80-84	3696*/77-86-88	3734*/78-86-88	3771*/79-86-88
			3693**78-87-89	3729**82-91-93	3763**86-95-96
4	3678	3498F/69-81-84	3700*/77-86-88	3738*/78-86-88	3775*/79-86-88
			3698**79-88-90	3734**82-92-93	3769**86-96-97
2	3679	3508F/70-81-84	3705*/77-86-88	3742*/78-86-88	3779*/79-86-88
			3704**79-89-90	3740**83-92-94	3774**87-96-97
0	3679	3519F/70-81-84	3709*/77-86-88	3747*/78-86-88	3783*/79-86-88
			3709**80-89-91	3745**83-93-94	3780**87-97-98
-2	3679	3529F/70-81-85	3713*/78-86-88	3751*/78-86-88	3787F/79-86-88
			3715**80-90-91	3751**84-94-95	3786**88-97-98
-4	3680	3540F/71-82-85	3717*/78-86-88	3755*/79-86-88	3787F/79-86-88
			3721**81-90-92	3756**85-94-95	3787**88-98-98
-6	3680	3551F/71-82-85	3722*/78-86-88	3759*/79-86-88	3787F/79-86-88
			3726**81-91-92	3762**85-95-96	3787**88-98-98
-8	3680	3561F/71-82-85	3726*/78-86-88	3763*/79-86-88	3787F/80-86-88
			3732**82-91-93	3767**86-95-96	3787**89-98-98
-10	3680	3572F/72-83-86	3730*/78-86-88	3767*/79-86-88	3787F/80-86-88
			3738**82-92-93	3773**86-96-97	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3847 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS FROM LO-FT/M				
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y1)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2642F/57-60-62	2742*/60-62-64	2768*/61-62-64	2793*/61-62-64
			2751**65-68-69	2776**69-72-72	2799**72-75-76
58A	2760	2677F/57-61-63	2794*/62-63-65	2821*/62-63-65	2847*/63-63-65
			2800**66-69-70	2825**69-72-73	2848**72-76-76
56A	2827	2718F/58-62-64	2853*/63-65-67	2881*/64-65-67	2908*/64-65-67
			2856**66-69-71	2881**69-73-74	2906**72-76-77
54	2896	2759F/58-63-66	2915*/64-67-69	2943*/65-67-69	2971*/66-67-69
			2914**66-70-71	2940**69-73-74	2965**73-77-77
52	2974	2804F/59-64-67	2983*/66-70-72	3013*/67-70-72	3042*/67-70-72
			2979**66-70-72	3006**70-74-75	3033**73-77-78
50	3051	2848F/59-65-68	3031F/67-71-73	3080*/68-72-74	3110*/69-72-74
				3071**70-74-76	3098**73-78-79
48	3130	2892F/60-66-70	3078F/67-72-75	3142F/70-74-76	3180*/70-74-76
				3136**70-74-76	3164**73-78-80
46	3207	2933F/60-67-71	3122F/68-73-76	3187F/70-75-78	3247*/72-76-78
					3228**73-78-80
44	3283	2974F/60-68-72	3165F/68-74-77	3231F/71-76-79	3300F/73-78-80
					3291**73-79-81
42	3357	3015F/61-69-73	3208F/68-75-78	3275F/71-77-80	3346F/74-79-82
40	3433	3055F/61-70-75	3250F/69-76-80	3320F/72-78-81	3392F/74-80-83
38	3506	3091F/61-71-76	3289F/69-77-81	3361F/72-79-82	3454F/74-81-83
36	3574	3129F/62-72-77	3331F/70-78-82	3404F/72-80-83	3512F/74-81-84
34	3639	3162F/62-73-78	3368F/70-79-83	3468F/72-80-84	3550F/74-82-85
32	3667	3181F/62-73-78	3390F/70-79-83	3499F/72-81-84	3572F/75-83-86
30	3668	3190F/62-73-79	3400F/71-80-83	3509F/72-81-84	3582F/75-83-86
28	3669	3199F/63-74-79	3410F/71-80-84	3519F/73-81-84	3593F/76-83-86
26	3670	3208F/63-74-79	3429F/71-80-84	3530F/73-82-85	3603F/76-84-86
24	3671	3218F/63-74-79	3448F/71-80-84	3540F/73-82-85	3614F/76-84-87
22	3671	3227F/64-74-79	3468F/71-80-84	3551F/74-82-85	3625F/77-84-87
20	3672	3236F/64-75-80	3488F/71-80-84	3561F/74-82-85	3636F/77-85-87
18	3673	3246F/64-75-80	3498F/72-81-84	3572F/74-83-86	3647F/77-85-87
16	3674	3255F/65-75-80	3509F/72-81-84	3583F/75-83-86	3658F/78-85-88
14	3675	3265F/65-76-80	3519F/72-81-84	3593F/75-83-86	3669F/78-86-88
12	3676	3274F/65-76-81	3530F/73-82-85	3605F/76-84-86	3681F/79-86-88
					3678**78-86-88
10	3677	3284F/66-76-81	3541F/73-82-85	3616F/76-84-87	3692F/79-86-88
					3684**79-87-89
8	3677	3295F/66-77-81	3552F/73-82-85	3627F/76-84-87	3704F/79-86-88
					3690**80-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3502 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y2)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y2) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

6	3678	3305F/66-77-81	3563F/74-83-85	3638F/77-85-87	3716F/79-86-88
					3696**80-88-90
4	3678	3315F/67-77-82	3573F/74-83-86	3649F/77-85-87	3725*/79-86-88
					3701**81-88-90
2	3679	3325F/67-77-82	3584F/75-83-86	3661F/77-85-88	3729*/79-86-88
					3707**81-89-91
0	3679	3336F/67-78-82	3595F/75-83-86	3672F/78-86-88	3733*/79-86-88
					3713**82-89-91
-2	3679	3346F/68-78-82	3607F/75-84-86	3684F/78-86-88	3738*/79-86-88
				3682**78-86-88	3718**82-90-92
-4	3680	3357F/68-78-83	3618F/76-84-87	3695F/79-86-88	3742*/79-86-88
				3687**79-87-89	3724**83-91-92
-6	3680	3368F/68-79-83	3629F/76-85-87	3707F/79-86-88	3746*/79-86-88
				3693**79-87-89	3730**83-91-93
-8	3680	3378F/69-79-83	3641F/76-85-87	3712*/79-86-88	3750*/80-86-88
				3698**80-88-90	3736**84-92-93
-10	3680	3389F/69-79-83	3652F/77-85-88	3716*/79-86-88	3754*/80-86-88
				3704**80-89-90	3741**84-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3502 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y2)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y3) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2566F/54-57-60	2719*/60-62-64	2746*/61-62-64	2772*/61-62-64
			2719**62-64-66	2745**65-67-69	2769**68-71-72
58A	2760	2604F/55-58-61	2770*/62-63-65	2798*/62-63-65	2825*/63-63-65
			2767**62-64-66	2793**65-68-69	2818**69-71-72
56A	2827	2643F/55-59-62	2817F/62-65-67	2857*/64-65-67	2886*/64-65-67
				2849**66-68-70	2875**69-72-73
54	2896	2683F/56-60-64	2860F/63-66-68	2919*/65-67-69	2948*/66-67-69
				2907**66-69-71	2934**69-72-74
52	2974	2728F/56-61-65	2907F/64-67-70	2969F/66-69-71	3017*/67-70-72
					3000**69-73-74
50	3051	2771F/57-62-66	2953F/64-68-71	3015F/67-70-73	3079F/69-72-74
					3064**70-73-75
48	3130	2814F/57-63-68	2998F/65-70-72	3062F/67-72-74	3127F/70-74-76
46	3207	2855F/58-64-69	3041F/65-71-74	3105F/68-73-75	3171F/70-75-77
44	3283	2894F/58-65-70	3083F/66-72-75	3149F/68-74-77	3215F/71-76-78
42	3357	2934F/58-66-71	3125F/66-73-76	3191F/69-75-78	3259F/71-77-80
40	3433	2972F/59-67-72	3165F/67-74-77	3233F/69-76-79	3303F/72-78-81
38	3506	3008F/59-68-74	3203F/67-74-79	3271F/70-77-80	3344F/72-79-82
36	3574	3045F/59-69-75	3243F/67-75-80	3313F/70-78-81	3386F/73-80-83
34	3639	3077F/60-70-76	3278F/68-76-81	3350F/70-78-82	3436F/73-80-84
32	3667	3096F/60-70-76	3298F/68-77-81	3371F/71-79-83	3478F/73-80-84
30	3668	3105F/60-71-76	3308F/68-77-81	3382F/71-79-83	3493F/73-80-84
28	3669	3113F/60-71-77	3318F/69-77-82	3392F/71-79-83	3503F/73-81-84
26	3670	3122F/61-71-77	3329F/69-78-82	3403F/72-80-84	3514F/73-81-84
24	3671	3131F/61-71-77	3339F/69-78-82	3415F/72-80-84	3524F/74-81-84
22	3671	3140F/61-72-77	3349F/70-78-82	3435F/72-80-84	3535F/74-82-85
20	3672	3149F/62-72-77	3360F/70-78-83	3455F/72-80-84	3546F/75-82-85
18	3673	3158F/62-72-78	3370F/70-79-83	3476F/72-80-84	3556F/75-82-85
16	3674	3167F/62-73-78	3381F/71-79-83	3492F/72-80-84	3567F/75-83-85
14	3675	3177F/63-73-78	3391F/71-79-83	3503F/73-81-84	3578F/76-83-86
12	3676	3186F/63-73-78	3402F/71-80-84	3514F/73-81-84	3589F/76-83-86
10	3677	3196F/63-73-79	3415F/72-80-84	3525F/74-81-84	3600F/76-84-86
8	3677	3205F/64-74-79	3436F/72-80-84	3536F/74-82-85	3612F/77-84-87
6	3678	3215F/64-74-79	3456F/72-80-84	3547F/74-82-85	3623F/77-84-87
4	3678	3225F/64-74-79	3477F/72-80-84	3558F/75-82-85	3634F/78-85-87
2	3679	3235F/65-75-80	3493F/72-80-84	3569F/75-83-86	3646F/78-85-87
0	3679	3244F/65-75-80	3504F/72-81-84	3580F/75-83-86	3657F/78-85-88
-2	3679	3254F/65-75-80	3515F/73-81-84	3591F/76-83-86	3669F/79-86-88
-4	3680	3264F/66-76-80	3526F/73-81-85	3602F/76-84-86	3681F/79-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y3)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y3) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3680	3274F/66-76-81	3537F/74-82-85	3614F/77-84-87	3693F/79-86-88 3686**80-87-89
-8	3680	3285F/66-76-81	3548F/74-82-85	3625F/77-84-87	3705F/80-86-88 3692**80-87-89
-10	3680	3295F/67-77-81	3559F/74-82-85	3637F/77-85-87	3717F/80-86-88 3697**81-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y3)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y4) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2203F/39-43-49	2377F/47-50-54	2437F/50-52-56	2499F/53-54-58
58A	2760	2236F/39-44-50	2412F/48-51-55	2473F/51-53-57	2535F/54-56-59
56A	2827	2273F/40-45-52	2452F/49-52-57	2514F/52-54-59	2577F/55-57-60
54	2896	2312F/41-47-53	2493F/50-53-58	2556F/53-56-60	2620F/56-58-62
52	2974	2355F/42-48-54	2539F/51-55-60	2603F/54-57-61	2668F/57-59-63
50	3051	2398F/43-49-56	2584F/52-56-61	2648F/55-58-63	2714F/58-60-65
48	3130	2440F/44-50-57	2629F/53-57-63	2694F/56-59-64	2759F/59-61-66
46	3207	2479F/44-51-58	2671F/54-58-64	2737F/57-60-66	2800F/59-62-67
44	3283	2518F/45-52-60	2712F/54-59-65	2776F/57-61-67	2840F/60-64-69
42	3357	2558F/46-53-61	2752F/55-60-66	2816F/58-62-68	2880F/60-65-70
40	3433	2596F/47-54-62	2789F/56-61-68	2853F/58-63-69	2918F/61-65-71
38	3506	2631F/48-55-63	2822F/56-62-69	2887F/59-64-70	2953F/61-66-72
36	3574	2669F/48-56-65	2857F/56-63-70	2923F/59-65-71	2990F/62-67-73
34	3639	2698F/49-57-66	2888F/57-63-71	2954F/59-66-72	3022F/62-68-74
32	3667	2714F/49-57-66	2905F/57-64-71	2972F/60-66-73	3041F/62-68-75
30	3668	2722F/49-58-66	2914F/57-64-71	2981F/60-66-73	3050F/63-69-75
28	3669	2729F/49-58-66	2923F/58-64-72	2990F/60-67-73	3059F/63-69-75
26	3670	2737F/50-58-67	2931F/58-65-72	2999F/61-67-74	3068F/63-69-75
24	3671	2745F/50-58-67	2940F/58-65-72	3008F/61-67-74	3078F/64-70-76
22	3671	2753F/50-59-67	2949F/58-65-72	3017F/61-68-74	3087F/64-70-76
20	3672	2761F/51-59-67	2958F/59-66-73	3026F/62-68-74	3096F/64-70-76
18	3673	2769F/51-59-68	2966F/59-66-73	3036F/62-68-75	3106F/65-71-76
16	3674	2777F/51-59-68	2975F/59-66-73	3045F/62-69-75	3115F/65-71-77
14	3675	2785F/51-60-68	2985F/60-67-73	3054F/63-69-75	3125F/65-71-77
12	3676	2793F/52-60-68	2994F/60-67-73	3064F/63-69-75	3135F/66-72-77
10	3677	2802F/52-60-68	3003F/60-67-74	3074F/63-70-76	3145F/66-72-77
8	3677	2810F/52-61-69	3013F/61-67-74	3083F/64-70-76	3155F/66-72-78
6	3678	2819F/53-61-69	3022F/61-68-74	3093F/64-70-76	3165F/67-72-78
4	3678	2827F/53-61-69	3032F/61-68-74	3103F/64-70-76	3176F/67-73-78
2	3679	2836F/53-61-69	3041F/62-68-75	3112F/65-71-77	3186F/67-73-78
0	3679	2844F/54-62-70	3051F/62-69-75	3122F/65-71-77	3196F/68-73-79
-2	3679	2853F/54-62-70	3060F/62-69-75	3132F/65-71-77	3206F/68-74-79
-4	3680	2862F/54-62-70	3070F/63-69-75	3142F/66-72-77	3217F/69-74-79
-6	3680	2870F/55-63-70	3080F/63-70-76	3153F/66-72-78	3227F/69-74-79
-8	3680	2879F/55-63-70	3090F/64-70-76	3163F/66-72-78	3238F/69-75-80
-10	3680	2888F/55-63-71	3099F/64-70-76	3173F/67-73-78	3249F/70-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y4)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 15(Y5) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	1969F/27-34-42	2136F/37-41-47	2195F/40-43-49	2255F/43-45-51
58A	2760	1998F/28-35-43	2167F/38-42-48	2227F/41-44-50	2288F/44-46-52
56A	2827	2031F/29-36-44	2203F/38-43-49	2263F/41-45-51	2325F/44-47-53
54	2896	2065F/30-37-45	2240F/39-44-51	2301F/42-46-53	2363F/45-48-54
52	2974	2103F/30-38-47	2281F/40-45-52	2343F/43-47-54	2406F/46-50-56
50	3051	2141F/31-39-48	2321F/41-46-54	2384F/44-48-55	2448F/47-51-57
48	3130	2178F/32-40-49	2361F/42-47-55	2425F/45-49-57	2490F/48-52-59
46	3207	2213F/33-41-51	2398F/42-48-56	2463F/46-51-58	2529F/49-53-60
44	3283	2248F/33-42-52	2436F/43-49-57	2501F/46-52-59	2568F/50-54-61
42	3357	2284F/34-43-53	2474F/44-50-59	2540F/47-53-61	2607F/50-55-62
40	3433	2317F/35-44-54	2510F/45-51-60	2577F/48-54-62	2645F/51-56-64
38	3506	2349F/35-45-55	2544F/45-52-61	2611F/49-54-63	2680F/52-57-65
36	3574	2382F/36-46-57	2579F/46-53-62	2647F/49-55-64	2717F/53-58-66
34	3639	2410F/36-46-57	2609F/47-54-63	2679F/50-56-65	2749F/53-59-67
32	3667	2426F/37-47-58	2627F/47-54-64	2696F/50-57-66	2766F/54-59-67
30	3668	2434F/37-47-58	2635F/47-54-64	2705F/51-57-66	2774F/54-59-68
28	3669	2441F/38-47-58	2644F/48-55-64	2714F/51-57-66	2782F/54-60-68
26	3670	2449F/38-48-59	2652F/48-55-64	2723F/52-58-66	2791F/55-60-68
24	3671	2457F/38-48-59	2661F/49-55-65	2731F/52-58-67	2799F/55-60-68
22	3671	2464F/39-48-59	2669F/49-56-65	2740F/52-58-67	2808F/55-61-69
20	3672	2472F/39-48-59	2678F/49-56-65	2749F/53-59-67	2817F/55-61-69
18	3673	2480F/39-49-60	2687F/50-56-65	2758F/53-59-67	2825F/56-61-69
16	3674	2488F/40-49-60	2696F/50-57-66	2766F/53-59-67	2834F/56-61-69
14	3675	2496F/40-49-60	2705F/51-57-66	2775F/54-59-68	2843F/56-62-70
12	3676	2504F/40-50-60	2714F/51-57-66	2783F/54-60-68	2852F/57-62-70
10	3677	2512F/41-50-60	2723F/51-58-66	2792F/54-60-68	2861F/57-62-70
8	3677	2521F/41-50-61	2732F/52-58-67	2801F/55-60-68	2870F/57-63-70
6	3678	2529F/42-51-61	2741F/52-58-67	2810F/55-61-69	2880F/58-63-71
4	3678	2537F/42-51-61	2750F/52-59-67	2819F/55-61-69	2889F/58-63-71
2	3679	2546F/42-51-61	2759F/53-59-67	2828F/56-61-69	2898F/58-64-71
0	3679	2554F/43-51-62	2767F/53-59-68	2837F/56-62-69	2907F/59-64-71
-2	3679	2562F/43-52-62	2776F/53-59-68	2846F/56-62-70	2917F/59-64-71
-4	3680	2571F/44-52-62	2785F/54-60-68	2855F/57-62-70	2926F/59-65-72
-6	3680	2580F/44-52-62	2794F/54-60-68	2864F/57-62-70	2936F/60-65-72
-8	3680	2588F/44-53-63	2803F/54-60-68	2873F/57-63-70	2946F/60-65-72
-10	3680	2597F/45-53-63	2812F/55-61-69	2883F/58-63-71	2955F/61-66-72

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2050 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y5)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32L

WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2744*/59-62-64	2845*/61-62-64	2878*/61-62-64	2909*/61-62-64
		2741**64-67-68	2813**73-78-78	2819**74-79-79	2819**75-79-79
58A	2760	2790*/60-63-65	2893*/62-63-65	2927*/62-63-65	2961*/63-63-65
		2789**64-67-69	2862**74-78-78	2876**76-80-80	2876**76-80-80
56A	2827	2843*/61-65-67	2949*/63-65-67	2983*/64-65-67	3018*/64-65-67
		2845**64-68-69	2919**74-78-79	2941**77-82-82	2943**78-82-82
54	2896	2897*/63-67-69	3006*/65-67-69	3042*/65-67-69	3077*/66-67-69
		2903**64-68-70	2980**74-79-79	3003**78-83-83	3015**79-85-85
52	2974	2959*/64-69-71	3069*/66-70-72	3106*/67-70-72	3143*/67-70-72
			3048**74-79-80	3073**78-83-83	3097**81-87-87
50	3051	3008*/65-70-73	3131*/68-72-74	3169*/68-72-74	3207*/69-72-74
			3114**74-80-81	3141**78-83-84	3165**81-87-87
48	3130	3056*/65-71-74	3193*/69-74-76	3232*/70-74-76	3271*/70-74-76
			3180**74-80-81	3207**78-84-85	3233**81-87-88
46	3207	3102*/65-73-75	3252*/70-76-78	3293*/71-76-78	3336*/72-76-78
			3244**74-80-82	3272**78-84-85	3301**81-88-88
44	3283	3147*/66-74-77	3311*/72-78-80	3356*/72-78-80	3400*/73-78-80
			3308**74-81-82	3339**78-84-86	3368**81-88-89
42	3357	3191*/66-75-78	3369*/73-80-82	3419*/74-80-82	3501*/74-80-82
			3370**74-81-83	3401**78-85-86	3442**81-88-89
40	3433	3234*/66-76-79	3433*/74-81-83	3508*/74-81-83	3552*/75-81-83
			3438**74-81-83	3484**77-85-86	3515**81-89-90
38	3506	3274*/67-77-80	3506*/74-82-84	3547*/74-82-84	3593*/75-82-84
				3541**78-85-87	3573**81-89-90
36	3574	3317*/67-78-81	3552*/74-83-85	3600*/75-83-85	3647*/76-83-85
				3597**78-86-88	3631**81-89-91
34	3639	3347B/66-78-82	3591*/75-84-86	3649*/76-85-87	3697*/77-85-87
				3650**78-86-88	3685**81-90-91
32	3667	3366B/66-79-83	3614*/75-84-87	3674*/77-86-88	3722*/78-86-88
				3675**78-86-89	3711**82-90-92
30	3668	3376B/67-79-83	3623*/75-84-87	3680*/77-86-88	3729*/78-86-88
				3681**78-87-89	3716**82-91-92
28	3669	3386B/67-79-83	3633*/76-85-87	3687*/77-86-88	3736*/78-86-88
				3686**79-88-89	3722**83-91-93
26	3670	3395B/67-80-83	3643*/76-85-87	3695*/77-86-88	3743*/78-86-88
				3692**79-88-90	3727**83-92-93
24	3671	3405B/68-80-84	3653*/76-85-88	3702*/77-86-88	3750*/78-86-88
				3697**80-89-90	3733**84-92-94
22	3671	3419B/68-80-84	3663*/77-86-88	3709*/77-86-88	3757*/78-86-88
				3703**80-89-91	3738**84-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32L	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32L WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3436B/68-80-84	3672*/77-86-88	3716*/77-86-88	3764*/78-86-88
				3708**81-90-91	3744**85-93-95
18	3673	3453B/68-80-84	3674*/77-86-88	3723*/78-86-88	3771*/78-86-88
			3678**78-86-88	3714**81-90-92	3749**85-94-95
16	3674	3470B/68-80-84	3681*/77-86-88	3730*/78-86-88	3779*/79-86-88
			3684**78-87-89	3720**82-91-92	3755**86-95-96
14	3675	3488B/69-80-84	3689*/77-86-88	3737*/78-86-88	3786*/79-86-88
			3689**79-87-89	3726**82-91-93	3761**86-95-96
12	3676	3498B/69-81-84	3696*/77-86-88	3745*/78-86-88	3787F/79-86-88
			3695**79-88-90	3732**83-92-93	3767**87-96-97
10	3677	3508B/69-81-84	3703*/77-86-88	3752*/78-86-88	3787F/79-86-88
			3701**80-88-90	3738**83-92-94	3772**87-96-97
8	3677	3518B/70-81-84	3711*/77-86-88	3760*/78-86-88	3787F/79-86-88
			3707**80-89-91	3743**84-93-94	3778**88-97-98
6	3678	3529B/70-81-85	3718*/77-86-88	3767*/78-86-88	3787F/79-86-88
			3713**81-90-91	3749**84-93-95	3784**88-97-98
4	3678	3539B/71-82-85	3725*/77-86-88	3774*/78-86-88	3787F/79-86-88
			3718**81-90-92	3754**85-94-95	3787**88-98-98
2	3679	3549B/71-82-85	3732*/77-86-88	3781*/78-86-88	3787F/79-86-88
			3724**82-91-92	3760**85-95-96	3787**88-98-98
0	3679	3559B/71-82-85	3739*/78-86-88	3787F/78-86-88	3787F/79-86-88
			3730**82-91-93	3766**86-95-96	3787**88-98-98
-2	3679	3569B/72-83-86	3747*/78-86-88	3787F/79-86-88	3787F/79-86-88
			3736**83-92-93	3771**87-96-97	3787**88-98-98
-4	3680	3580B/72-83-86	3754*/78-86-88	3787F/79-86-88	3787F/79-86-88
			3741**83-92-94	3777**87-96-97	3787**89-98-98
-6	3680	3590B/73-83-86	3761*/78-86-88	3787F/79-86-88	3787F/80-86-88
			3746**84-93-94	3782**88-97-98	3787**89-98-98
-8	3680	3601B/73-84-86	3768*/78-86-88	3787F/79-86-88	3787F/80-86-88
			3752**84-94-95	3787**88-98-98	3787**89-98-98
-10	3680	3612B/74-84-87	3775*/78-86-88	3787F/79-86-88	3787F/80-86-88
			3758**85-94-95	3787**88-98-98	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32L 11 151 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32L(C7) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	1966F/27-34-42	2133F/37-41-47	2192F/40-43-49	2252F/43-45-51
58A	2760	1995F/28-35-43	2164F/37-42-48	2224F/41-44-50	2284F/44-46-52
56A	2827	2028F/29-36-44	2200F/38-43-49	2260F/41-45-51	2322F/44-47-53
54	2896	2062F/30-37-45	2237F/39-44-51	2298F/42-46-52	2360F/45-48-54
52	2974	2100F/30-38-47	2278F/40-45-52	2340F/43-47-54	2403F/46-50-56
50	3051	2138F/31-39-48	2318F/41-46-53	2381F/44-48-55	2444F/47-51-57
48	3130	2175F/32-40-49	2358F/42-47-55	2422F/45-49-57	2486F/48-52-59
46	3207	2210F/32-41-51	2395F/42-48-56	2460F/46-50-58	2525F/49-53-60
44	3283	2245F/33-42-52	2432F/43-49-57	2498F/46-51-59	2564F/50-54-61
42	3357	2281F/34-43-53	2470F/44-50-59	2536F/47-52-60	2604F/50-55-62
40	3433	2314F/35-44-54	2507F/45-51-60	2573F/48-53-62	2642F/51-56-64
38	3506	2346F/35-45-55	2540F/45-52-61	2607F/49-54-63	2677F/52-57-65
36	3574	2379F/36-45-56	2576F/46-53-62	2644F/49-55-64	2714F/53-58-66
34	3639	2407F/36-46-57	2606F/47-54-63	2675F/50-56-65	2745F/53-59-67
32	3667	2423F/37-47-58	2623F/47-54-64	2693F/50-57-65	2762F/54-59-67
30	3668	2430F/37-47-58	2632F/47-54-64	2702F/51-57-66	2771F/54-59-68
28	3669	2438F/37-47-58	2640F/48-55-64	2710F/51-57-66	2779F/54-60-68
26	3670	2446F/38-47-59	2649F/48-55-64	2719F/52-57-66	2788F/55-60-68
24	3671	2453F/38-48-59	2657F/49-55-64	2728F/52-58-66	2796F/55-60-68
22	3671	2461F/39-48-59	2666F/49-56-65	2737F/52-58-67	2805F/55-60-68
20	3672	2469F/39-48-59	2675F/49-56-65	2746F/53-58-67	2813F/55-61-69
18	3673	2477F/39-49-59	2683F/50-56-65	2754F/53-59-67	2822F/56-61-69
16	3674	2485F/40-49-60	2692F/50-56-65	2763F/53-59-67	2831F/56-61-69
14	3675	2493F/40-49-60	2701F/50-57-66	2771F/54-59-68	2840F/56-62-69
12	3676	2501F/40-50-60	2710F/51-57-66	2780F/54-60-68	2849F/57-62-70
10	3677	2509F/41-50-60	2719F/51-57-66	2789F/54-60-68	2858F/57-62-70
8	3677	2517F/41-50-61	2728F/52-58-66	2798F/55-60-68	2867F/57-63-70
6	3678	2526F/42-50-61	2738F/52-58-67	2806F/55-60-69	2876F/58-63-70
4	3678	2534F/42-51-61	2747F/52-58-67	2815F/55-61-69	2885F/58-63-71
2	3679	2542F/42-51-61	2755F/53-59-67	2824F/56-61-69	2894F/58-64-71
0	3679	2551F/43-51-62	2764F/53-59-67	2833F/56-61-69	2904F/59-64-71
-2	3679	2559F/43-52-62	2773F/53-59-68	2842F/56-62-70	2913F/59-64-71
-4	3680	2568F/43-52-62	2782F/54-60-68	2851F/57-62-70	2923F/59-64-72
-6	3680	2576F/44-52-62	2791F/54-60-68	2861F/57-62-70	2932F/60-65-72
-8	3680	2585F/44-53-63	2800F/54-60-68	2870F/57-63-70	2942F/60-65-72
-10	3680	2594F/45-53-63	2809F/55-61-69	2879F/58-63-70	2952F/61-65-72

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2048 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32L(C7) 11 151 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32L(C8) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2201F/39-43-49	2375F/47-50-54	2435F/50-52-56	2496F/53-54-58
58A	2760	2234F/39-44-50	2410F/48-51-55	2471F/51-53-57	2533F/54-55-59
56A	2827	2271F/40-45-51	2450F/49-52-57	2512F/52-54-59	2574F/55-57-60
54	2896	2310F/41-46-53	2491F/50-53-58	2554F/53-55-60	2617F/56-58-62
52	2974	2353F/42-48-54	2536F/51-54-60	2600F/54-57-61	2665F/57-59-63
50	3051	2396F/43-49-56	2581F/52-56-61	2646F/55-58-63	2712F/58-60-65
48	3130	2438F/44-50-57	2626F/53-57-62	2691F/56-59-64	2757F/59-61-66
46	3207	2477F/44-51-58	2668F/54-58-64	2734F/57-60-66	2797F/59-62-67
44	3283	2516F/45-52-60	2710F/54-59-65	2774F/57-61-67	2837F/60-63-69
42	3357	2556F/46-53-61	2750F/55-60-66	2813F/58-62-68	2878F/60-64-70
40	3433	2594F/47-54-62	2787F/56-61-68	2851F/58-63-69	2916F/61-65-71
38	3506	2629F/47-55-63	2820F/56-62-69	2885F/59-64-70	2951F/61-66-72
36	3574	2667F/48-56-65	2855F/56-63-70	2921F/59-65-71	2988F/62-67-73
34	3639	2696F/49-57-65	2886F/57-63-71	2952F/59-66-72	3020F/62-68-74
32	3667	2712F/49-57-66	2903F/57-64-71	2970F/60-66-73	3038F/62-68-75
30	3668	2720F/49-57-66	2912F/57-64-71	2979F/60-66-73	3048F/63-69-75
28	3669	2727F/49-58-66	2920F/58-64-72	2988F/60-67-73	3057F/63-69-75
26	3670	2735F/50-58-67	2929F/58-65-72	2997F/61-67-74	3066F/63-69-75
24	3671	2743F/50-58-67	2938F/58-65-72	3006F/61-67-74	3075F/64-70-76
22	3671	2751F/50-59-67	2947F/59-65-72	3015F/61-68-74	3084F/64-70-76
20	3672	2759F/51-59-67	2955F/59-66-72	3024F/62-68-74	3094F/64-70-76
18	3673	2767F/51-59-67	2964F/59-66-73	3033F/62-68-75	3103F/65-71-76
16	3674	2775F/51-59-68	2973F/59-66-73	3043F/62-68-75	3113F/65-71-77
14	3675	2783F/51-60-68	2982F/60-66-73	3052F/63-69-75	3123F/65-71-77
12	3676	2791F/52-60-68	2992F/60-67-73	3062F/63-69-75	3133F/66-71-77
10	3677	2800F/52-60-68	3001F/60-67-74	3071F/63-69-75	3143F/66-72-77
8	3677	2808F/52-61-69	3010F/61-67-74	3081F/64-70-76	3153F/66-72-78
6	3678	2817F/53-61-69	3020F/61-68-74	3090F/64-70-76	3163F/67-72-78
4	3678	2825F/53-61-69	3029F/61-68-74	3100F/64-70-76	3173F/67-73-78
2	3679	2834F/53-61-69	3039F/62-68-75	3110F/65-71-77	3183F/68-73-78
0	3679	2842F/54-62-70	3048F/62-69-75	3120F/65-71-77	3193F/68-73-79
-2	3679	2851F/54-62-70	3058F/62-69-75	3130F/65-71-77	3204F/68-74-79
-4	3680	2860F/54-62-70	3067F/63-69-75	3140F/66-72-77	3214F/69-74-79
-6	3680	2868F/55-63-70	3077F/63-70-76	3150F/66-72-78	3225F/69-74-79
-8	3680	2877F/55-63-70	3087F/64-70-76	3160F/66-72-78	3236F/69-75-80
-10	3680	2886F/55-63-71	3097F/64-70-76	3171F/67-73-78	3246F/70-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32L(C8) 11 151 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32L(C9) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2349F/45-49-54	2526*/53-55-59	2584*/56-58-60	2641*/59-60-62
58A	2760	2385F/46-50-55	2563F/54-57-60	2623*/57-59-62	2682*/60-61-63
56A	2827	2425F/47-51-56	2606F/55-58-61	2668*/58-60-63	2728*/61-62-65
54	2896	2466F/48-52-57	2650F/56-59-63	2714F/59-61-64	2774*/62-63-66
52	2974	2512F/49-54-59	2699F/57-60-64	2760F/60-62-66	2822F/62-64-67
50	3051	2558F/50-55-60	2742F/58-61-65	2803F/60-63-67	2866F/63-66-69
48	3130	2603F/51-56-62	2786F/58-62-67	2847F/61-64-68	2911F/64-67-70
46	3207	2645F/51-57-63	2825F/59-63-68	2888F/61-66-70	2952F/64-68-71
44	3283	2682F/52-58-64	2865F/59-64-69	2929F/62-67-71	2994F/65-69-73
42	3357	2719F/52-59-66	2904F/60-65-71	2969F/62-68-72	3035F/65-70-74
40	3433	2755F/52-60-67	2943F/60-66-72	3008F/63-68-73	3075F/66-71-75
38	3506	2788F/53-61-68	2978F/61-67-73	3044F/63-69-74	3112F/66-72-76
36	3574	2823F/53-62-69	3015F/61-68-74	3082F/64-70-76	3150F/66-72-77
34	3639	2853F/53-62-70	3047F/61-69-75	3115F/64-71-77	3184F/67-73-78
32	3667	2870F/54-63-70	3066F/62-69-75	3134F/64-72-77	3204F/67-74-79
30	3668	2878F/54-63-70	3075F/62-70-76	3143F/65-72-77	3213F/67-74-79
28	3669	2886F/54-63-71	3084F/62-70-76	3152F/65-72-78	3223F/68-74-79
26	3670	2895F/54-64-71	3093F/63-70-76	3162F/65-72-78	3233F/68-75-80
24	3671	2903F/55-64-71	3102F/63-70-76	3171F/66-73-78	3242F/68-75-80
22	3671	2911F/55-64-71	3111F/63-71-77	3181F/66-73-78	3252F/69-75-80
20	3672	2920F/55-64-72	3120F/64-71-77	3190F/66-73-79	3262F/69-76-80
18	3673	2928F/56-65-72	3130F/64-71-77	3200F/67-74-79	3272F/69-76-81
16	3674	2937F/56-65-72	3139F/64-72-77	3210F/67-74-79	3282F/70-76-81
14	3675	2945F/56-65-72	3149F/65-72-77	3220F/67-74-79	3293F/70-77-81
12	3676	2954F/57-66-72	3159F/65-72-78	3230F/68-75-80	3304F/71-77-81
10	3677	2963F/57-66-73	3168F/65-73-78	3240F/68-75-80	3315F/71-77-82
8	3677	2972F/57-66-73	3178F/66-73-78	3251F/68-75-80	3326F/71-77-82
6	3678	2981F/57-66-73	3188F/66-73-78	3261F/69-76-80	3337F/72-78-82
4	3678	2990F/58-67-73	3198F/66-74-79	3271F/69-76-81	3348F/72-78-82
2	3679	2999F/58-67-74	3208F/67-74-79	3281F/69-76-81	3359F/72-78-83
0	3679	3008F/58-67-74	3218F/67-74-79	3292F/70-77-81	3370F/73-79-83
-2	3679	3017F/59-68-74	3228F/67-75-80	3303F/70-77-81	3382F/73-79-83
-4	3680	3026F/59-68-74	3239F/68-75-80	3314F/71-77-82	3393F/73-79-83
-6	3680	3036F/59-68-75	3249F/68-75-80	3325F/71-77-82	3405F/74-80-84
-8	3680	3045F/60-69-75	3260F/68-76-80	3337F/71-78-82	3422F/74-80-84
-10	3680	3054F/60-69-75	3270F/69-76-81	3348F/72-78-82	3444F/74-80-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2812 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32L(C9) 11 151 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2654*/58-60-62	2769*/61-62-64	2804*/61-62-64	2837*/61-62-64
			2757**67-69-70	2782**70-73-73	2805**73-76-77
58A	2760	2691*/58-61-63	2815*/62-63-65	2851*/62-63-65	2887*/63-63-65
			2806**67-70-71	2831**70-73-74	2855**74-77-77
56A	2827	2734*/59-62-65	2868*/63-65-67	2905*/64-65-67	2942*/64-65-67
			2862**67-70-71	2887**71-74-75	2912**74-77-78
54	2896	2778*/59-63-66	2923*/65-67-69	2960*/65-67-69	2998*/66-67-69
			2920**68-70-72	2947**71-74-75	2973**74-78-78
52	2974	2825*/60-65-68	2983*/66-70-72	3022*/67-70-72	3061*/67-70-72
			2986**68-71-73	3013**71-75-76	3040**74-78-79
50	3051	2872*/60-66-69	3046*/68-71-74	3082*/68-72-74	3122*/69-72-74
				3078**71-75-77	3106**75-79-80
48	3130	2918*/61-67-70	3095*/68-73-75	3142*/70-74-76	3183*/70-74-76
				3143**71-75-77	3172**75-79-80
46	3207	2961*/61-68-72	3142*/69-74-76	3204*/71-76-78	3242*/72-76-78
					3236**75-79-81
44	3283	3003*/61-69-73	3187*/69-75-78	3250*/72-77-79	3301*/73-78-80
					3300**75-80-82
42	3357	3045F/62-70-74	3233*/70-76-79	3297*/72-78-81	3359*/74-80-82
					3361**75-80-82
40	3433	3085F/62-71-75	3276*/70-77-80	3344*/73-79-82	3414*/75-81-83
38	3506	3121F/62-72-76	3318*/70-78-81	3387*/73-80-83	3491*/75-81-83
36	3574	3160F/63-73-78	3362*/71-79-82	3449*/73-81-83	3535*/75-82-85
34	3639	3194F/63-74-79	3401*/71-80-83	3505*/73-81-84	3574*/76-83-86
32	3667	3213F/63-74-79	3432*/71-80-84	3527*/73-81-84	3597*/76-84-86
30	3668	3222F/63-74-79	3449*/71-80-84	3536*/73-82-85	3606*/76-84-86
28	3669	3231F/64-75-80	3467*/71-80-84	3546*/74-82-85	3616*/77-84-87
26	3670	3240F/64-75-80	3486*/71-80-84	3556*/74-82-85	3626*/77-84-87
24	3671	3249F/64-75-80	3496*/72-81-84	3566*/75-83-85	3637*/77-85-87
22	3671	3259F/65-76-80	3506*/72-81-84	3576*/75-83-86	3647*/78-85-87
20	3672	3268F/65-76-80	3516*/72-81-84	3586*/75-83-86	3657*/78-85-88
18	3673	3277F/65-76-81	3525*/73-81-84	3596*/76-84-86	3667*/79-86-88
16	3674	3287F/66-76-81	3535*/73-82-85	3606*/76-84-86	3674*/79-86-88
					3676**79-86-88
14	3675	3297F/66-77-81	3545*/74-82-85	3616*/76-84-87	3680*/79-86-88
					3682**80-87-89
12	3676	3307F/66-77-81	3555*/74-82-85	3627*/77-84-87	3688*/79-86-88
					3688**80-87-89
10	3677	3318F/67-77-82	3566*/74-83-85	3637*/77-85-87	3695*/79-86-88
					3694**81-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3585 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32LC10	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32LC10 WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

8	3677	3328F/67-78-82	3576*/75-83-86	3648*/78-85-87	3702*/79-86-88
					3699**81-88-90
6	3678	3338F/67-78-82	3586*/75-83-86	3658*/78-85-88	3710*/79-86-88
					3705**82-89-91
4	3678	3349F/68-78-82	3596*/75-84-86	3669*/78-86-88	3717*/79-86-88
					3711**82-89-91
2	3679	3359*/68-78-83	3607*/76-84-86	3679*/79-86-88	3724*/79-86-88
					3717**83-90-92
0	3679	3369*/68-79-83	3617*/76-84-87	3681*/78-86-88	3731*/79-86-88
				3685**79-87-89	3723**83-91-92
-2	3679	3379*/69-79-83	3627*/77-84-87	3689*/79-86-88	3739*/79-86-88
				3690**80-87-89	3728**84-91-93
-4	3680	3389*/69-79-83	3638*/77-85-87	3696*/79-86-88	3746*/79-86-88
				3696**80-88-90	3734**84-92-93
-6	3680	3399*/69-80-83	3648*/77-85-87	3703*/79-86-88	3753*/80-86-88
				3702**81-88-90	3740**85-92-94
-8	3680	3409*/70-80-84	3659*/78-85-88	3710*/79-86-88	3760*/80-86-88
				3707**81-89-91	3745**85-93-94
-10	3680	3426*/70-80-84	3670*/78-86-88	3718*/79-86-88	3768*/80-86-88
				3713**82-89-91	3751**86-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3585 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32LC10	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2821F/59-62-64	2997F/60-62-64	3058F/61-62-64	3096F/61-62-64
		2755**64-69-70	2819**74-79-79	2819**74-79-79	2819**75-79-79
58A	2760	2858F/60-63-65	3036F/62-63-65	3098F/62-63-65	3158F/63-63-65
		2803**64-69-70	2872**74-80-80	2876**75-80-80	2876**76-80-80
56A	2827	2900F/61-65-67	3080F/63-65-67	3143F/63-65-67	3207F/64-65-67
		2859**64-70-71	2929**74-80-80	2943**77-82-82	2943**77-82-82
54	2896	2943F/62-67-69	3126F/64-67-69	3190F/65-67-69	3254F/65-67-69
		2917**64-70-72	2990**74-80-81	3012**78-84-84	3015**79-85-85
52	2974	2991F/64-70-72	3177F/66-70-72	3241F/66-70-72	3308F/67-70-72
		2982**64-70-72	3060**74-81-81	3083**78-84-85	3099**82-87-87
50	3051	3038F/64-71-73	3226F/67-72-74	3292F/68-72-74	3361F/68-72-74
			3126**75-81-82	3151**78-85-85	3175**82-88-88
48	3130	3084F/65-72-75	3275F/69-74-76	3344F/69-74-76	3417F/70-74-76
			3192**75-82-83	3218**78-85-86	3242**82-89-89
46	3207	3128F/65-73-76	3323F/70-76-78	3394F/71-76-78	3500F/71-76-78
			3257**75-82-83	3284**78-86-86	3311**82-89-90
44	3283	3171F/66-74-77	3371F/71-78-80	3470F/72-78-80	3548F/73-78-80
			3322**75-82-84	3351**78-86-87	3380**82-89-90
42	3357	3214F/66-75-79	3424F/72-80-82	3525F/73-80-82	3595F/74-80-82
			3384**75-83-85	3416**78-86-88	3458**81-90-90
40	3433	3255F/66-76-80	3499F/73-81-83	3569F/74-81-83	3641F/75-81-83
			3459**74-83-85	3497**78-86-88	3528**81-90-91
38	3506	3295F/66-77-81	3540F/73-82-84	3611F/74-82-84	3684F/75-82-84
			3522**74-83-85	3555**78-87-88	3586**81-90-91
36	3574	3328B/66-78-82	3582F/74-83-85	3654F/75-83-85	3728F/76-83-85
			3578**74-84-86	3611**78-87-89	3643**81-91-92
34	3639	3356B/65-79-82	3621F/74-84-87	3693F/76-85-87	3768F/77-85-87
				3664**78-88-89	3698**81-91-93
32	3667	3376B/65-79-83	3640B/74-85-87	3716F/76-86-88	3787F/77-86-88
				3690**78-88-90	3724**82-92-93
30	3668	3387B/66-79-83	3650B/75-85-87	3726F/77-86-88	3787F/77-86-88
				3695**78-89-90	3730**82-92-94
28	3669	3397B/66-80-83	3661B/75-85-88	3737F/77-86-88	3787F/78-86-88
				3701**79-89-91	3735**83-93-94
26	3670	3407B/66-80-84	3670B/75-86-88	3748F/77-86-88	3787F/78-86-88
			3671**75-86-88	3706**79-90-91	3740**83-93-94
24	3671	3422B/67-80-84	3682B/76-86-88	3759F/77-86-88	3787F/78-86-88
			3677**76-86-89	3712**80-90-92	3746**84-94-95
22	3671	3441B/67-80-84	3696F/76-86-88	3771F/77-86-88	3787F/78-86-88
			3683**77-87-89	3718**80-91-92	3751**84-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3459B/67-80-84	3706F/76-86-88	3782F/77-86-88	3787F/78-86-88
			3688**77-87-89	3723**81-91-93	3757**85-95-96
18	3673	3479B/67-80-84	3717F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3694**78-88-90	3729**81-92-93	3762**85-95-96
16	3674	3493B/67-80-84	3729F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3699**78-89-90	3734**82-92-94	3768**86-96-97
14	3675	3503B/68-81-84	3740F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3705**79-89-91	3740**82-93-94	3774**86-97-97
12	3676	3514B/68-81-84	3751F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3711**79-90-91	3746**83-93-95	3780**87-97-98
10	3677	3525B/68-81-84	3763F/77-86-88	3787F/78-86-88	3787F/78-86-88
			3717**80-90-92	3752**83-94-95	3785**87-98-98
8	3677	3536B/69-82-85	3774F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3723**80-91-92	3757**84-94-96	3787**88-98-99
6	3678	3547B/69-82-85	3786F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3729**81-91-93	3763**84-95-96	3787**88-98-98
4	3678	3558B/69-82-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3735**81-92-93	3769**85-96-97	3787**88-98-98
2	3679	3569B/70-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3740**82-92-94	3774**86-96-97	3787**88-98-98
0	3679	3580B/70-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3745**82-93-94	3780**86-97-98	3787**88-98-98
-2	3679	3591B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3751**83-94-95	3786**87-97-98	3787**88-98-98
-4	3680	3602B/71-84-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3756**83-94-95	3787**87-98-98	3787**88-98-98
-6	3680	3614B/71-84-87	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3762**84-95-96	3787**87-98-98	3787**88-98-98
-8	3680	3625B/72-84-87	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3767**84-95-96	3787**87-98-98	3787**88-98-98
-10	3680	3637B/72-85-87	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3773**85-96-97	3787**87-98-98	3787**88-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R(A6) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	1980F/28-34-42	2148F/37-41-47	2208F/40-44-49	2268F/43-46-51
58A	2760	2009F/29-35-43	2180F/38-42-49	2240F/41-45-50	2301F/44-47-52
56A	2827	2043F/29-36-44	2216F/39-43-50	2276F/42-46-52	2339F/45-48-53
54	2896	2077F/30-37-46	2253F/40-44-51	2314F/43-47-53	2377F/46-49-55
52	2974	2115F/31-38-47	2294F/40-45-53	2356F/44-48-54	2420F/47-50-56
50	3051	2153F/32-39-48	2334F/41-47-54	2398F/44-49-56	2462F/48-51-58
48	3130	2191F/32-41-50	2375F/42-48-55	2439F/45-50-57	2504F/48-52-59
46	3207	2226F/33-41-51	2412F/43-49-57	2477F/46-51-58	2543F/49-53-60
44	3283	2261F/34-42-52	2450F/44-50-58	2515F/47-52-60	2582F/50-54-62
42	3357	2297F/34-43-54	2488F/44-51-59	2554F/48-53-61	2622F/51-56-63
40	3433	2331F/35-44-55	2524F/45-52-60	2591F/48-54-62	2660F/52-56-64
38	3506	2363F/36-45-56	2558F/46-52-61	2626F/49-55-63	2695F/52-57-65
36	3574	2396F/36-46-57	2594F/46-53-63	2662F/50-56-64	2732F/53-58-66
34	3639	2424F/37-47-58	2624F/47-54-64	2694F/50-57-65	2763F/54-59-67
32	3667	2440F/37-47-58	2642F/48-55-64	2712F/51-57-66	2780F/54-60-68
30	3668	2448F/38-48-59	2650F/48-55-64	2720F/51-58-66	2788F/54-60-68
28	3669	2455F/38-48-59	2659F/48-55-65	2729F/52-58-66	2797F/55-60-68
26	3670	2463F/38-48-59	2667F/49-56-65	2738F/52-58-67	2805F/55-60-69
24	3671	2471F/39-48-59	2676F/49-56-65	2747F/52-58-67	2814F/55-61-69
22	3671	2479F/39-49-60	2685F/49-56-65	2755F/53-59-67	2823F/55-61-69
20	3672	2487F/39-49-60	2693F/50-57-65	2764F/53-59-67	2831F/56-61-69
18	3673	2495F/40-49-60	2702F/50-57-66	2772F/53-59-68	2840F/56-62-69
16	3674	2503F/40-50-60	2711F/51-57-66	2780F/54-60-68	2849F/56-62-70
14	3675	2511F/41-50-60	2720F/51-57-66	2789F/54-60-68	2858F/57-62-70
12	3676	2519F/41-50-61	2729F/51-58-66	2798F/54-60-68	2867F/57-63-70
10	3677	2527F/41-50-61	2739F/52-58-67	2807F/55-60-69	2876F/57-63-70
8	3677	2536F/42-51-61	2748F/52-58-67	2816F/55-61-69	2885F/58-63-71
6	3678	2544F/42-51-61	2756F/52-59-67	2825F/55-61-69	2895F/58-64-71
4	3678	2552F/42-51-62	2765F/53-59-67	2834F/56-61-69	2904F/58-64-71
2	3679	2561F/43-52-62	2773F/53-59-68	2843F/56-62-70	2913F/59-64-71
0	3679	2569F/43-52-62	2782F/53-60-68	2852F/56-62-70	2923F/59-64-72
-2	3679	2578F/44-52-62	2791F/54-60-68	2861F/57-62-70	2932F/59-65-72
-4	3680	2586F/44-53-63	2800F/54-60-68	2870F/57-63-70	2942F/60-65-72
-6	3680	2595F/44-53-63	2809F/54-61-69	2879F/57-63-71	2951F/60-65-72
-8	3680	2604F/45-53-63	2818F/55-61-69	2889F/58-63-71	2961F/61-66-73
-10	3680	2613F/45-54-63	2827F/55-61-69	2898F/58-64-71	2971F/61-66-73

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2065 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A6) NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32R(A7) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
 KUALA LUMPUR
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2702	2244F/40-45-50	2420F/49-52-56	2480F/52-54-57	2542F/55-56-59
58A	2760	2277F/41-46-52	2455F/50-53-57	2517F/53-55-59	2579F/55-57-60
56A	2827	2316F/42-47-53	2496F/51-54-58	2558F/53-56-60	2622F/56-58-62
54	2896	2355F/43-48-54	2537F/52-55-59	2601F/54-57-61	2665F/57-59-63
52	2974	2399F/44-49-56	2584F/53-56-61	2648F/55-58-63	2714F/58-61-65
50	3051	2442F/44-51-57	2629F/54-57-62	2695F/56-60-64	2759F/59-62-66
48	3130	2485F/45-52-58	2675F/54-59-64	2741F/57-61-66	2803F/60-63-67
46	3207	2525F/46-53-60	2718F/55-60-65	2781F/58-62-67	2845F/61-64-69
44	3283	2565F/47-54-61	2757F/56-61-66	2820F/58-63-68	2884F/61-65-70
42	3357	2605F/48-55-62	2795F/56-62-68	2859F/59-64-69	2924F/62-66-71
40	3433	2644F/49-56-64	2832F/57-63-69	2896F/59-65-70	2962F/62-67-72
38	3506	2678F/49-57-65	2866F/57-63-70	2931F/60-66-71	2998F/62-68-73
36	3574	2712F/49-58-66	2901F/57-64-71	2968F/60-66-73	3035F/63-69-74
34	3639	2741F/50-58-67	2932F/58-65-72	2999F/60-67-74	3068F/63-69-75
32	3667	2757F/50-59-67	2950F/58-65-72	3018F/61-68-74	3087F/63-70-76
30	3668	2765F/50-59-67	2959F/58-66-73	3027F/61-68-74	3096F/64-70-76
28	3669	2773F/50-59-68	2968F/59-66-73	3036F/61-68-75	3105F/64-71-76
26	3670	2780F/51-60-68	2976F/59-66-73	3045F/62-69-75	3114F/64-71-77
24	3671	2788F/51-60-68	2985F/59-67-73	3054F/62-69-75	3124F/65-71-77
22	3671	2797F/51-60-68	2994F/60-67-73	3063F/62-69-75	3133F/65-71-77
20	3672	2805F/52-60-68	3003F/60-67-74	3073F/63-69-76	3143F/65-72-77
18	3673	2813F/52-61-69	3012F/60-67-74	3082F/63-70-76	3153F/66-72-78
16	3674	2821F/52-61-69	3021F/61-68-74	3091F/63-70-76	3162F/66-72-78
14	3675	2829F/53-61-69	3031F/61-68-74	3101F/64-70-76	3172F/66-73-78
12	3676	2838F/53-62-69	3040F/61-68-75	3111F/64-71-77	3183F/67-73-78
10	3677	2847F/53-62-70	3050F/62-69-75	3120F/64-71-77	3193F/67-73-79
8	3677	2855F/53-62-70	3059F/62-69-75	3130F/65-71-77	3203F/68-74-79
6	3678	2864F/54-62-70	3069F/62-69-75	3140F/65-72-77	3213F/68-74-79
4	3678	2872F/54-63-70	3078F/63-70-76	3150F/65-72-78	3224F/68-74-79
2	3679	2881F/54-63-71	3088F/63-70-76	3160F/66-72-78	3234F/69-75-80
0	3679	2890F/55-63-71	3098F/63-70-76	3170F/66-73-78	3244F/69-75-80
-2	3679	2898F/55-64-71	3107F/64-71-76	3180F/66-73-78	3255F/69-75-80
-4	3680	2907F/55-64-71	3117F/64-71-77	3190F/67-73-79	3266F/70-76-80
-6	3680	2916F/56-64-71	3127F/64-71-77	3201F/67-74-79	3276F/70-76-81
-8	3680	2925F/56-65-72	3137F/65-72-77	3211F/68-74-79	3288F/70-76-81
-10	3680	2934F/56-65-72	3147F/65-72-77	3222F/68-74-79	3299F/71-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2574 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A7) NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32R(A8) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2391F/47-51-55	2570F/55-57-60	2632F/58-59-62	2693F/60-61-63
58A	2760	2427F/47-52-56	2608F/56-58-61	2670F/59-60-63	2733F/61-62-65
56A	2827	2468F/48-53-57	2651F/57-59-62	2714F/60-61-64	2775F/62-64-66
54	2896	2510F/49-54-59	2695F/58-60-64	2756F/60-63-66	2818F/63-65-67
52	2974	2557F/50-55-60	2740F/58-62-65	2801F/61-64-67	2864F/63-66-69
50	3051	2603F/51-56-62	2784F/59-63-67	2845F/61-65-68	2909F/64-67-70
48	3130	2647F/52-58-63	2827F/59-64-68	2889F/62-66-70	2953F/65-68-71
46	3207	2685F/52-59-64	2868F/60-65-69	2931F/62-67-71	2996F/65-69-73
44	3283	2723F/53-59-65	2907F/60-66-70	2972F/63-68-72	3037F/66-70-74
42	3357	2760F/53-60-67	2947F/61-67-72	3013F/63-69-73	3079F/66-71-75
40	3433	2797F/53-61-68	2986F/61-68-73	3052F/64-70-75	3119F/66-72-76
38	3506	2830F/54-62-69	3021F/62-69-74	3088F/64-71-76	3156F/67-73-77
36	3574	2866F/54-63-70	3059F/62-69-75	3126F/65-72-77	3196F/67-74-78
34	3639	2896F/54-64-71	3092F/62-70-76	3160F/65-72-78	3230F/68-75-79
32	3667	2913F/54-64-71	3110F/63-71-76	3179F/65-73-78	3249F/68-75-80
30	3668	2921F/55-64-72	3120F/63-71-77	3188F/66-73-78	3259F/68-76-80
28	3669	2930F/55-65-72	3129F/63-71-77	3198F/66-74-79	3269F/69-76-81
26	3670	2938F/55-65-72	3138F/64-72-77	3208F/66-74-79	3279F/69-76-81
24	3671	2946F/56-65-72	3147F/64-72-77	3217F/67-74-79	3290F/69-76-81
22	3671	2955F/56-66-72	3157F/64-72-78	3227F/67-75-79	3300F/70-77-81
20	3672	2964F/56-66-73	3166F/65-73-78	3237F/67-75-80	3311F/70-77-81
18	3673	2972F/57-66-73	3176F/65-73-78	3247F/68-75-80	3321F/70-77-82
16	3674	2981F/57-66-73	3185F/65-73-78	3257F/68-75-80	3332F/71-78-82
14	3675	2990F/57-67-73	3195F/66-73-79	3267F/68-76-80	3343F/71-78-82
12	3676	2999F/57-67-74	3205F/66-74-79	3277F/69-76-81	3354F/71-78-82
10	3677	3008F/58-67-74	3215F/66-74-79	3288F/69-76-81	3365F/72-79-83
8	3677	3017F/58-68-74	3225F/67-74-79	3299F/69-77-81	3376F/72-79-83
6	3678	3026F/58-68-74	3235F/67-75-80	3310F/70-77-81	3387F/72-79-83
4	3678	3035F/59-68-75	3245F/67-75-80	3320F/70-77-82	3399F/73-80-83
2	3679	3044F/59-69-75	3255F/68-75-80	3331F/70-78-82	3410F/73-80-84
0	3679	3053F/59-69-75	3266F/68-76-80	3342F/71-78-82	3431F/73-80-84
-2	3679	3063F/60-69-75	3276F/68-76-81	3354F/71-78-82	3452F/73-80-84
-4	3680	3072F/60-69-76	3287F/69-76-81	3365F/71-79-83	3475F/74-80-84
-6	3680	3082F/60-70-76	3298F/69-77-81	3376F/72-79-83	3492F/74-80-84
-8	3680	3091F/61-70-76	3309F/69-77-81	3388F/72-79-83	3504F/74-81-84
-10	3680	3101F/61-70-76	3320F/70-77-82	3399F/73-80-83	3515F/75-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2887 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A8) NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32R(A9) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2693F/58-61-63	2867F/60-62-64	2927F/61-62-64	2988F/61-62-64
			2773**68-71-72	2796**71-75-75	2818**74-78-79
58A	2760	2729F/59-62-64	2905F/62-63-65	2965F/62-63-65	3027F/63-63-65
			2822**68-72-73	2846**71-75-76	2868**75-79-79
56A	2827	2770F/59-63-66	2948F/63-65-67	3009F/63-65-67	3072F/64-65-67
			2879**68-72-73	2903**71-76-76	2926**75-79-80
54	2896	2812F/60-64-67	2992F/64-67-69	3055F/65-67-69	3118F/65-67-69
			2938**68-73-74	2963**72-76-77	2987**75-80-80
52	2974	2858F/60-66-68	3040F/66-70-72	3104F/66-70-72	3169F/67-70-72
			3003**68-73-75	3030**72-77-78	3056**75-80-81
50	3051	2903F/61-67-70	3087F/67-72-74	3152F/68-72-74	3218F/68-72-74
			3068**69-74-75	3095**72-77-79	3121**75-81-82
48	3130	2947F/61-68-71	3135F/69-74-76	3200F/69-74-76	3266F/70-74-76
			3132**69-74-76	3160**72-78-79	3188**76-81-82
46	3207	2989F/61-69-72	3179F/69-75-77	3245F/71-76-78	3314F/71-76-78
				3224**72-78-80	3253**76-82-83
44	3283	3031F/62-70-74	3223F/69-76-79	3291F/72-78-80	3362F/73-78-80
				3287**72-78-80	3317**76-82-83
42	3357	3072F/62-71-75	3267F/70-77-80	3337F/72-79-81	3409F/74-80-82
					3380**76-82-84
40	3433	3112F/62-72-76	3311F/70-78-81	3382F/73-80-83	3491F/75-81-83
					3453**75-83-84
38	3506	3149F/63-73-77	3352F/71-79-82	3436F/73-81-83	3532F/75-82-84
					3518**75-83-85
36	3574	3188F/63-74-78	3394F/71-80-83	3503F/73-81-84	3575F/75-83-85
34	3639	3222F/63-74-79	3450F/71-80-84	3540F/73-82-85	3613F/76-84-87
32	3667	3241F/63-75-80	3489F/71-80-84	3562F/73-83-85	3635F/76-85-87
30	3668	3250F/64-75-80	3499F/71-81-84	3572F/74-83-86	3645F/77-85-87
28	3669	3259F/64-76-80	3509F/71-81-84	3582F/74-83-86	3656F/77-85-88
26	3670	3269F/64-76-80	3520F/72-81-84	3593F/74-83-86	3667F/77-86-88
24	3671	3278F/65-76-81	3530F/72-82-85	3603F/75-84-86	3678F/78-86-88
					3674**78-86-88
22	3671	3288F/65-76-81	3540F/72-82-85	3614F/75-84-87	3689F/78-86-88
					3680**78-87-89
20	3672	3298F/65-77-81	3551F/73-82-85	3625F/75-84-87	3700F/78-86-88
					3685**79-87-89
18	3673	3308F/66-77-81	3562F/73-82-85	3636F/76-85-87	3712F/78-86-88
					3691**79-88-90
16	3674	3318F/66-77-82	3572F/73-83-86	3647F/76-85-87	3723F/78-86-88
					3697**80-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3634 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A9) NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R(A9) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

14	3675	3328F/66-78-82	3583F/74-83-86	3658F/77-85-88	3734F/78-86-88
					3702**80-89-91
12	3676	3338F/67-78-82	3594F/74-83-86	3669F/77-86-88	3746F/78-86-88
					3708**81-89-91
10	3677	3349F/67-78-82	3605F/74-84-86	3680F/77-86-88	3758F/78-86-88
				3679**77-86-88	3714**81-90-92
8	3677	3359F/67-78-83	3616F/75-84-87	3692F/78-86-88	3770F/79-86-88
				3684**78-87-89	3720**82-90-92
6	3678	3369F/68-79-83	3627F/75-84-87	3703F/78-86-88	3782F/79-86-88
				3690**78-87-89	3726**82-91-93
4	3678	3380F/68-79-83	3638F/76-85-87	3715F/78-86-88	3787F/79-86-88
				3696**79-88-90	3732**83-92-93
2	3679	3391F/68-79-83	3649F/76-85-87	3727F/78-86-88	3787F/79-86-88
				3701**79-88-90	3738**83-92-94
0	3679	3401F/69-80-84	3661F/76-85-88	3738F/78-86-88	3787F/79-86-88
				3707**80-89-91	3743**84-93-94
-2	3679	3413F/69-80-84	3672F/77-86-88	3750F/78-86-88	3787F/79-86-88
				3713**80-89-91	3749**84-93-95
-4	3680	3432F/69-80-84	3683F/77-86-88	3762F/78-86-88	3787F/79-86-88
			3682**77-86-88	3718**81-90-92	3754**85-94-95
-6	3680	3452F/69-80-84	3695F/77-86-88	3774F/78-86-88	3787F/79-86-88
			3687**78-87-89	3724**82-91-92	3760**85-95-96
-8	3680	3472F/69-80-84	3707F/77-86-88	3786F/78-86-88	3787F/79-86-88
			3693**78-87-89	3730**82-91-93	3765**86-95-96
-10	3680	3490F/69-80-84	3719F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3698**79-88-90	3736**83-92-93	3771**87-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3634 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A9) NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32RA10 WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2800F/59-62-64	2976F/60-62-64	3037F/61-62-64	3096F/61-62-64
		2746**63-68-69	2814**73-78-78	2819**74-79-79	2819**75-79-79
58A	2760	2837F/60-63-65	3014F/62-63-65	3076F/62-63-65	3139F/63-63-65
		2794**63-68-69	2864**73-78-79	2876**75-80-80	2876**76-80-80
56A	2827	2879F/61-65-67	3059F/63-65-67	3121F/63-65-67	3185F/64-65-67
		2850**63-68-70	2922**73-79-79	2943**77-82-82	2943**77-82-82
54	2896	2922F/62-67-69	3104F/64-67-69	3167F/65-67-69	3232F/65-67-69
		2908**63-69-71	2983**73-79-80	3005**77-83-83	3015**79-85-85
52	2974	2969F/63-69-71	3155F/66-70-72	3219F/66-70-72	3284F/67-70-72
			3051**73-80-80	3075**77-83-84	3098**80-87-87
50	3051	3016F/64-71-73	3204F/67-72-74	3268F/68-72-74	3337F/68-72-74
			3116**74-80-81	3142**77-84-84	3166**81-87-87
48	3130	3062F/64-72-74	3252F/69-74-76	3320F/69-74-76	3390F/70-74-76
			3183**74-80-82	3209**77-84-85	3234**81-88-88
46	3207	3105F/65-73-75	3299F/70-76-78	3369F/71-76-78	3466F/71-76-78
			3247**74-81-82	3274**77-84-85	3302**81-88-88
44	3283	3148F/65-74-77	3346F/71-78-80	3423F/72-78-80	3524F/73-78-80
			3311**74-81-83	3341**77-85-86	3370**81-88-89
42	3357	3191F/65-75-78	3393F/72-80-82	3500F/73-80-82	3571F/74-80-82
			3374**74-82-83	3404**77-85-87	3444**80-88-89
40	3433	3232F/66-76-79	3462F/73-81-83	3545F/74-81-83	3617F/75-81-83
			3443**73-82-84	3487**77-85-87	3517**80-89-90
38	3506	3270F/66-77-80	3515F/73-82-84	3586F/74-82-84	3659F/75-82-84
			3511**73-82-84	3543**77-86-87	3575**80-89-90
36	3574	3312F/66-78-81	3558F/73-83-85	3629F/75-83-85	3703F/76-83-85
				3600**77-86-88	3633**80-90-91
34	3639	3344B/66-78-82	3596F/74-84-86	3668F/76-85-87	3742F/77-85-87
				3653**77-86-88	3687**80-90-91
32	3667	3362B/66-79-83	3617F/74-84-87	3690F/76-86-88	3765F/77-86-88
				3678**77-87-89	3713**81-90-92
30	3668	3372B/66-79-83	3628F/74-85-87	3701F/77-86-88	3776F/77-86-88
				3684**77-87-89	3718**81-91-92
28	3669	3382B/66-79-83	3638F/75-85-87	3712F/77-86-88	3787F/78-86-88
				3689**78-88-90	3724**82-91-93
26	3670	3393B/67-79-83	3649F/75-85-87	3723F/77-86-88	3787F/78-86-88
				3695**78-88-90	3729**82-92-93
24	3671	3403B/67-80-84	3659F/75-85-88	3734F/77-86-88	3787F/78-86-88
				3700**79-89-91	3735**83-93-94
22	3671	3415B/67-80-84	3670F/76-86-88	3745F/77-86-88	3787F/78-86-88
				3706**79-89-91	3740**83-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3954 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32RA10 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32RA10 WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3434B/68-80-84	3681F/76-86-88	3756F/77-86-88	3787F/78-86-88
			3677**76-86-88	3711**80-90-92	3746**84-94-95
18	3673	3452B/68-80-84	3692F/76-86-88	3767F/77-86-88	3787F/78-86-88
			3682**77-87-89	3717**80-90-92	3751**84-94-95
16	3674	3471B/68-80-84	3703F/76-86-88	3779F/77-86-88	3787F/78-86-88
			3688**77-87-89	3723**81-91-92	3757**85-95-96
14	3675	3489B/68-80-84	3714F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3693**78-88-90	3729**81-92-93	3762**85-95-96
12	3676	3500B/68-81-84	3725F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3699**78-88-90	3735**82-92-93	3768**86-96-97
10	3677	3511B/69-81-84	3737F/77-86-88	3787F/78-86-88	3787F/78-86-88
			3705**79-89-91	3740**82-93-94	3774**86-96-97
8	3677	3521B/69-81-84	3748F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3711**79-89-91	3746**83-93-94	3780**87-97-98
6	3678	3532B/69-82-85	3760F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3717**80-90-92	3752**83-94-95	3786**87-98-98
4	3678	3543B/70-82-85	3771F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3722**80-91-92	3757**84-94-95	3787**88-98-98
2	3679	3554B/70-82-85	3783F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3728**81-91-93	3763**85-95-96	3787**88-98-98
0	3679	3566B/71-83-85	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3734**81-92-93	3768**85-96-96	3787**88-98-98
-2	3679	3577B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3739**82-92-94	3774**86-96-97	3787**88-98-98
-4	3680	3588B/71-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3745**82-93-94	3779**86-97-98	3787**88-98-98
-6	3680	3599B/72-84-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3750**83-93-95	3785**87-97-98	3787**88-98-98
-8	3680	3611B/72-84-87	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3756**83-94-95	3787**87-98-98	3787**88-98-98
-10	3680	3623B/73-84-87	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3761**84-95-96	3787**87-98-98	3787**88-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3954 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
32RA10 NONEENG-OUT PROCEDURE:
NONE

ELEVATION 70 FT

RUNWAY 33

WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2702*/60-62-64	2787*/60-62-64	2818*/61-62-64	2846*/61-62-64
		2709**62-62-64	2791**71-74-75	2815**74-78-78	2819**75-79-79
58A	2760	2759*/63-63-65	2837*/62-63-65	2868*/62-63-65	2898*/63-63-65
			2843**72-75-75	2867**75-79-79	2876**76-80-80
56A	2827	2815*/64-65-67	2894*/63-65-67	2926*/64-65-67	2957*/64-65-67
			2903**73-76-76	2927**76-80-80	2943**78-82-82
54	2896	2866*/64-66-69	2953*/64-67-69	2985*/65-67-69	3018*/66-67-69
			2964**74-77-77	2990**77-80-81	3014**81-84-84
52	2974	2920*/65-68-70	3018*/66-70-72	3052*/67-70-72	3086*/67-70-72
			3032**74-77-78	3060**77-81-81	3085**81-85-85
50	3051	2972*/65-69-72	3082*/67-72-74	3117*/68-72-74	3151*/69-72-74
			3096**74-77-79	3125**77-81-82	3152**81-85-85
48	3130	3024*/65-70-73	3146*/69-74-76	3182*/70-74-76	3218*/70-74-76
			3162**74-78-79	3191**78-82-83	3220**81-85-86
46	3207	3072*/66-72-75	3207*/70-76-78	3244*/71-76-78	3282*/72-76-78
			3225**74-78-80	3256**78-82-83	3286**81-86-87
44	3283	3119*/66-73-76	3283*/73-78-80	3307*/72-78-80	3347*/73-78-80
			3287**74-78-80	3321**78-82-84	3353**81-86-87
42	3357	3166*/66-74-77	3342*/74-79-82	3368*/73-80-82	3409*/74-80-82
				3383**78-83-84	3418**81-86-88
40	3433	3210*/66-75-79	3392*/75-80-83	3434*/74-81-83	3501*/75-81-83
				3457**77-83-85	3499**81-87-88
38	3506	3252*/66-76-80	3457*/74-81-83	3506*/74-82-84	3545*/75-82-84
				3520**77-83-85	3556**81-87-88
36	3574	3295*/67-77-81	3516*/74-82-84	3574*/77-83-85	3601*/76-83-85
				3577**77-84-86	3613**81-87-89
34	3639	3334B/67-78-82	3558*/75-83-85	3621*/78-84-87	3653*/77-85-87
					3666**81-88-90
32	3667	3353B/66-78-82	3581*/75-83-86	3644*/78-85-87	3678*/78-86-88
					3691**81-88-90
30	3668	3362B/67-79-83	3589*/75-83-86	3653*/78-85-88	3684*/78-86-88
					3697**82-89-91
28	3669	3371B/67-79-83	3598*/76-84-86	3662*/79-86-88	3690*/78-86-88
					3702**82-89-91
26	3670	3380B/68-79-83	3607*/76-84-86	3670*/79-86-88	3696*/78-86-88
					3708**83-90-91
24	3671	3389B/68-79-83	3615*/76-84-87	3671*/79-86-88	3702*/78-86-88
				3676**80-86-88	3714**83-90-92
22	3671	3398B/68-80-83	3624*/77-84-87	3671*/78-86-88	3708*/78-86-88
				3682**80-87-89	3720**84-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33

WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3407B/69-80-84	3633*/77-85-87	3672*/78-86-88	3714*/78-86-88
				3687**81-87-89	3725**84-91-93
18	3673	3420B/69-80-84	3642*/78-85-87	3676*/77-86-88	3721*/78-86-88
				3693**81-88-90	3731**85-92-93
16	3674	3435B/69-80-84	3651*/78-85-88	3682*/78-86-88	3727*/78-86-88
				3698**82-88-90	3737**85-92-94
14	3675	3450B/70-80-84	3660*/78-85-88	3688*/78-86-88	3733*/78-86-88
				3704**82-89-91	3742**86-93-94
12	3676	3466B/70-80-84	3669*/79-86-88	3695*/78-86-88	3739*/79-86-88
				3710**83-90-91	3748**86-94-95
10	3677	3481B/70-80-84	3677*/79-86-88	3701*/78-86-88	3745*/79-86-88
				3716**83-90-92	3754**87-94-95
8	3677	3493B/70-80-84	3677*/79-86-88	3707*/78-86-88	3752*/79-86-88
			3683**80-87-89	3722**84-91-92	3760**87-95-96
6	3678	3502B/71-81-84	3678*/78-86-88	3713*/78-86-88	3758*/79-86-88
			3689**80-87-89	3728**84-91-93	3766**88-95-96
4	3678	3511B/71-81-84	3678*/78-86-88	3719*/78-86-88	3764*/79-86-88
			3695**81-88-90	3734**85-92-93	3771**88-96-97
2	3679	3520*/72-81-84	3680*/77-86-88	3725*/78-86-88	3770*/79-86-88
			3700**81-88-90	3740**85-92-94	3777**89-97-97
0	3679	3529*/72-81-85	3686*/77-86-88	3731*/78-86-88	3776*/79-86-88
			3706**82-89-91	3745**86-93-94	3783**90-97-98
-2	3679	3537*/72-82-85	3692*/78-86-88	3737*/78-86-88	3781*/79-86-88
			3712**82-89-91	3751**86-94-95	3787**90-98-98
-4	3680	3546*/73-82-85	3698*/78-86-88	3743*/79-86-88	3787F/79-86-88
			3717**83-90-92	3756**87-94-95	3787**89-98-98
-6	3680	3555*/73-82-85	3704*/78-86-88	3749*/79-86-88	3787F/79-86-88
			3723**84-91-92	3762**87-95-96	3787**89-98-98
-8	3680	3564*/74-83-85	3710*/78-86-88	3755*/79-86-88	3787F/80-86-88
			3729**84-91-93	3768**88-95-96	3787**89-98-98
-10	3680	3573*/74-83-86	3716*/78-86-88	3760*/79-86-88	3787F/80-86-88
			3735**85-92-93	3773**89-96-97	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

33 34 442 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y6) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	1969F/27-34-42	2136F/37-41-47	2195F/40-43-49	2255F/43-45-51
58A	2760	1998F/28-35-43	2167F/38-42-48	2227F/41-44-50	2288F/44-46-52
56A	2827	2031F/29-36-44	2203F/38-43-49	2263F/41-45-51	2325F/44-47-53
54	2896	2065F/30-37-45	2240F/39-44-51	2301F/42-46-53	2363F/45-48-54
52	2974	2103F/30-38-47	2281F/40-45-52	2343F/43-47-54	2406F/46-50-56
50	3051	2141F/31-39-48	2321F/41-46-54	2384F/44-48-55	2448F/47-51-57
48	3130	2178F/32-40-49	2361F/42-47-55	2425F/45-49-57	2490F/48-52-59
46	3207	2213F/33-41-51	2398F/42-48-56	2463F/46-51-58	2529F/49-53-60
44	3283	2248F/33-42-52	2436F/43-49-57	2501F/46-52-59	2568F/50-54-61
42	3357	2284F/34-43-53	2474F/44-50-59	2540F/47-53-61	2607F/50-55-62
40	3433	2317F/35-44-54	2510F/45-51-60	2577F/48-54-62	2645F/51-56-64
38	3506	2349F/35-45-55	2544F/45-52-61	2611F/49-54-63	2680F/52-57-65
36	3574	2382F/36-46-57	2579F/46-53-62	2647F/49-55-64	2717F/53-58-66
34	3639	2410F/36-46-57	2609F/47-54-63	2679F/50-56-65	2749F/53-59-67
32	3667	2426F/37-47-58	2627F/47-54-64	2696F/50-57-66	2766F/54-59-67
30	3668	2434F/37-47-58	2635F/47-54-64	2705F/51-57-66	2774F/54-59-68
28	3669	2441F/38-47-58	2644F/48-55-64	2714F/51-57-66	2782F/54-60-68
26	3670	2449F/38-48-59	2652F/48-55-64	2723F/52-58-66	2791F/55-60-68
24	3671	2457F/38-48-59	2661F/49-55-65	2731F/52-58-67	2799F/55-60-68
22	3671	2464F/39-48-59	2669F/49-56-65	2740F/52-58-67	2808F/55-61-69
20	3672	2472F/39-48-59	2678F/49-56-65	2749F/53-59-67	2817F/55-61-69
18	3673	2480F/39-49-60	2687F/50-56-65	2758F/53-59-67	2825F/56-61-69
16	3674	2488F/40-49-60	2696F/50-57-66	2766F/53-59-67	2834F/56-61-69
14	3675	2496F/40-49-60	2705F/51-57-66	2775F/54-59-68	2843F/56-62-70
12	3676	2504F/40-50-60	2714F/51-57-66	2783F/54-60-68	2852F/57-62-70
10	3677	2512F/41-50-60	2723F/51-58-66	2792F/54-60-68	2861F/57-62-70
8	3677	2521F/41-50-61	2732F/52-58-67	2801F/55-60-68	2870F/57-63-70
6	3678	2529F/42-51-61	2741F/52-58-67	2810F/55-61-69	2880F/58-63-71
4	3678	2537F/42-51-61	2750F/52-59-67	2819F/55-61-69	2889F/58-63-71
2	3679	2546F/42-51-61	2759F/53-59-67	2828F/56-61-69	2898F/58-64-71
0	3679	2554F/43-51-62	2767F/53-59-68	2837F/56-62-69	2907F/59-64-71
-2	3679	2562F/43-52-62	2776F/53-59-68	2846F/56-62-70	2917F/59-64-71
-4	3680	2571F/44-52-62	2785F/54-60-68	2855F/57-62-70	2926F/59-65-72
-6	3680	2580F/44-52-62	2794F/54-60-68	2864F/57-62-70	2936F/60-65-72
-8	3680	2588F/44-53-63	2803F/54-60-68	2873F/57-63-70	2946F/60-65-72
-10	3680	2597F/45-53-63	2812F/55-61-69	2883F/58-63-71	2955F/61-66-72

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2050 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y6)	34	442	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 33(Y7) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2203F/39-43-49	2377F/47-50-54	2437F/50-52-56	2499F/53-54-58
58A	2760	2236F/39-44-50	2412F/48-51-55	2473F/51-53-57	2535F/54-56-59
56A	2827	2273F/40-45-52	2452F/49-52-57	2514F/52-54-59	2577F/55-57-60
54	2896	2312F/41-47-53	2493F/50-53-58	2556F/53-56-60	2620F/56-58-62
52	2974	2355F/42-48-54	2539F/51-55-60	2603F/54-57-61	2668F/57-59-63
50	3051	2398F/43-49-56	2584F/52-56-61	2648F/55-58-63	2714F/58-60-65
48	3130	2440F/44-50-57	2629F/53-57-63	2694F/56-59-64	2759F/59-61-66
46	3207	2479F/44-51-58	2671F/54-58-64	2737F/57-60-66	2800F/59-62-67
44	3283	2518F/45-52-60	2712F/54-59-65	2776F/57-61-67	2840F/60-64-69
42	3357	2558F/46-53-61	2752F/55-60-66	2816F/58-62-68	2880F/60-65-70
40	3433	2596F/47-54-62	2789F/56-61-68	2853F/58-63-69	2918F/61-65-71
38	3506	2631F/48-55-63	2822F/56-62-69	2887F/59-64-70	2953F/61-66-72
36	3574	2669F/48-56-65	2857F/56-63-70	2923F/59-65-71	2990F/62-67-73
34	3639	2698F/49-57-66	2888F/57-63-71	2954F/59-66-72	3022F/62-68-74
32	3667	2714F/49-57-66	2905F/57-64-71	2972F/60-66-73	3041F/62-68-75
30	3668	2722F/49-58-66	2914F/57-64-71	2981F/60-66-73	3050F/63-69-75
28	3669	2729F/49-58-66	2923F/58-64-72	2990F/60-67-73	3059F/63-69-75
26	3670	2737F/50-58-67	2931F/58-65-72	2999F/61-67-74	3068F/63-69-75
24	3671	2745F/50-58-67	2940F/58-65-72	3008F/61-67-74	3078F/64-70-76
22	3671	2753F/50-59-67	2949F/58-65-72	3017F/61-68-74	3087F/64-70-76
20	3672	2761F/51-59-67	2958F/59-66-73	3026F/62-68-74	3096F/64-70-76
18	3673	2769F/51-59-68	2966F/59-66-73	3036F/62-68-75	3106F/65-71-76
16	3674	2777F/51-59-68	2975F/59-66-73	3045F/62-69-75	3115F/65-71-77
14	3675	2785F/51-60-68	2985F/60-67-73	3054F/63-69-75	3125F/65-71-77
12	3676	2793F/52-60-68	2994F/60-67-73	3064F/63-69-75	3135F/66-72-77
10	3677	2802F/52-60-68	3003F/60-67-74	3074F/63-70-76	3145F/66-72-77
8	3677	2810F/52-61-69	3013F/61-67-74	3083F/64-70-76	3155F/66-72-78
6	3678	2819F/53-61-69	3022F/61-68-74	3093F/64-70-76	3165F/67-72-78
4	3678	2827F/53-61-69	3032F/61-68-74	3103F/64-70-76	3176F/67-73-78
2	3679	2836F/53-61-69	3041F/62-68-75	3112F/65-71-77	3186F/67-73-78
0	3679	2844F/54-62-70	3051F/62-69-75	3122F/65-71-77	3196F/68-73-79
-2	3679	2853F/54-62-70	3060F/62-69-75	3132F/65-71-77	3206F/68-74-79
-4	3680	2862F/54-62-70	3070F/63-69-75	3142F/66-72-77	3217F/69-74-79
-6	3680	2870F/55-63-70	3080F/63-70-76	3153F/66-72-78	3227F/69-74-79
-8	3680	2879F/55-63-70	3090F/64-70-76	3163F/66-72-78	3238F/69-75-80
-10	3680	2888F/55-63-71	3099F/64-70-76	3173F/67-73-78	3249F/70-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y7)	34	442	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 33(Y8) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2658*/59-60-62	2752*/60-62-64	2783*/61-62-64	2813*/61-62-64
			2756**67-69-70	2783**70-73-73	2808**74-77-77
58A	2760	2706*/61-62-64	2800*/62-63-65	2832*/62-63-65	2864*/63-63-65
			2807**68-70-71	2835**71-74-74	2859**75-78-78
56A	2827	2756*/61-63-65	2856*/63-65-67	2889*/64-65-67	2921*/64-65-67
			2867**69-71-72	2894**72-75-75	2919**76-78-79
54	2896	2803*/62-64-67	2914*/64-67-69	2947*/65-67-69	2981*/66-67-69
			2929**70-72-73	2957**73-75-76	2984**77-79-80
52	2974	2855*/62-66-68	2978*/66-70-72	3013*/67-70-72	3047*/67-70-72
			2995**70-72-74	3025**74-76-77	3053**77-80-81
50	3051	2905*/62-67-70	3051*/69-72-74	3076*/68-72-74	3111*/69-72-74
			3059**71-73-74	3089**74-76-78	3118**77-80-81
48	3130	2955*/63-68-71	3118*/71-73-76	3139*/70-74-76	3176*/70-74-76
				3155**74-77-79	3185**77-81-82
46	3207	3001*/63-69-73	3169*/71-75-77	3207*/72-76-78	3239*/72-76-78
				3218**74-77-79	3249**77-81-82
44	3283	3047*/63-70-74	3219*/71-76-78	3276*/74-78-80	3301*/73-78-80
					3313**78-81-83
42	3357	3092*/63-72-75	3267*/72-77-80	3328*/74-79-81	3361*/74-80-82
					3376**78-82-84
40	3433	3136*/64-73-77	3316*/72-78-81	3379*/75-80-83	3433*/76-81-83
					3447**77-82-84
38	3506	3176*/64-74-78	3361*/72-79-82	3435*/75-81-83	3506*/76-82-84
					3513**77-82-84
36	3574	3218*/64-75-79	3408*/72-80-83	3503*/75-81-84	3566*/78-83-85
34	3639	3253F/64-75-80	3477*/72-80-83	3545*/75-82-85	3609*/78-84-86
32	3667	3273F/65-76-81	3503*/72-81-84	3567*/75-83-85	3632*/78-85-87
30	3668	3282F/65-76-81	3511*/73-81-84	3576*/76-83-86	3641*/79-85-87
28	3669	3292F/65-77-81	3520*/73-81-84	3585*/76-83-86	3650*/79-85-87
26	3670	3301*/65-77-81	3529*/73-82-85	3594*/76-83-86	3659*/79-85-88
24	3671	3309*/66-77-81	3538*/74-82-85	3603*/77-84-86	3668*/80-86-88
22	3671	3318*/66-77-82	3547*/74-82-85	3611*/77-84-87	3671*/80-86-88
					3675**80-86-88
20	3672	3327*/66-78-82	3555*/74-82-85	3620*/77-84-87	3672*/79-86-88
					3680**81-87-89
18	3673	3336*/67-78-82	3564*/75-83-85	3629*/78-85-87	3673*/79-86-88
					3686**81-87-89
16	3674	3345*/67-78-82	3573*/75-83-86	3638*/78-85-87	3676*/78-86-88
					3692**82-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3728 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y8)	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y8) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

14	3675	3354*/68-78-82	3582*/76-83-86	3648*/79-85-87	3683*/78-86-88 3698**82-88-90
12	3676	3363*/68-79-83	3591*/76-83-86	3657*/79-85-88	3689*/79-86-88 3704**83-89-91
10	3677	3372*/68-79-83	3600*/76-84-86	3666*/80-86-88	3695*/79-86-88 3710**83-89-91
8	3677	3381*/69-79-83	3610*/77-84-87	3675*/80-86-88	3702*/79-86-88 3716**84-90-92
6	3678	3390*/69-79-83	3619*/77-84-87	3678*/80-86-88 3682**80-86-89	3708*/79-86-88 3722**84-91-92
4	3678	3399*/69-80-83	3628*/78-84-87	3678*/79-86-88 3688**81-87-89	3714*/79-86-88 3727**85-91-93
2	3679	3408*/70-80-84	3637*/78-85-87	3679*/79-86-88 3693**82-87-89	3720*/79-86-88 3733**85-92-93
0	3679	3422*/70-80-84	3646*/79-85-87	3681*/78-86-88 3699**82-88-90	3726*/79-86-88 3739**86-92-94
-2	3679	3437*/70-80-84	3655*/79-85-88	3687*/78-86-88 3705**83-89-90	3732*/79-86-88 3744**86-93-94
-4	3680	3452*/70-80-84	3664*/80-86-88	3693*/79-86-88 3710**83-89-91	3738*/79-86-88 3750**87-93-95
-6	3680	3467*/71-80-84	3673*/80-86-88	3699*/79-86-88 3716**84-90-92	3744*/79-86-88 3756**88-94-95
-8	3680	3483*/71-80-84	3680*/80-86-88 3681**80-86-88	3705*/79-86-88 3722**84-90-92	3750*/80-86-88 3761**88-95-96
-10	3680	3493*/71-80-84	3680*/80-86-88 3687**81-87-89	3710*/79-86-88 3728**85-91-93	3756*/80-86-88 3767**89-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3728 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y8)	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y9) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2702	2686*/61-61-63	2771*/60-62-64	2801*/61-62-64	2831*/61-62-64
			2775**69-72-72	2800**72-76-76	2819**75-79-79
58A	2760	2734*/62-62-65	2820*/62-63-65	2851*/62-63-65	2882*/63-63-65
			2826**70-72-73	2852**73-76-77	2875**77-80-80
56A	2827	2788*/63-64-66	2876*/63-65-67	2908*/64-65-67	2940*/64-65-67
			2885**71-73-74	2912**74-77-78	2936**78-81-81
54	2896	2836*/63-65-68	2934*/64-67-69	2967*/65-67-69	3000*/66-67-69
			2948**72-74-75	2976**75-78-79	3000**79-82-82
52	2974	2889*/63-67-69	2999*/66-70-72	3033*/67-70-72	3067*/67-70-72
			3014**72-75-76	3043**76-79-79	3070**79-82-83
50	3051	2941*/64-68-71	3062*/67-72-74	3097*/68-72-74	3132*/69-72-74
			3079**72-75-77	3108**76-79-80	3137**79-83-83
48	3130	2991*/64-69-72	3130*/70-74-76	3162*/70-74-76	3198*/70-74-76
			3144**72-75-77	3174**76-79-81	3203**79-83-84
46	3207	3038*/64-71-74	3205*/73-76-78	3224*/71-76-78	3261*/72-76-78
				3238**76-80-81	3268**79-84-85
44	3283	3085*/65-72-75	3256*/73-77-79	3285*/72-78-80	3325*/73-78-80
				3302**76-80-82	3334**79-84-85
42	3357	3131*/65-73-76	3306*/73-78-81	3357*/75-80-82	3386*/74-80-82
				3363**76-80-82	3397**79-84-86
40	3433	3175*/65-74-78	3356*/73-79-82	3423*/76-81-83	3471*/75-81-83
					3477**79-84-86
38	3506	3216*/65-75-79	3402*/74-80-83	3495*/76-81-83	3523*/75-82-84
					3536**79-85-86
36	3574	3258*/65-76-80	3476*/73-81-83	3542*/76-82-85	3578*/76-83-85
					3592**79-85-87
34	3639	3297*/66-77-81	3522*/73-81-84	3585*/76-83-86	3639*/78-85-87
					3645**79-86-88
32	3667	3318*/66-77-82	3544*/74-82-85	3608*/77-84-86	3667*/79-86-88
					3670**80-86-88
30	3668	3326*/66-78-82	3552*/74-82-85	3616*/77-84-87	3668*/79-86-88
					3676**80-86-89
28	3669	3335*/66-78-82	3561*/74-82-85	3625*/77-84-87	3669*/78-86-88
					3681**81-87-89
26	3670	3344*/67-78-82	3570*/75-83-86	3634*/78-85-87	3672*/78-86-88
					3687**81-88-89
24	3671	3353*/67-78-82	3578*/75-83-86	3643*/78-85-87	3678*/78-86-88
					3692**82-88-90
22	3671	3361*/67-79-83	3587*/76-83-86	3652*/79-85-88	3684*/78-86-88
					3698**82-89-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3848 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y9)	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y9) WMKK

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3672	3370*/68-79-83	3596*/76-84-86	3661*/79-85-88	3691*/78-86-88
					3704**83-89-91
18	3673	3379*/68-79-83	3605*/76-84-86	3670*/79-86-88	3697*/78-86-88
					3710**83-90-91
16	3674	3388*/69-79-83	3614*/77-84-87	3674*/79-86-88	3703*/78-86-88
				3677**80-86-88	3715**84-90-92
14	3675	3397*/69-80-83	3623*/77-84-87	3675*/79-86-88	3709*/78-86-88
				3683**80-87-89	3721**84-91-92
12	3676	3406*/69-80-84	3632*/78-85-87	3676*/78-86-88	3715*/79-86-88
				3689**81-87-89	3728**85-91-93
10	3677	3418*/70-80-84	3641*/78-85-87	3677*/78-86-88	3722*/79-86-88
				3694**81-88-90	3734**85-92-93
8	3677	3434*/70-80-84	3650*/78-85-87	3683*/78-86-88	3728*/79-86-88
				3700**82-88-90	3739**86-92-94
6	3678	3449*/70-80-84	3659*/79-85-88	3689*/78-86-88	3734*/79-86-88
				3706**82-89-91	3745**86-93-94
4	3678	3463*/70-80-84	3668*/79-86-88	3695*/78-86-88	3740*/79-86-88
				3712**83-89-91	3751**87-94-95
2	3679	3479*/70-80-84	3677*/80-86-88	3701*/78-86-88	3746*/79-86-88
				3718**83-90-92	3756**87-94-95
0	3679	3491*/71-80-84	3679*/79-86-88	3707*/78-86-88	3752*/79-86-88
			3684**80-86-89	3724**84-91-92	3762**88-95-96
-2	3679	3499*/71-81-84	3679*/79-86-88	3713*/78-86-88	3758*/79-86-88
			3689**81-87-89	3729**85-91-93	3768**88-95-96
-4	3680	3508*/72-81-84	3680*/78-86-88	3719*/79-86-88	3764*/79-86-88
			3695**81-88-90	3735**85-92-93	3773**89-96-97
-6	3680	3517*/72-81-84	3680*/78-86-88	3725*/79-86-88	3770*/79-86-88
			3701**82-88-90	3741**86-92-94	3779**89-97-97
-8	3680	3526*/72-81-85	3686*/78-86-88	3731*/79-86-88	3776*/80-86-88
			3706**82-89-91	3746**86-93-94	3785**90-97-98
-10	3680	3535*/73-82-85	3692*/78-86-88	3737*/79-86-88	3781*/80-86-88
			3712**83-89-91	3752**87-94-95	3787**90-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3848 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y9)	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 01

ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2697	2596*/58-58-61	2676*/61-61-63	2700*/61-62-63	2724*/61-62-63
		2613**63-66-68	2705**70-73-74	2735**71-75-75	2765**73-77-77
58A	2755	2648*/60-60-62	2730*/62-62-65	2755*/63-63-65	2778*/63-63-65
		2663**64-67-69	2756**71-75-76	2786**72-76-76	2817**74-77-78
56A	2822	2709*/61-61-64	2792*/64-64-66	2818*/65-65-67	2840*/64-65-67
		2719**65-67-69	2814**71-74-75	2846**74-78-78	2877**76-79-80
54	2891	2769*/63-63-66	2855*/66-66-68	2882*/67-67-69	2903*/66-67-69
		2777**65-67-69	2875**73-76-77	2907**75-78-79	2940**78-81-81
52	2969	2837*/65-65-68	2926*/68-68-70	2954*/69-69-71	2974*/67-69-71
		2840**65-66-69	2946**74-77-78	2979**76-79-80	3012**79-82-82
50	3045	2901*/65-67-70	2995*/70-70-72	3024*/71-71-73	3045*/69-72-74
			3011**74-76-78	3047**77-80-81	3081**80-83-84
48	3125	2962*/65-68-72	3067*/72-72-74	3097*/73-73-75	3125*/73-74-76
			3078**74-76-78	3115**77-80-81	3152**81-83-84
46	3201	3018*/65-70-73	3135*/74-74-76	3166*/75-75-77	3197*/76-76-78
			3141**74-75-78	3180**77-79-81	3217**81-83-84
44	3277	3073*/65-71-75	3201*/74-75-78	3235*/76-76-79	3266*/77-77-80
				3242**77-79-81	3282**81-82-84
42	3351	3126*/65-73-76	3259*/74-77-80	3301*/78-78-81	3334*/79-79-81
				3302**77-79-82	3345**81-82-84
40	3426	3178*/65-74-78	3316*/74-78-81	3361*/78-80-82	3401*/81-81-83
					3406**81-82-84
38	3501	3226*/65-75-79	3370*/74-80-82	3420*/78-81-83	3480*/80-81-83
					3483**80-83-85
36	3569	3275*/65-76-80	3431*/74-80-83	3494*/77-81-84	3539*/81-82-85
34	3633	3321*/65-78-82	3496*/74-81-84	3544*/77-82-85	3591*/81-84-86
32	3665	3346*/65-78-82	3522*/74-81-84	3571*/77-83-86	3618*/81-84-87
30	3666	3352*/65-78-82	3528*/75-82-85	3576*/78-83-86	3623*/81-84-87
28	3666	3359*/66-78-83	3534*/75-82-85	3582*/78-83-86	3629*/82-85-87
26	3667	3365*/66-79-83	3540*/76-82-85	3588*/79-83-86	3634*/82-85-87
24	3668	3371*/67-79-83	3545*/76-82-85	3593*/79-83-86	3639*/83-85-87
22	3669	3377*/67-79-83	3551*/76-82-85	3599*/80-84-86	3645*/83-85-87
20	3670	3383*/68-79-83	3557*/77-82-85	3604*/80-84-86	3650*/84-85-87
					3651**84-87-89
18	3670	3389*/68-79-83	3562*/77-83-85	3609*/81-84-87	3655*/84-85-88
					3657**84-88-90
16	3671	3395*/68-80-83	3568*/78-83-86	3615*/81-84-87	3659*/85-85-88
					3663**85-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 500 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01	163	2378	0	184	4025	0	189	4712	0
	208	5625	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RUNWAY 01 BASED ON A 15 DEGREE BANKED CLIMBING RIGHT
 TURN, COMMENCED AT D8.9 PEK VOR/DME TO A MAG COURSE OF 126 DEGREES

ELEVATION 115 FT

RUNWAY 01

ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
14	3672	3401*/69-80-83	3573*/78-83-86	3620*/82-84-87	3664*/85-86-88 3668**85-89-91
12	3673	3408*/69-80-84	3579*/79-83-86	3626*/82-84-87	3667*/86-86-88 3675**86-89-91
10	3674	3415*/70-80-84	3585*/79-83-86	3631*/83-85-87 3632**83-86-89	3671*/86-86-88 3681**86-90-92
8	3674	3424*/70-80-84	3590*/80-83-86	3636*/83-85-87 3638**83-87-89	3674*/86-86-88 3687**87-90-92
6	3675	3433*/70-80-84	3595*/80-84-86	3641*/84-85-87 3644**84-88-90	3675*/85-86-88 3692**87-90-92
4	3676	3441*/71-80-84	3601*/81-84-86	3646*/85-85-87 3649**84-88-90	3676*/84-86-88 3698**88-91-92
2	3676	3450*/71-80-84	3606*/81-84-86	3649*/85-85-87 3655**85-89-91	3676*/84-86-88 3704**88-91-93
0	3676	3458*/72-80-84	3611*/82-84-87 3612**82-86-88	3652*/85-85-88 3661**85-89-91	3676*/83-86-88 3710**89-91-93
-2	3677	3466*/72-80-84	3616*/83-84-87 3617**83-87-89	3655*/85-85-88 3667**86-89-91	3677*/82-86-88 3715**90-92-93
-4	3677	3473*/73-80-84	3620*/83-84-87 3623**83-87-89	3658*/85-85-88 3672**87-90-91	3677*/82-86-88 3721**90-92-94
-6	3677	3481*/73-80-84	3625*/84-84-87 3629**84-88-90	3661*/85-85-88 3678**87-90-92	3677*/81-86-88 3726**91-94-95
-8	3677	3488*/73-80-84	3629*/84-85-87 3634**84-88-90	3664*/86-86-88 3683**88-90-92	3677*/81-86-88 3732**91-94-96
-10	3677	3493*/74-80-84	3632*/85-85-87 3640**85-88-90	3667*/86-86-88 3689**88-91-92	3677*/80-86-88 3738**92-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 500 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01	163	2378	0	184	4025	0	189	4712	0
	208	5625	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RUNWAY 01 BASED ON A 15 DEGREE BANKED CLIMBING RIGHT TURN, COMMENCED AT D8.9 PEK VOR/DME TO A MAG COURSE OF 126 DEGREES

ELEVATION 115 FT

RUNWAY 18L

ZBAA

*** FLAPS 05 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2697	2757*/59-62-63	2840*/60-62-63	2866*/61-62-63	2891*/61-62-63
		2738**61-67-68	2807**71-77-77	2814**74-79-79	2814**75-79-79
58A	2755	2807*/60-63-65	2892*/61-63-65	2919*/62-63-65	2946*/63-63-65
		2786**61-67-69	2856**71-78-78	2871**75-80-80	2871**76-80-80
56A	2822	2864*/61-65-67	2952*/63-65-67	2980*/63-65-67	3008*/64-65-67
		2842**61-68-69	2913**71-78-79	2935**75-82-82	2938**77-82-82
54	2891	2909F/62-67-69	3014*/64-67-69	3043*/65-67-69	3072*/65-67-69
		2899**61-68-70	2974**72-79-79	2996**75-82-82	3009**79-84-84
52	2969	2957F/62-69-71	3083*/66-69-71	3114*/66-69-71	3144*/67-69-71
			3042**72-79-80	3066**75-82-83	3089**79-86-86
50	3045	3003F/62-70-72	3151*/67-72-74	3183*/68-72-74	3214*/68-72-74
			3107**72-79-80	3133**75-83-84	3157**79-86-87
48	3125	3050F/62-71-74	3219*/69-74-76	3252*/69-74-76	3285*/70-74-76
			3174**72-80-81	3200**75-83-84	3225**79-87-87
46	3201	3094F/63-72-75	3284F/70-76-78	3320*/71-76-78	3356*/71-76-78
			3238**72-80-82	3265**75-84-85	3293**79-87-88
44	3277	3137F/63-73-76	3332F/71-78-80	3389*/72-78-80	3437*/73-78-80
			3302**72-81-82	3332**75-84-85	3360**79-88-88
42	3351	3179F/64-74-78	3380F/72-80-82	3483*/73-80-82	3520*/74-80-82
			3364**72-81-83	3394**75-85-86	3431**79-88-89
40	3426	3221F/64-75-79	3438F/72-81-83	3531F/74-81-83	3580*/75-81-83
			3430**72-81-83	3474**75-85-86	3508**78-88-89
38	3501	3259F/64-76-80	3503F/71-81-84	3573F/74-81-84	3629*/75-81-84
			3502**71-82-84	3534**75-85-87	3566**79-89-90
36	3569	3300F/64-77-81	3545F/72-82-85	3616F/75-83-85	3688*/76-83-85
				3591**75-86-87	3624**79-89-90
34	3633	3337F/64-78-82	3584F/72-83-86	3655F/75-85-87	3729F/77-85-87
				3644**75-86-88	3677**79-89-91
32	3665	3360F/65-79-83	3607F/72-84-86	3679F/75-86-88	3753F/77-86-88
				3672**75-86-88	3706**79-90-92
30	3666	3370F/65-79-83	3617F/73-84-87	3690F/76-86-88	3764F/77-86-88
				3677**76-87-89	3711**79-90-92
28	3666	3380F/65-79-83	3628F/73-85-87	3701F/76-86-88	3775F/77-86-88
				3682**76-87-89	3717**80-91-92
26	3667	3390F/66-79-83	3638F/73-85-87	3711F/77-86-88	3787F/78-86-88
				3688**77-88-90	3722**80-91-93
24	3668	3400F/66-80-83	3649F/74-85-87	3722F/77-86-88	3787F/78-86-88
				3693**77-88-90	3728**81-92-93
22	3669	3410F/66-80-84	3659F/74-85-88	3733F/77-86-88	3787F/78-86-88
				3699**78-89-91	3733**81-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18L	48	1417	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 18L

ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3670	3427F/66-80-84	3670F/74-86-88	3744F/77-86-88	3787F/78-86-88
				3704**78-89-91	3739**82-93-94
18	3670	3445F/66-80-84	3681F/75-86-88	3756F/77-86-88	3787F/78-86-88
			3675**75-86-88	3710**79-90-92	3744**82-94-95
16	3671	3464F/67-80-84	3692F/75-86-88	3767F/77-86-88	3787F/78-86-88
			3681**75-87-89	3716**79-90-92	3749**83-94-95
14	3672	3484F/67-80-84	3703F/76-86-88	3778F/77-86-88	3787F/78-86-88
			3686**76-87-89	3721**80-91-92	3755**83-95-96
12	3673	3495F/67-80-84	3714F/76-86-88	3787F/77-86-88	3787F/78-86-88
			3692**76-88-90	3728**80-92-93	3761**84-95-96
10	3674	3506F/67-81-84	3725F/77-86-88	3787F/77-86-88	3787F/78-86-88
			3698**77-88-90	3733**81-92-93	3767**84-96-97
8	3674	3516F/68-81-84	3737F/77-86-88	3787F/78-86-88	3787F/78-86-88
			3704**77-89-91	3739**81-93-94	3773**85-96-97
6	3675	3527F/68-81-85	3748F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3709**78-89-91	3744**82-93-94	3778**85-97-98
4	3676	3537F/68-82-85	3759F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3715**78-90-92	3750**82-94-95	3784**86-98-98
2	3676	3548F/69-82-85	3771F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3721**79-91-92	3755**83-94-95	3787**87-98-99
0	3676	3558F/69-82-85	3779F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3726**79-91-93	3761**83-95-96	3787**87-98-99
-2	3677	3569F/69-83-86	3784F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3732**80-92-93	3766**84-96-96	3787**88-98-99
-4	3677	3579F/70-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3737**80-92-94	3772**84-96-97	3787**88-98-99
-6	3677	3590F/70-83-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3743**81-93-94	3778**85-97-98	3787**88-98-99
-8	3677	3601F/71-84-86	3787F/77-86-88	3787F/78-86-88	3787F/79-86-88
			3748**81-93-95	3783**85-97-98	3787**89-98-99
-10	3677	3612F/71-84-87	3787F/78-86-88	3787F/78-86-88	3787F/79-86-88
			3754**82-94-95	3787**86-98-99	3787**89-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

18L	48	1417	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 18R ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2697	2536F/53-56-59	2667*/60-60-63	2697*/61-62-63	2725*/61-62-63
			2669**62-62-64	2703**64-66-67	2737**65-67-68
58A	2755	2574F/54-57-60	2718*/62-62-64	2751*/63-63-65	2777*/63-63-65
				2753**65-66-67	2788**67-68-70
56A	2822	2615F/55-58-61	2775*/63-64-66	2810*/65-65-67	2836*/64-65-67
				2812**66-66-68	2846**69-69-70
54	2891	2655F/56-59-63	2828*/63-65-67	2870*/66-66-69	2896*/65-67-69
					2907**69-69-71
52	2969	2699F/56-60-64	2878F/63-66-69	2931*/66-68-70	2969*/68-69-71
					2973**69-70-72
50	3045	2742F/57-61-65	2923F/64-67-70	2986F/66-70-72	3034*/69-71-73
48	3125	2785F/57-62-67	2968F/65-69-72	3032F/67-71-73	3094*/70-73-75
46	3201	2824F/57-63-68	3010F/65-70-73	3075F/68-72-75	3141F/70-74-76
44	3277	2863F/58-64-69	3052F/65-71-74	3117F/68-73-76	3185F/71-75-78
42	3351	2903F/58-65-70	3093F/66-72-75	3160F/68-74-77	3228F/71-76-79
40	3426	2941F/58-66-72	3134F/66-73-77	3201F/69-75-78	3269F/72-77-80
38	3501	2976F/59-67-73	3171F/67-73-78	3239F/69-76-79	3310F/72-78-81
36	3569	3013F/59-68-74	3210F/67-74-79	3278F/70-77-81	3352F/72-79-82
34	3633	3045F/59-69-75	3245F/67-75-80	3315F/70-77-81	3389F/73-80-83
32	3665	3064F/60-69-75	3266F/68-76-80	3338F/70-78-82	3414F/73-80-84
30	3666	3073F/60-70-76	3275F/68-76-81	3348F/71-78-82	3434F/73-80-84
28	3666	3081F/60-70-76	3285F/68-76-81	3359F/71-78-83	3454F/73-80-84
26	3667	3090F/60-70-76	3295F/69-77-81	3369F/71-79-83	3475F/73-80-84
24	3668	3099F/61-70-76	3305F/69-77-81	3380F/72-79-83	3492F/74-80-84
22	3669	3108F/61-71-76	3315F/69-77-82	3390F/72-79-83	3502F/74-81-84
20	3670	3117F/61-71-77	3326F/70-78-82	3401F/72-80-83	3513F/74-81-84
18	3670	3126F/62-71-77	3336F/70-78-82	3412F/73-80-84	3524F/75-81-84
16	3671	3135F/62-72-77	3347F/70-78-82	3432F/73-80-84	3534F/75-82-85
14	3672	3144F/62-72-77	3357F/71-78-83	3453F/73-80-84	3545F/75-82-85
12	3673	3154F/63-72-78	3368F/71-79-83	3474F/73-80-84	3557F/76-82-85
10	3674	3163F/63-72-78	3379F/71-79-83	3491F/73-80-84	3568F/76-83-86
8	3674	3172F/63-73-78	3390F/72-79-83	3502F/74-81-84	3579F/76-83-86
6	3675	3182F/64-73-78	3401F/72-80-83	3513F/74-81-84	3590F/77-83-86
4	3676	3192F/64-73-79	3413F/72-80-84	3524F/74-81-84	3601F/77-84-86
2	3676	3201F/64-74-79	3433F/72-80-84	3535F/75-82-85	3613F/78-84-87
0	3676	3211F/65-74-79	3454F/73-80-84	3547F/75-82-85	3624F/78-84-87
-2	3677	3221F/65-74-79	3475F/73-80-84	3558F/75-82-85	3636F/78-85-87
-4	3677	3231F/65-75-80	3492F/73-80-84	3569F/76-83-86	3644*/79-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18R	54	1101	0	69	1407	0	94	1606	0
	241	18018	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 18R ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3677	3241F/66-75-80	3503F/73-81-84	3581F/76-83-86	3652*/79-85-88

-8	3677	3251F/66-75-80	3514F/74-81-84	3592F/77-83-86	3659*/80-85-88

-10	3677	3261F/66-76-80	3526F/74-81-84	3604F/77-84-86	3666*/80-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

18R	54	1101	0	69	1407	0	94	1606	0

241	18018	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 19

ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2697	2697*/60-62-63	2761*/60-62-63	2783*/61-62-63	2804*/61-62-63
		2710**62-66-67	2795**71-75-76	2814**74-79-79	2814**75-79-79
58A	2755	2755*/62-63-65	2815*/61-63-65	2838*/62-63-65	2860*/63-63-65
		2758**62-66-68	2844**72-76-76	2866**75-79-79	2871**76-80-80
56A	2822	2812*/62-65-67	2878*/63-65-67	2901*/63-65-67	2924*/64-65-67
		2813**62-66-68	2901**72-76-77	2923**75-80-80	2938**77-82-82
54	2891	2869*/62-66-69	2942*/64-67-69	2966*/65-67-69	2989*/65-67-69
			2960**72-77-77	2984**75-80-81	3006**79-84-84
52	2969	2920F/63-68-70	3015*/66-69-71	3039*/66-69-71	3064*/67-69-71
			3027**72-77-78	3053**75-81-81	3076**79-84-84
50	3045	2966F/63-69-71	3086*/67-72-74	3111*/68-72-74	3136*/68-72-74
			3092**72-77-79	3118**76-81-82	3144**79-85-85
48	3125	3012F/64-70-73	3158*/69-74-76	3184*/69-74-76	3210*/70-74-76
			3158**72-78-79	3185**76-81-82	3211**79-85-86
46	3201	3054F/64-71-74	3228*/70-76-78	3255*/71-76-78	3282*/71-76-78
			3221**72-78-80	3249**76-82-83	3277**79-85-86
44	3277	3096F/64-72-75	3291F/71-78-80	3326*/72-78-80	3355*/73-78-80
			3283**72-79-81	3314**76-82-84	3344**79-86-87
42	3351	3138F/65-73-77	3337F/72-79-81	3394*/73-80-82	3430*/74-80-82
				3377**76-82-84	3407**79-86-87
40	3426	3178F/65-74-78	3382F/73-80-83	3480*/74-81-83	3510*/75-81-83
				3448**76-83-85	3490**79-86-87
38	3501	3216F/65-75-79	3435F/73-81-83	3530*/74-81-84	3567*/75-81-84
				3515**75-83-85	3547**79-86-88
36	3569	3256F/66-76-80	3502F/73-81-84	3573F/75-83-85	3629*/76-83-85
				3571**75-83-86	3604**79-87-89
34	3633	3291F/66-77-81	3539F/73-82-85	3611F/76-84-86	3679*/77-85-87
					3657**79-87-89
32	3665	3313F/66-77-82	3562F/73-83-85	3634F/76-85-87	3706*/77-86-88
					3685**79-88-90
30	3666	3323F/66-77-82	3572F/74-83-86	3645F/76-85-87	3713*/77-86-88
					3691**80-88-90
28	3666	3332F/67-78-82	3583F/74-83-86	3656F/77-85-88	3720*/78-86-88
					3696**80-89-91
26	3667	3342F/67-78-82	3593F/74-83-86	3666F/77-86-88	3727*/78-86-88
					3702**81-89-91
24	3668	3352F/67-78-82	3603F/75-84-86	3677F/77-86-88	3733*/78-86-88
				3673**78-86-88	3707**81-90-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET
19	11	277	0	114	2582	0
	154	3198	0	201	4428	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 19

ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3669	3362F/68-79-83	3614F/75-84-87	3688F/77-86-88	3736*/78-86-88
				3678**78-87-89	3713**82-90-92
20	3670	3372F/68-79-83	3625F/75-84-87	3699F/77-86-88	3740*/78-86-88
				3684**79-87-89	3719**82-91-92
18	3670	3382F/68-79-83	3635F/76-85-87	3707*/77-86-88	3743*/78-86-88
				3689**79-88-90	3724**83-91-93
16	3671	3393F/68-79-83	3646F/76-85-87	3714*/77-86-88	3747*/78-86-88
				3695**79-88-90	3730**83-92-93
14	3672	3403F/69-80-84	3657F/76-85-88	3718*/77-86-88	3750*/78-86-88
				3700**80-89-91	3736**84-93-94
12	3673	3416F/69-80-84	3668F/77-86-88	3722*/77-86-88	3754*/78-86-88
				3706**81-89-91	3741**84-93-94
10	3674	3435F/69-80-84	3679F/77-86-88	3726*/78-86-88	3758*/78-86-88
			3677**77-86-88	3712**81-90-92	3747**85-94-95
8	3674	3454F/69-80-84	3691F/77-86-88	3729*/78-86-88	3761*/79-86-88
			3682**78-87-89	3718**82-90-92	3753**85-94-95
6	3675	3473F/69-80-84	3700*/77-86-88	3733*/78-86-88	3764*/79-86-88
			3688**78-87-89	3724**82-91-92	3759**86-95-96
4	3676	3490F/70-80-84	3703*/77-86-88	3736*/78-86-88	3768*/79-86-88
			3694**79-88-90	3730**83-92-93	3764**86-95-96
2	3676	3501F/70-81-84	3706*/77-86-88	3739*/78-86-88	3771*/79-86-88
			3699**79-88-90	3735**83-92-93	3770**87-96-97
0	3676	3511F/70-81-84	3710*/77-86-88	3742*/78-86-88	3774*/79-86-88
			3705**80-89-91	3741**84-93-94	3776**88-97-97
-2	3677	3522F/71-81-84	3713*/77-86-88	3745*/78-86-88	3777*/79-86-88
			3710**80-89-91	3746**84-93-95	3781**88-97-98
-4	3677	3533F/71-82-85	3716*/77-86-88	3748*/78-86-88	3780*/79-86-88
			3716**81-90-92	3752**85-94-95	3787**89-98-98
-6	3677	3543F/71-82-85	3719*/77-86-88	3751*/78-86-88	3783*/79-86-88
			3722**81-91-92	3757**85-95-96	3787**88-98-99
-8	3677	3554F/72-82-85	3722*/78-86-88	3754*/78-86-88	3785*/79-86-88
			3728**82-91-93	3763**86-95-96	3787**89-98-99
-10	3677	3565F/72-83-85	3724*/78-86-88	3757*/79-86-88	3787F/79-86-88
			3733**82-92-93	3769**86-96-97	3787**89-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19	11	277	0	114	2582	0	121	2715	0
	154	3198	0	201	4428	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 36L

ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2697	2516*/54-55-58	2672*/61-61-63	2711*/61-62-63	2748*/61-62-63
				2711**63-63-65	2737**66-67-68
58A	2755	2555*/54-56-60	2716*/62-62-64	2756*/62-63-65	2795*/63-63-65
				2761**64-64-66	2787**67-68-69
56A	2822	2600*/55-57-61	2763*/63-63-66	2816*/65-65-67	2847*/64-65-67
					2846**68-68-70
54	2891	2641*/56-59-62	2808*/63-64-67	2864*/66-66-68	2900*/66-67-69
					2906**69-69-71
52	2969	2686*/56-60-64	2857*/64-66-68	2915*/66-68-70	2969*/68-69-71
					2971**69-70-72
50	3045	2730*/57-61-65	2904*/64-67-70	2964*/67-69-71	3024*/69-71-73
48	3125	2774*/57-62-67	2951*/65-68-71	3012*/67-70-73	3073*/70-72-74
46	3201	2815*/58-63-68	2995*/65-69-73	3057*/68-71-74	3120*/70-73-76
44	3277	2855*/58-64-69	3038*/66-70-74	3101*/68-72-75	3165*/71-74-77
42	3351	2895F/58-65-70	3080*/66-71-75	3145*/69-73-77	3210*/71-75-78
40	3426	2933F/59-66-71	3122*/67-72-76	3187*/69-74-78	3253*/72-76-80
38	3501	2968F/59-67-72	3160*/67-73-77	3226*/70-75-79	3294*/72-77-81
36	3569	3005F/59-68-74	3200*/67-74-79	3266*/70-76-80	3337*/73-78-82
34	3633	3037F/59-69-75	3235*/68-75-80	3303*/70-77-81	3375*/73-79-83
32	3665	3057F/60-69-75	3256*/68-75-80	3326*/71-78-82	3399*/73-80-83
30	3666	3065F/60-69-75	3265*/68-76-80	3336*/71-78-82	3409*/74-80-84
28	3666	3074F/60-70-76	3275*/69-76-81	3346*/71-78-82	3426*/74-80-84
26	3667	3082F/61-70-76	3284*/69-76-81	3356*/72-78-82	3445*/74-80-84
24	3668	3091F/61-70-76	3294*/69-77-81	3366*/72-79-83	3464*/74-80-84
22	3669	3100F/61-70-76	3304*/70-77-81	3376*/72-79-83	3484*/74-80-84
20	3670	3109F/62-71-76	3314*/70-77-82	3386*/73-79-83	3495*/75-80-84
18	3670	3118F/62-71-77	3324*/70-77-82	3397*/73-80-83	3505*/75-81-84
16	3671	3127F/62-71-77	3334*/71-78-82	3407*/73-80-84	3515*/75-81-84
14	3672	3136F/63-72-77	3344*/71-78-82	3423*/74-80-84	3526*/76-81-84
12	3673	3146F/63-72-77	3354*/71-78-82	3442*/74-80-84	3536*/76-82-85
10	3674	3155F/63-72-78	3364*/72-79-83	3461*/74-80-84	3547*/76-82-85
8	3674	3164F/64-72-78	3375*/72-79-83	3482*/74-80-84	3557*/77-82-85
6	3675	3173*/64-73-78	3385*/72-79-83	3494*/74-80-84	3568*/77-83-86
4	3676	3183*/64-73-78	3396*/73-80-83	3505*/75-81-84	3578*/78-83-86
2	3676	3192*/65-73-79	3406*/73-80-84	3515*/75-81-84	3589*/78-83-86
0	3676	3201*/65-74-79	3422*/73-80-84	3526*/75-81-84	3599*/78-84-86
-2	3677	3211*/65-74-79	3441*/73-80-84	3536*/76-82-85	3610*/79-84-87
-4	3677	3220*/66-74-79	3460*/74-80-84	3546*/76-82-85	3621*/79-84-87
-6	3677	3230*/66-75-80	3480*/74-80-84	3557*/77-82-85	3632*/80-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36L	10	109	0	48	1053	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36L BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D10.5 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 115 FT

RUNWAY 36L ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-8	3677	3239*/66-75-80	3494*/74-80-84	3568*/77-83-86	3643*/80-85-87

-10	3677	3249*/67-75-80	3504*/75-81-84	3578*/78-83-86	3654*/81-85-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

36L	10	109	0	48	1053	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36L BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,

COMMENCED AT D10.5 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 115 FT

RUNWAY 36R ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2697	2711*/59-62-63	2798*/61-62-63	2826*/61-62-63	2853*/61-62-63
		2717**61-64-66	2796**71-75-76	2814**74-79-79	2814**75-79-79
58A	2755	2760*/60-63-65	2849*/62-63-65	2877*/62-63-65	2906*/63-63-65
		2765**62-64-66	2845**71-76-76	2868**74-80-80	2871**76-80-80
56A	2822	2818*/62-65-67	2907*/63-65-67	2937*/64-65-67	2966*/64-65-67
			2903**71-76-77	2926**75-80-80	2938**78-82-82
54	2891	2868*/62-66-69	2967*/65-67-69	2998*/65-67-69	3028*/66-67-69
			2962**72-77-78	2987**75-81-81	3009**78-84-84
52	2969	2923*/62-68-70	3034*/66-69-71	3066*/67-69-71	3097*/67-69-71
			3029**72-77-78	3057**75-81-82	3081**78-85-85
50	3045	2976*/63-69-72	3099*/68-72-74	3132*/68-72-74	3165*/69-72-74
			3094**72-78-79	3123**75-82-82	3149**79-85-86
48	3125	3029*/63-71-73	3166*/69-74-76	3200*/70-74-76	3233*/70-74-76
			3160**72-78-80	3189**75-82-83	3217**79-86-86
46	3201	3079*/63-72-75	3229*/70-76-78	3264*/71-76-78	3300*/72-76-78
			3224**72-78-80	3254**75-82-84	3284**79-86-87
44	3277	3125F/63-73-76	3291*/72-78-80	3330*/72-78-80	3368*/73-78-80
			3286**72-79-81	3319**75-83-84	3351**79-87-87
42	3351	3168F/64-74-77	3346*/72-79-82	3392*/74-80-82	3449*/74-80-82
				3382**75-83-85	3417**79-87-88
40	3426	3209F/64-75-79	3397*/72-81-83	3483*/74-81-83	3523*/75-81-83
				3457**75-83-85	3498**79-87-88
38	3501	3247F/64-76-80	3468*/72-81-83	3529*/74-81-84	3569*/75-81-84
				3521**75-84-85	3556**79-87-89
36	3569	3288F/65-77-81	3523*/72-82-84	3586*/75-83-85	3626*/76-83-85
				3577**75-84-86	3613**79-88-89
34	3633	3325F/65-78-82	3567*/72-83-85	3627*/75-85-87	3679*/77-85-87
					3666**79-88-90
32	3665	3348F/65-78-82	3591*/72-83-86	3653*/76-85-88	3708*/78-86-88
					3695**79-89-91
30	3666	3357F/65-78-82	3600*/73-84-86	3661*/76-86-88	3713*/78-86-88
					3700**80-89-91
28	3666	3367F/66-79-83	3608*/73-84-86	3670*/76-86-88	3719*/78-86-88
				3669**76-86-88	3706**80-90-91
26	3667	3377F/66-79-83	3616*/74-84-87	3680*/77-86-88	3725*/78-86-88
				3674**77-86-88	3712**80-90-92
24	3668	3387F/66-79-83	3625*/74-84-87	3688*/77-86-88	3730*/78-86-88
				3679**77-87-89	3717**81-91-92
22	3669	3397F/67-80-83	3633*/74-85-87	3694*/77-86-88	3736*/78-86-88
				3685**78-87-89	3723**81-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

36R 39 875 0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,

COMMENCED AT D9.3 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 115 FT

RUNWAY 36R

ZBAA

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3670	3407F/67-80-84	3642*/75-85-87	3700*/78-86-88	3742*/78-86-88
				3690**78-88-90	3728**82-92-93
18	3670	3422F/67-80-84	3650*/75-85-87	3705*/78-86-88	3747*/79-86-88
				3696**79-88-90	3734**82-92-94
16	3671	3441F/67-80-84	3658*/76-85-88	3711*/78-86-88	3753*/79-86-88
				3702**79-89-91	3739**83-93-94
14	3672	3459F/67-80-84	3667*/76-86-88	3717*/78-86-88	3759*/79-86-88
				3707**80-90-91	3745**83-94-95
12	3673	3479F/67-80-84	3676*/77-86-88	3723*/78-86-88	3765*/79-86-88
			3675**77-86-88	3713**80-90-92	3751**84-94-95
10	3674	3493F/68-80-84	3686*/77-86-88	3728*/78-86-88	3771*/79-86-88
			3680**77-87-89	3719**81-91-92	3756**85-95-96
8	3674	3503F/68-81-84	3692*/77-86-88	3734*/78-86-88	3776*/79-86-88
			3686**78-87-89	3725**81-91-93	3762**85-95-96
6	3675	3514F/68-81-84	3697*/77-86-88	3740*/78-86-88	3782*/79-86-88
			3692**78-88-90	3731**82-92-93	3768**86-96-97
4	3676	3524F/69-81-84	3703*/77-86-88	3745*/78-86-88	3787F/79-86-88
			3697**79-88-90	3737**82-92-94	3774**86-96-97
2	3676	3532*/69-82-85	3708*/78-86-88	3751*/78-86-88	3787F/79-86-88
			3703**79-89-91	3742**83-93-94	3779**87-97-98
0	3676	3540*/70-82-85	3714*/78-86-88	3756*/79-86-88	3787F/79-86-88
			3709**80-89-91	3748**83-93-95	3785**87-98-98
-2	3677	3549*/70-82-85	3719*/78-86-88	3762*/79-86-88	3787F/79-86-88
			3714**80-90-92	3753**84-94-95	3787**88-98-99
-4	3677	3557*/70-82-85	3725*/78-86-88	3767*/79-86-88	3787F/80-86-88
			3720**81-90-92	3759**85-95-96	3787**89-98-99
-6	3677	3565*/71-83-85	3730*/78-86-88	3773*/79-86-88	3787F/80-86-88
			3726**81-91-93	3764**85-95-96	3787**89-98-99
-8	3677	3574*/71-83-86	3736*/78-86-88	3778*/79-86-88	3787F/80-86-88
			3732**82-92-93	3770**86-96-97	3787**89-98-99
-10	3677	3582*/72-83-86	3741*/78-86-88	3783*/79-86-88	3787F/80-86-88
			3737**82-92-94	3775**86-96-97	3787**89-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

36R	39	875	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D9.3 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 1761 FT

RUNWAY 10L OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2536	2547F/53-57-59	2711F/57-57-59	2765F/57-57-59	2821F/57-57-59
		2541**53-57-59	2608**62-67-67	2628**66-70-70	2647**69-73-73
58A	2590	2586F/54-58-60	2747F/58-58-60	2802F/58-58-60	2859F/58-58-60
			2655**63-67-68	2675**66-71-71	2695**69-74-74
56A	2653	2626F/54-59-61	2789F/60-60-62	2845F/60-60-62	2902F/60-60-62
			2709**63-68-69	2730**66-71-72	2750**70-74-75
54A	2717	2666F/55-60-63	2830F/62-62-64	2887F/62-62-64	2945F/62-62-64
			2764**64-69-70	2786**67-72-72	2807**70-75-75
52A	2778	2703F/55-61-64	2870F/63-64-66	2927F/64-64-66	2986F/64-64-66
			2817**64-69-70	2839**67-72-73	2862**70-75-76
50	2841	2742F/56-62-65	2911F/65-66-68	2969F/65-66-68	3029F/66-66-68
			2871**64-70-71	2895**67-73-74	2918**71-76-77
48	2913	2784F/57-63-66	2955F/65-68-70	3014F/67-68-70	3075F/67-68-70
			2932**64-70-72	2956**68-73-75	2980**71-77-77
46	2992	2828F/57-65-68	3001F/65-70-72	3062F/68-70-72	3123F/69-70-72
			2996**64-71-73	3022**68-74-75	3047**71-77-78
44	3068	2870F/58-66-69	3046F/65-72-74	3107F/68-72-74	3170F/71-72-74
				3085**68-74-76	3111**71-78-79
42	3137	2910F/58-67-70	3089F/65-73-75	3151F/68-74-76	3214F/72-74-76
				3143**68-75-77	3170**71-78-80
40	3206	2950F/59-68-71	3131F/66-74-76	3194F/69-76-78	3257F/72-76-78
					3229**72-79-80
38	3275	2988F/59-69-73	3171F/66-75-77	3234F/69-77-79	3300F/72-78-80
					3286**72-79-81
36	3342	3026F/59-70-74	3211F/67-76-79	3275F/70-78-80	3343F/72-79-82
34	3405	3060F/60-70-75	3247F/67-76-80	3314F/70-78-81	3383F/72-80-83
32	3474	3094F/60-71-76	3284F/68-77-81	3352F/70-79-82	3432F/73-81-83
30	3523	3122F/60-72-77	3315F/68-78-81	3385F/71-80-83	3491F/72-81-83
28	3554	3144F/61-72-77	3339F/69-79-82	3410F/71-81-84	3515F/73-82-84
26	3554	3153F/61-73-77	3349F/69-79-82	3427F/71-81-84	3525F/73-82-84
24	3554	3161F/61-73-78	3359F/69-79-82	3446F/71-81-84	3535F/74-82-85
22	3554	3170F/62-73-78	3369F/70-79-83	3464F/72-81-83	3545F/74-83-85
20	3554	3179F/62-74-78	3379F/70-80-83	3485F/72-81-83	3556F/74-83-85
18	3555	3188F/62-74-78	3390F/70-80-83	3496F/72-81-84	3566F/75-83-85
					3560**75-83-86
16	3555	3197F/63-74-79	3400F/70-80-83	3506F/72-81-84	3577F/75-83-85
					3565**75-84-86
14	3555	3206F/63-74-79	3410F/71-81-84	3516F/73-82-84	3587F/76-83-85
					3570**76-84-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 540 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

10L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 10L OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

12	3555	3215F/63-75-79	3429F/71-81-84	3527F/73-82-84	3598F/77-83-85 3575**76-85-87
10	3556	3224F/64-75-79	3448F/71-81-84	3537F/73-82-85	3609F/77-83-85 3580**77-85-87
8	3556	3233F/64-75-79	3468F/71-81-83	3548F/74-83-85	3620F/78-83-85 3586**77-86-88
6	3557	3243F/64-76-80	3488F/71-81-83	3559F/74-83-85	3631F/79-83-85 3591**78-86-88
4	3557	3252F/65-76-80	3498F/72-81-84	3570F/75-83-85 3563**75-84-86	3642F/79-83-85 3596**78-87-89
2	3557	3262F/65-76-80	3509F/72-81-84	3580F/75-83-85 3568**75-84-86	3654F/79-83-85 3602**79-88-89
0	3558	3272F/65-77-80	3519F/72-82-84	3591F/76-83-85 3573**76-85-87	3665F/79-83-85 3607**79-88-90
-2	3558	3282F/66-77-81	3530F/73-82-84	3602F/77-83-85 3578**76-85-87	3676F/79-83-85 3612**80-89-90
-4	3558	3292F/66-77-81	3541F/73-82-85	3614F/77-83-85 3584**77-86-87	3688F/79-83-85 3617**80-89-91
-6	3558	3302F/66-77-81	3552F/74-83-85	3625F/78-83-85 3589**77-86-88	3700F/79-83-85 3622**81-90-91
-8	3558	3313F/67-78-81	3563F/74-83-85 3560**74-83-85	3636F/79-83-85 3594**78-87-88	3712F/79-83-85 3627**81-90-91
-10	3558	3323F/67-78-82	3574F/75-83-85 3565**75-84-86	3648F/79-83-85 3599**78-87-89	3723F/79-83-85 3633**82-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 540 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

10L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 10R OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2536	2496*/54-55-57	2588*/57-57-59	2610*/57-57-59	2632*/57-57-59
			2592**63-64-65	2616**66-68-69	2638**69-72-72
58A	2590	2537*/55-56-59	2638*/58-58-60	2661*/58-58-60	2683*/58-58-60
			2639**63-65-66	2663**66-69-69	2685**69-72-72
56A	2653	2583*/56-58-60	2696*/60-60-62	2721*/60-60-62	2744*/60-60-62
			2692**64-66-67	2717**67-69-70	2740**70-73-73
54A	2717	2626*/56-59-62	2755*/62-62-64	2780*/62-62-64	2804*/62-62-64
			2746**64-66-67	2771**67-70-71	2796**70-73-74
52A	2778	2665*/57-60-63	2806*/63-64-66	2836*/64-64-66	2861*/64-64-66
			2797**64-66-68	2824**67-70-71	2849**71-74-74
50	2841	2706*/57-61-64	2859*/65-66-68	2891*/65-66-68	2920*/66-66-68
			2851**65-67-69	2878**68-71-72	2904**71-74-75
48	2913	2750*/58-62-65	2906*/65-68-70	2951*/67-68-70	2983*/67-68-70
				2938**68-71-73	2965**71-75-76
46	2992	2795*/58-63-67	2957*/65-69-71	3015*/68-70-72	3048*/69-70-72
				3003**68-71-73	3031**71-75-76
44	3068	2839*/59-65-68	3005*/66-70-73	3061*/69-72-74	3110*/71-72-74
					3094**72-75-77
42	3137	2880*/59-66-69	3050*/66-71-74	3107*/69-73-75	3167*/72-74-76
					3152**72-76-78
40	3206	2921*/59-67-71	3094*/67-72-75	3152*/70-74-77	3212*/72-76-78
					3208**72-76-78
38	3275	2959*/60-68-72	3135*/67-73-76	3195*/70-75-78	3255*/73-77-79
36	3342	2998*/60-69-73	3176*/68-74-78	3237*/70-76-79	3299*/73-78-81
34	3405	3033*/60-69-74	3213*/68-75-79	3276*/71-77-80	3341*/73-79-82
32	3474	3067*/61-70-75	3250*/69-76-80	3315*/71-78-81	3381*/74-80-83
30	3523	3096*/61-71-76	3281*/69-77-81	3348*/72-79-82	3419*/74-81-84
28	3554	3117*/61-72-77	3305*/69-78-81	3373*/72-79-83	3464*/74-81-83
26	3554	3126*/62-72-77	3315*/70-78-81	3382*/72-80-83	3481*/74-81-83
24	3554	3134*/62-72-77	3324*/70-78-82	3392*/73-80-83	3493*/75-81-84
22	3554	3142*/62-72-77	3333*/70-78-82	3402*/73-80-83	3502*/75-81-84
20	3554	3151*/63-73-77	3343*/71-79-82	3412*/73-81-84	3511*/75-82-84
18	3555	3159*/63-73-78	3352*/71-79-82	3428*/74-81-84	3520*/76-82-84
16	3555	3168*/63-73-78	3362*/71-79-82	3445*/74-81-84	3530*/76-82-84
14	3555	3176*/64-74-78	3372*/72-79-83	3462*/74-81-83	3539*/76-82-85
12	3555	3185*/64-74-78	3382*/72-80-83	3479*/74-81-83	3548*/77-83-85
10	3556	3194*/64-74-78	3392*/72-80-83	3492*/74-81-84	3558*/77-83-85
					3557**77-83-85
8	3556	3203*/65-74-79	3402*/73-80-83	3502*/75-81-84	3570*/78-83-85
					3563**78-84-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 270 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

10R	12	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 10R OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
6	3557	3212*/65-75-79	3412*/73-81-84	3511*/75-82-84	3582*/79-83-85 3568**78-84-86
4	3557	3221*/65-75-79	3429*/73-81-84	3521*/76-82-84	3590*/79-83-85 3573**79-85-87
2	3557	3230*/66-75-79	3446*/74-81-84	3530*/76-82-84	3596*/79-83-85 3579**79-85-87
0	3558	3239*/66-75-80	3463*/74-81-83	3539*/76-82-85	3601*/79-83-85 3584**80-86-88
-2	3558	3248*/66-76-80	3481*/74-81-83	3549*/77-83-85	3607*/79-83-85 3590**80-86-88
-4	3558	3257*/67-76-80	3493*/74-81-84	3558*/77-83-85	3612*/79-83-85 3595**81-87-89
-6	3558	3266*/67-76-80	3502*/75-81-84	3570*/78-83-85 3564**78-84-86	3618*/79-83-85 3601**81-87-89
-8	3558	3275*/68-77-81	3512*/75-82-84	3582*/79-83-85 3569**78-84-86	3623*/79-83-85 3607**82-88-90
-10	3558	3285*/68-77-81	3521*/76-82-84	3588*/79-83-85 3574**79-85-87	3628*/79-83-85 3612**82-89-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 270 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
10R	12	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28L OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2536	2543*/53-57-59	2643*/54-57-59	2676*/55-57-59	2709*/55-57-59
		2549**56-58-60	2619**65-69-69	2641**68-72-72	2649**69-74-74
58A	2590	2590*/55-58-60	2689*/56-58-60	2723*/56-58-60	2756*/56-58-60
		2596**56-59-61	2668**65-69-70	2689**68-73-73	2703**70-75-75
56A	2653	2642*/57-60-62	2743*/57-60-62	2778*/58-60-62	2812*/58-60-62
			2723**66-70-71	2746**69-74-74	2766**72-77-77
54A	2717	2683*/57-61-63	2793*/59-62-64	2831*/59-62-64	2868*/60-62-64
			2778**66-71-71	2802**70-74-75	2825**73-78-78
52A	2778	2722*/57-62-64	2841*/60-64-66	2879*/61-64-66	2917*/61-64-66
			2830**66-71-72	2855**70-74-75	2879**73-78-78
50	2841	2763*/58-63-66	2891*/61-66-68	2930*/62-66-68	2969*/62-66-68
			2884**67-71-73	2910**70-75-76	2935**73-78-79
48	2913	2806*/58-64-67	2945*/63-68-70	2985*/63-68-70	3025*/64-68-70
			2944**67-72-73	2971**70-75-76	2997**73-79-79
46	2992	2852*/58-65-68	3004*/64-70-72	3045*/65-70-72	3086*/65-70-72
			3008**66-72-74	3036**70-76-77	3063**73-79-80
44	3068	2895*/59-67-70	3068*/66-72-74	3102*/66-72-74	3144*/67-72-74
			3069**66-72-74	3099**70-76-78	3127**73-80-81
42	3137	2936*/59-68-71	3114*/67-73-76	3154*/67-74-76	3198*/68-74-76
				3156**70-76-78	3186**73-80-81
40	3206	2977*/59-69-72	3157*/67-74-77	3206*/68-76-78	3250*/69-76-78
				3213**70-77-79	3243**73-80-82
38	3275	3016*/59-70-73	3199*/67-75-78	3262*/70-77-80	3303*/70-78-80
					3301**73-81-82
36	3342	3054*/60-70-74	3240*/68-76-79	3305*/70-78-81	3354*/71-79-82
					3358**73-81-83
34	3405	3089*/60-71-76	3278*/68-77-80	3345*/71-79-82	3405*/72-81-83
					3410**73-81-84
32	3474	3124*/60-72-77	3316*/68-78-81	3385*/71-80-83	3474*/72-81-83
					3480**73-82-84
30	3523	3153*/60-73-77	3349*/68-79-82	3424*/71-81-83	3521*/73-82-84
28	3554	3175*/60-73-78	3373*/69-79-83	3469*/71-81-83	3546*/73-83-85
26	3554	3184*/61-74-78	3383*/69-80-83	3486*/71-81-83	3554*/74-83-85
24	3554	3192*/61-74-78	3393*/69-80-83	3496*/71-81-84	3554*/73-83-85
					3560**74-83-86
22	3554	3201*/61-74-79	3402*/70-80-83	3506*/72-81-84	3560*/73-83-85
					3565**75-84-86
20	3554	3209*/62-75-79	3413*/70-81-84	3515*/72-82-84	3567*/73-83-85
					3570**75-85-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 190 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
28L	24	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28L OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
18	3555	3218*/62-75-79	3431*/70-81-84	3525*/72-82-84	3574*/73-83-85 3575**76-85-87
16	3555	3227*/62-75-79	3448*/70-81-84	3535*/73-82-85	3581*/73-83-85 3581**76-86-87
14	3555	3236*/63-75-80	3466*/70-81-83	3544*/73-83-85	3589*/73-83-85 3586**77-86-88
12	3555	3244*/63-76-80	3484*/71-81-83	3554*/74-83-85	3596*/73-83-85 3591**77-87-88
10	3556	3254*/63-76-80	3495*/71-81-84	3556*/73-83-85 3561**74-83-86	3603*/74-83-85 3597**78-87-89
8	3556	3263*/64-76-80	3505*/71-81-84	3560*/73-83-85 3566**74-84-86	3611*/74-83-85 3603**78-88-89
6	3557	3272*/64-77-80	3515*/72-82-84	3567*/73-83-85 3572**75-84-86	3618*/74-83-85 3609**79-88-90
4	3557	3282*/64-77-81	3525*/72-82-84	3574*/73-83-85 3577**75-85-87	3626*/74-83-85 3614**79-89-90
2	3557	3291*/65-77-81	3535*/73-82-85	3582*/73-83-85 3583**76-86-87	3633*/74-83-85 3620**80-89-91
0	3558	3301*/65-77-81	3545*/73-83-85	3589*/73-83-85 3588**77-86-88	3641*/74-83-85 3625**80-90-91
-2	3558	3311*/65-78-81	3556*/73-83-85	3597*/73-83-85 3594**77-87-88	3649*/74-83-85 3631**81-91-92
-4	3558	3321*/66-78-82	3558*/73-83-85 3562**74-83-86	3604*/73-83-85 3600**78-87-89	3656*/74-83-85 3636**81-91-92
-6	3558	3331*/66-78-82	3560*/72-83-85 3568**74-84-86	3612*/73-83-85 3605**78-88-89	3664*/74-83-85 3642**82-92-93
-8	3558	3341*/67-79-82	3567*/73-83-85 3573**75-85-87	3619*/74-83-85 3611**79-88-90	3671*/74-83-85 3647**83-92-93
-10	3558	3351*/67-79-82	3575*/73-83-85 3579**75-85-87	3627*/74-83-85 3617**79-89-90	3679*/75-83-85 3653**83-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 190 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
28L	24	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28R OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2536	2658F/53-57-59	2829F/54-57-59	2888F/55-57-59	2914F/55-57-59
		2588**55-64-65	2648**65-73-73	2649**69-74-74	2649**69-74-74
58A	2590	2693F/54-58-60	2865F/56-58-60	2925F/56-58-60	2972F/56-58-60
		2633**55-64-65	2696**65-74-74	2703**69-75-75	2703**70-75-75
56A	2653	2732F/56-60-62	2907F/57-60-62	2967F/58-60-62	3029F/58-60-62
		2687**55-65-66	2751**65-75-75	2766**69-77-77	2766**72-77-77
54A	2717	2772F/56-62-64	2948F/59-62-64	3009F/59-62-64	3072F/60-62-64
		2740**55-65-67	2807**65-75-75	2828**69-78-78	2833**73-79-79
52A	2778	2809F/56-64-66	2988F/60-64-66	3050F/61-64-66	3113F/61-64-66
		2792**55-66-67	2862**66-75-76	2883**69-79-79	2898**73-81-81
50	2841	2848F/56-66-68	3029F/61-66-68	3092F/62-66-68	3156F/62-66-68
		2845**55-66-68	2918**66-76-77	2940**69-79-80	2961**72-83-83
48	2913	2891F/56-67-69	3074F/63-68-70	3137F/63-68-70	3202F/64-68-70
			2979**66-76-77	3003**69-80-80	3025**73-83-83
46	2992	2935F/56-68-71	3121F/64-70-72	3185F/65-70-72	3251F/65-70-72
			3046**65-77-78	3070**69-80-81	3094**72-83-84
44	3068	2977F/56-69-72	3165F/65-72-74	3231F/66-72-74	3298F/67-72-74
			3109**65-77-79	3135**69-81-82	3161**72-84-85
42	3137	3018F/57-70-73	3208F/66-74-76	3274F/67-74-76	3345F/68-74-76
			3168**65-78-79	3195**69-81-82	3221**72-84-85
40	3206	3058F/57-71-74	3250F/66-76-78	3319F/68-76-78	3391F/69-76-78
			3225**65-78-80	3253**69-82-83	3280**73-85-86
38	3275	3095F/57-72-75	3291F/65-78-80	3362F/69-78-80	3457F/70-78-80
			3282**65-79-81	3312**69-82-84	3342**72-85-86
36	3342	3127T/58-73-76	3333F/65-79-81	3405F/69-79-82	3514F/71-79-82
				3369**69-82-84	3399**72-86-87
34	3405	3146T/58-73-77	3371F/66-80-82	3475F/69-81-83	3553F/72-81-83
				3428**69-83-85	3471**72-86-87
32	3474	3165T/59-74-78	3410F/66-81-83	3518F/69-81-83	3591F/72-81-83
				3494**68-83-85	3526**72-86-88
30	3523	3185T/59-74-78	3469F/65-81-83	3550F/69-82-84	3623F/72-82-84
				3535**68-83-85	3568**72-87-88
28	3554	3206T/60-74-79	3502F/65-81-84	3574F/69-83-85	3648F/73-83-85
				3563**69-84-86	3596**72-87-89
26	3554	3229T/59-75-79	3512F/66-82-84	3585F/69-83-85	3659F/73-83-85
				3568**69-84-86	3601**73-88-89
24	3554	3252T/59-76-80	3522F/66-82-84	3595F/70-83-85	3669F/73-83-85
				3573**69-85-87	3606**73-88-90
22	3554	3276T/59-77-81	3533F/66-82-85	3606F/70-83-85	3681F/73-83-85
				3578**70-85-87	3611**74-89-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

28R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28R OPIS

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3554	3291F/59-77-81	3543F/67-83-85	3617F/71-83-85	3692F/73-83-85
				3583**70-86-88	3616**74-89-91
18	3555	3301F/60-77-81	3554F/67-83-85	3628F/72-83-85	3703F/73-83-85
				3588**71-86-88	3621**75-90-91
16	3555	3311F/60-78-81	3565F/68-83-85	3639F/72-83-85	3715F/73-83-85
			3560**68-83-85	3593**71-87-88	3626**75-90-92
14	3555	3321F/60-78-82	3575F/68-83-85	3650F/72-83-85	3726F/73-83-85
			3565**68-84-86	3598**72-87-89	3631**76-91-92
12	3555	3332F/61-78-82	3586F/69-83-85	3661F/73-83-85	3738F/73-83-85
			3570**69-84-86	3603**72-88-89	3636**76-91-92
10	3556	3342F/61-79-82	3598F/70-83-85	3673F/73-83-85	3750F/74-83-85
			3575**69-85-87	3609**73-88-90	3641**77-92-93
8	3556	3353F/61-79-82	3609F/70-83-85	3684F/73-83-85	3761F/74-83-85
			3580**70-85-87	3614**73-89-90	3646**77-92-93
6	3557	3364F/62-79-83	3620F/71-83-85	3696F/73-83-85	3773F/74-83-85
			3586**70-86-88	3619**74-89-91	3652**78-93-94
4	3557	3374F/62-80-83	3632F/71-83-85	3708F/73-83-85	3786F/74-83-85
			3591**71-86-88	3625**74-90-91	3657**78-94-94
2	3557	3385F/62-80-83	3643F/72-83-85	3720F/73-83-85	3787F/74-83-85
			3596**71-87-89	3630**75-91-92	3663**79-94-95
0	3558	3396F/63-80-83	3655F/72-83-85	3732F/73-83-85	3787F/74-83-85
			3602**72-88-89	3635**75-91-92	3668**79-95-95
-2	3558	3407F/63-80-84	3666F/72-83-85	3744F/73-83-85	3787F/74-83-85
			3607**72-88-90	3640**76-92-93	3673**80-95-96
-4	3558	3425F/63-81-84	3678F/72-83-85	3756F/73-83-85	3787F/74-83-85
			3613**73-89-90	3645**77-92-93	3678**80-96-96
-6	3558	3445F/63-81-84	3690F/72-83-85	3768F/73-83-85	3787F/74-83-85
			3618**73-89-91	3651**77-93-94	3683**81-96-97
-8	3558	3465F/63-81-83	3702F/73-83-85	3780F/74-83-85	3787F/74-83-85
			3623**74-90-91	3656**78-93-94	3688**82-97-98
-10	3558	3487F/63-81-83	3714F/73-83-85	3787F/74-83-85	3787F/75-83-85
			3628**74-90-92	3661**78-94-95	3693**82-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

28R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 12L OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2702	2652*/60-60-62	2728*/61-62-64	2753*/61-62-64	2776*/62-62-64
		2661**64-66-67	2756**69-72-73	2787**72-75-75	2818**75-78-79
58A	2760	2705*/61-61-64	2781*/62-63-65	2806*/63-63-65	2831*/63-63-65
		2711**64-66-68	2808**70-73-74	2839**73-75-76	2871**76-79-79
56A	2828	2765*/63-63-66	2842*/63-65-67	2867*/64-65-67	2893*/64-65-67
		2770**65-67-69	2867**72-75-75	2899**73-76-76	2931**77-80-80
54	2897	2826*/65-65-67	2904*/65-67-69	2931*/65-67-69	2957*/66-67-69
		2830**67-69-71	2930**74-77-77	2963**75-78-78	2996**78-81-81
52	2975	2895*/67-67-69	2975*/67-70-72	3001*/67-70-72	3029*/67-70-72
		2898**69-71-73	3001**76-79-80	3035**77-80-81	3069**79-82-83
50	3052	2962*/69-69-71	3052*/70-72-74	3070*/68-72-74	3098*/69-72-74
		2964**69-71-73	3069**79-79-80	3105**79-82-83	3140**81-83-84
48	3131	3029*/69-71-73	3130*/74-74-76	3140*/70-74-76	3169*/71-74-76
			3138**77-79-81	3174**80-82-83	3210**85-85-86
46	3208	3086*/69-72-75	3199*/76-76-78	3208*/71-76-78	3238*/72-76-78
			3206**79-81-82	3242**81-83-84	3279**84-86-87
44	3284	3140*/69-73-76	3266*/77-77-80	3284*/75-78-80	3306*/73-78-80
			3271**79-80-82	3311**82-84-85	3350**84-86-87
42	3358	3193*/69-75-78	3333*/79-79-81	3358*/77-80-82	3372*/75-80-82
				3377**82-83-85	3421**85-87-88
40	3434	3240B/69-76-79	3393*/79-80-83	3434*/79-81-83	3447*/75-81-83
				3451**82-83-85	3502**85-87-88
38	3507	3280B/68-77-80	3463*/78-81-83	3507*/79-82-84	3513*/75-82-84
				3516**81-83-85	3559**85-87-89
36	3575	3323B/67-78-82	3520B/78-82-84	3572*/81-83-85	3575*/77-83-86
					3615**85-88-89
34	3640	3357B/66-79-82	3562B/77-83-85	3618B/81-84-87	3640*/79-85-87
					3668**85-88-90
32	3668	3382B/66-79-83	3584B/77-83-86	3640B/81-85-87	3668*/80-86-88
					3692**85-88-90
30	3669	3390B/67-79-83	3591B/77-83-86	3647B/81-85-87	3669*/80-86-88
					3698**85-89-91
28	3670	3397B/67-80-83	3598B/78-84-86	3653B/82-85-88	3670*/79-86-88
					3704**86-89-91
26	3670	3404B/68-80-84	3604B/78-84-86	3660B/82-85-88	3670*/79-86-88
					3710**87-90-92
24	3671	3412B/68-80-84	3611B/79-84-87	3666B/83-86-88	3671*/78-86-88
					3716**87-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 490 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4050 M LONG WITH 60 M OF CLEARWAY AND 126 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12L	34	576	0	59	982	0	54	984	0
	104	1538	0	280	15160	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 12L OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3672	3423B/68-80-84	3618B/79-84-87	3672*/83-86-88	3676*/79-86-88
				3673**83-86-88	3722**88-91-93
20	3673	3435B/69-80-84	3625B/80-84-87	3673*/83-86-88	3680*/79-86-88
				3679**84-86-89	3728**88-92-93
18	3673	3445B/69-80-84	3631B/80-85-87	3673*/82-86-88	3684*/79-86-88
				3685**85-87-89	3734**89-92-94
16	3674	3456B/69-80-84	3638B/81-85-87	3674*/82-86-88	3688*/79-86-88
				3691**85-88-90	3739**89-93-94
14	3675	3467B/70-80-84	3645B/82-85-87	3675*/81-86-88	3692*/79-86-88
				3698**86-88-90	3745**90-93-95
12	3676	3478B/70-80-84	3652B/82-85-88	3676*/81-86-88	3697*/79-86-88
				3704**86-89-91	3751**90-94-95
10	3677	3488B/70-80-84	3658B/83-85-88	3677*/80-86-88	3701*/79-86-88
				3711**87-89-91	3757**91-94-96
8	3678	3495B/71-80-84	3665B/83-86-88	3678*/80-86-88	3705*/79-86-88
				3717**88-90-92	3763**91-95-96
6	3679	3502B/71-81-84	3671B/84-86-88	3679*/79-86-88	3709*/79-86-88
				3724**88-91-92	3769**92-96-97
4	3679	3509B/72-81-84	3677B/84-86-88	3679*/79-86-88	3713*/79-86-88
				3730**89-91-93	3775**92-96-97
2	3679	3516B/73-81-84	3679*/84-86-88	3681*/79-86-88	3717*/80-86-88
			3684**85-86-89	3737**89-92-93	3781**93-97-98
0	3680	3522B/73-81-84	3680*/84-86-88	3685*/79-86-88	3721*/80-86-88
			3690**86-88-90	3742**90-93-94	3786**94-97-98
-2	3680	3529B/74-81-85	3680*/83-86-88	3688*/79-86-88	3724*/80-86-88
			3696**86-88-90	3748**91-93-94	3787**93-98-98
-4	3680	3536B/74-82-85	3680*/83-86-88	3692*/79-86-88	3728*/80-86-88
			3703**87-89-91	3753**91-94-95	3787**93-98-98
-6	3680	3543B/75-82-85	3680*/82-86-88	3696*/79-86-88	3731*/80-86-88
			3709**88-89-91	3759**92-94-96	3787**92-98-98
-8	3680	3549B/75-82-85	3680*/81-86-88	3699*/79-86-88	3735*/80-86-88
			3715**88-90-92	3765**92-95-96	3787**92-98-98
-10	3681	3556B/76-82-85	3681*/81-86-88	3703*/79-86-88	3738*/80-86-88
			3722**89-91-92	3771**93-96-97	3787**91-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 490 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4050 M LONG WITH 60 M OF CLEARWAY AND 126 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12L	34	576	0	59	982	0	54	984	0
	104	1538	0	280	15160	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 62 FT RUNWAY 12R OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

60A	2702	2734*/59-62-64	2803*/61-62-64	2825*/62-62-64	2845*/62-62-64
		2769**69-72-72	2819**74-79-79	2819**75-79-79	2819**75-79-79
58A	2760	2787*/61-63-65	2857*/62-63-65	2880*/63-63-65	2902*/63-63-65
		2822**71-73-74	2877**76-80-80	2877**76-80-80	2877**77-80-80
56A	2828	2847*/62-65-67	2920*/64-65-67	2944*/64-65-67	2967*/65-65-67
		2881**71-74-75	2944**77-82-82	2944**78-82-82	2944**78-82-82
54	2897	2910*/63-67-69	2985*/65-67-69	3010*/66-67-69	3033*/66-67-69
		2943**72-74-75	3016**79-85-85	3016**79-85-85	3016**80-85-85
52	2975	2979*/65-70-72	3058*/67-70-72	3083*/67-70-72	3108*/68-70-72
		3010**72-74-75	3093**80-86-86	3100**81-87-87	3100**82-87-87
50	3052	3052*/67-72-74	3129*/68-72-74	3155*/69-72-74	3181*/69-72-74
		3073**72-74-76	3160**80-86-86	3181**83-89-89	3181**84-89-89
48	3131	3131*/71-74-76	3201*/70-74-76	3228*/70-74-76	3255*/71-74-76
		3137**72-75-77	3227**80-86-87	3259**85-91-91	3261**85-92-92
46	3208	3189B/70-75-78	3270*/71-76-78	3300*/72-76-78	3328*/72-76-78
			3293**80-87-87	3329**85-92-92	3345**87-94-94
44	3284	3237B/69-77-79	3341*/72-78-80	3371*/73-78-80	3401*/74-78-80
			3361**80-87-88	3399**85-92-92	3433**89-95-95
42	3358	3272B/68-77-80	3407*/74-80-82	3454*/74-80-82	3493*/75-80-82
			3429**80-87-88	3479**84-91-92	3513**88-96-96
40	3434	3292B/68-78-81	3495*/74-81-83	3526*/75-81-83	3556*/76-81-83
			3500**78-87-88	3537**83-91-92	3570**87-95-96
38	3507	3314B/68-78-81	3548*/74-82-84	3581*/75-82-84	3612*/76-82-84
			3552**77-86-88	3590**81-91-92	3625**86-95-95
36	3575	3335B/67-78-82	3608*/75-83-86	3642*/76-83-86	3675*/77-83-86
			3603**76-86-88	3643**80-91-92	3679**85-95-96
34	3640	3357B/67-79-82	3640B/75-85-87	3699*/77-85-87	3733*/78-85-87
			3652**75-86-88	3693**80-91-92	3730**84-95-96
32	3668	3382B/67-79-83	3668B/75-86-88	3725*/78-86-88	3760*/79-86-88
			3676**75-86-89	3717**79-91-92	3754**84-95-96
30	3669	3408B/67-80-84	3669B/76-86-88	3729*/78-86-88	3764*/79-86-88
			3681**76-87-89	3723**80-91-93	3760**85-96-96
28	3670	3489B/65-80-84	3670B/77-86-88	3733*/78-86-88	3768*/79-86-88
			3687**76-88-89	3729**81-92-93	3766**85-96-97
26	3670	3499B/66-81-84	3676B/77-86-88	3738*/78-86-88	3772*/79-86-88
			3693**77-88-90	3734**81-92-94	3772**86-97-97
24	3671	3509B/66-81-84	3699B/77-86-88	3742*/78-86-88	3776*/79-86-88
			3698**77-89-90	3740**82-93-94	3777**86-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 670 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4315 M LONG WITH 60 M OF CLEARWAY AND 189 M OF STOPWAY

RUNWAY SLOPES ARE 0.35 PERCENT FOR TODA AND 0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12R	26	655	0	32	658	0	67	1387	0
	72	1448	0	304	13162	0	363	21346	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 12R OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3672	3519B/66-81-84	3711*/77-86-88	3746*/78-86-88	3780*/79-86-88
			3704**78-89-91	3745**82-94-95	3783**87-98-99
20	3673	3530B/67-82-85	3715*/77-86-88	3750*/78-86-88	3784*/79-86-88
			3710**78-90-91	3751**83-94-95	3787**88-98-99
18	3673	3540B/67-82-85	3719*/78-86-88	3754*/78-86-88	3787F/79-86-88
			3716**79-90-92	3757**83-95-96	3787**88-98-99
16	3674	3550B/67-82-85	3723*/78-86-88	3758*/78-86-88	3787F/79-86-88
			3722**79-91-92	3763**84-95-96	3787**89-98-99
14	3675	3561B/68-82-85	3728*/78-86-88	3762*/79-86-88	3787F/79-86-88
			3728**80-91-93	3769**85-96-97	3787**89-98-99
12	3676	3572B/68-83-86	3732*/78-86-88	3767*/79-86-88	3787F/80-86-88
			3734**81-92-93	3775**85-97-97	3787**89-98-99
10	3677	3581B/69-83-86	3736*/78-86-88	3771*/79-86-88	3787F/80-86-88
			3740**81-93-94	3781**86-97-98	3787**89-98-99
8	3678	3589B/69-83-86	3741*/78-86-88	3775*/79-86-88	3787F/80-86-88
			3746**82-93-94	3787**86-98-98	3787**89-98-98
6	3679	3598B/69-84-86	3745*/78-86-88	3779*/79-86-88	3787F/80-86-88
			3752**82-94-95	3787**87-98-98	3787**89-98-98
4	3679	3606B/70-84-86	3748*/78-86-88	3782*/79-86-88	3787F/80-86-88
			3758**83-94-95	3787**88-98-98	3787**89-98-98
2	3679	3613B/70-84-87	3752*/78-86-88	3786*/79-86-88	3787F/80-86-88
			3763**84-95-96	3787**88-98-98	3787**89-98-98
0	3680	3620B/71-84-87	3756*/78-86-88	3787F/79-86-88	3787F/80-86-88
			3769**84-96-97	3787**88-98-98	3787**89-98-98
-2	3680	3627B/72-84-87	3760*/79-86-88	3787F/79-86-88	3787F/80-86-88
			3775**85-96-97	3787**88-98-98	3787**89-98-98
-4	3680	3634B/72-85-87	3763*/79-86-88	3787F/79-86-88	3787F/80-86-88
			3781**86-97-98	3787**89-98-98	3787**89-98-98
-6	3680	3641B/73-85-87	3767*/79-86-88	3787F/80-86-88	3787F/80-86-88
			3787**86-97-98	3787**89-98-98	3787**89-98-98
-8	3680	3647B/73-85-87	3770*/79-86-88	3787F/80-86-88	3787F/80-86-88
			3787**87-98-98	3787**89-98-98	3787**90-98-98
-10	3681	3654B/74-85-88	3773*/79-86-88	3787F/80-86-88	3787F/81-86-88
			3787**88-98-98	3787**89-98-98	3787**90-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 670 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4315 M LONG WITH 60 M OF CLEARWAY AND 189 M OF STOPWAY

RUNWAY SLOPES ARE 0.35 PERCENT FOR TODA AND 0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12R	26	655	0	32	658	0	67	1387	0
	72	1448	0	304	13162	0	363	21346	0

ENG-OUT PROCEDURE:
NONE

ELEVATION 62 FT RUNWAY 30L OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2702	2664*/60-60-63	2739*/60-62-64	2764*/60-62-64	2788*/61-62-64
		2672**64-68-69	2768**70-73-73	2799**72-76-76	2819**74-79-79
58A	2760	2716*/62-62-64	2791*/61-63-65	2817*/62-63-65	2842*/62-63-65
		2722**65-68-70	2819**70-73-74	2851**73-76-77	2877**76-80-80
56A	2828	2776*/64-64-66	2851*/62-65-67	2878*/63-65-67	2904*/64-65-67
		2781**65-68-70	2879**72-75-76	2911**74-77-78	2942**78-82-82
54	2897	2837*/65-65-68	2914*/64-67-69	2941*/64-67-69	2968*/65-67-69
		2842**67-69-71	2942**74-77-78	2975**75-78-79	3007**79-83-83
52	2975	2906*/67-67-70	2983*/65-70-72	3012*/66-70-72	3039*/67-70-72
		2910**69-72-73	3013**76-79-80	3047**77-80-81	3080**80-84-84
50	3052	2974*/69-69-72	3052*/67-72-74	3080*/67-72-74	3109*/68-72-74
		2977**70-73-75	3081**77-80-81	3117**79-82-83	3151**81-85-85
48	3131	3042*/71-71-74	3131*/70-74-76	3150*/69-74-76	3180*/70-74-76
		3044**72-73-76	3151**78-81-82	3187**80-84-84	3223**82-86-86
46	3208	3108B/71-73-76	3208*/74-76-78	3217*/70-76-78	3248*/71-76-78
			3219**78-81-83	3255**82-85-86	3293**84-87-88
44	3284	3156B/69-74-77	3279*/78-78-80	3284*/72-78-80	3317*/72-78-80
			3286**80-83-85	3325**82-85-86	3364**86-90-90
42	3358	3201B/68-75-78	3346*/79-79-82	3358*/74-80-82	3382*/73-80-82
			3351**80-82-84	3392**83-86-87	3442**85-89-89
40	3434	3246B/67-76-79	3407B/78-81-83	3434*/76-81-83	3463*/74-81-83
				3473**82-84-86	3519**86-89-90
38	3507	3288B/66-77-81	3474B/77-81-83	3507*/77-82-84	3523*/74-82-84
				3527**81-84-86	3571**85-89-90
36	3575	3332B/65-78-82	3524B/76-82-84	3575*/79-83-86	3583*/75-83-86
				3577**80-84-86	3623**84-88-90
34	3640	3357B/65-79-82	3568B/75-83-85	3623B/79-84-87	3640*/76-85-87
					3672**83-88-90
32	3668	3382B/64-79-83	3589B/75-83-86	3645B/79-85-87	3668*/77-86-88
					3695**83-89-90
30	3669	3400B/64-80-83	3596B/75-84-86	3652B/79-85-88	3669*/77-86-88
					3701**83-89-91
28	3670	3407B/65-80-84	3603B/76-84-86	3658B/80-85-88	3673*/77-86-88
					3707**84-90-91
26	3670	3416B/65-80-84	3610B/76-84-87	3665B/80-86-88	3678*/77-86-88
					3713**84-90-92
24	3671	3427B/66-80-84	3617B/77-84-87	3671*/81-86-88	3682*/77-86-88
					3719**85-91-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 480 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4447 M LONG WITH 60 M OF CLEARWAY AND 235 M OF STOPWAY

RUNWAY SLOPES ARE -0.35 PERCENT FOR TODA AND -0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30L	20	547	0	65	1346	0	140	1558	0
	155	3214	0	324	6146	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 30L OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE
OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

22	3672	3437B/66-80-84	3623B/77-84-87	3672*/80-86-88	3686*/77-86-88
				3678**81-86-89	3726**86-91-93
20	3673	3448B/66-80-84	3630B/78-85-87	3673*/80-86-88	3691*/77-86-88
				3684**82-87-89	3732**86-92-93
18	3673	3458B/67-80-84	3637B/78-85-87	3673*/79-86-88	3695*/77-86-88
				3690**82-88-90	3737**87-93-94
16	3674	3468B/67-80-84	3644B/79-85-87	3674*/79-86-88	3699*/77-86-88
				3696**83-88-90	3743**87-93-94
14	3675	3478B/67-80-84	3650B/79-85-87	3675*/78-86-88	3704*/78-86-88
				3702**84-89-91	3750**88-94-95
12	3676	3488B/68-80-84	3657B/80-85-88	3676*/78-86-88	3708*/78-86-88
				3709**84-89-91	3756**89-94-96
10	3677	3495B/68-80-84	3664B/80-86-88	3677*/77-86-88	3713*/78-86-88
				3715**85-90-92	3762**89-95-96
8	3678	3502B/69-81-84	3671B/81-86-88	3680*/77-86-88	3717*/78-86-88
				3721**85-90-92	3769**90-96-97
6	3679	3509B/69-81-84	3678B/82-86-88	3685*/77-86-88	3721*/78-86-88
				3728**86-91-93	3775**90-96-97
4	3679	3515B/70-81-84	3679*/81-86-88	3689*/77-86-88	3725*/78-86-88
			3684**82-86-89	3734**87-92-93	3781**91-97-98
2	3679	3522B/70-81-84	3679*/81-86-88	3693*/77-86-88	3729*/78-86-88
			3690**83-87-89	3740**87-92-94	3787**92-98-98
0	3680	3529B/71-81-85	3680*/80-86-88	3697*/77-86-88	3733*/78-86-88
			3696**83-88-90	3746**88-93-94	3787**91-98-98
-2	3680	3536B/71-82-85	3680*/80-86-88	3701*/77-86-88	3737*/78-86-88
			3702**84-88-90	3752**89-94-95	3787**91-98-98
-4	3680	3542B/72-82-85	3680*/79-86-88	3704*/78-86-88	3741*/78-86-88
			3708**85-89-91	3758**89-94-95	3787**90-98-98
-6	3680	3549B/72-82-85	3680*/78-86-88	3708*/78-86-88	3745*/79-86-88
			3715**85-90-91	3764**90-95-96	3787**89-98-98
-8	3680	3556B/73-82-85	3680*/78-86-88	3712*/78-86-88	3748*/79-86-88
			3721**86-90-92	3771**91-96-97	3787**89-98-98
-10	3681	3562B/74-82-85	3681*/77-86-88	3716*/78-86-88	3752*/79-86-88
			3727**87-91-92	3777**91-96-97	3787**88-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 480 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4447 M LONG WITH 60 M OF CLEARWAY AND 235 M OF STOPWAY

RUNWAY SLOPES ARE -0.35 PERCENT FOR TODA AND -0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30L	20	547	0	65	1346	0	140	1558	0
	155	3214	0	324	6146	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 62 FT RUNWAY 30R OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2702	2651*/60-60-62	2719*/60-62-64	2741*/61-62-64	2762*/61-62-64
		2688**70-75-75	2773**75-79-79	2800**75-79-79	2819**75-79-79
58A	2760	2705*/61-61-64	2773*/61-63-65	2796*/62-63-65	2818*/63-63-65
		2739**71-75-76	2826**76-81-81	2853**77-81-81	2877**76-80-80
56A	2828	2767*/63-63-66	2835*/63-65-67	2858*/63-65-67	2881*/64-65-67
		2798**71-76-76	2886**78-83-83	2915**78-83-83	2942**79-82-82
54	2897	2831*/65-65-68	2900*/64-67-69	2923*/65-67-69	2947*/65-67-69
		2859**72-76-77	2951**80-85-85	2980**81-85-85	3009**81-85-85
52	2975	2902*/67-67-70	2975*/67-70-72	2996*/66-70-72	3020*/67-70-72
		2929**73-76-77	3025**81-86-86	3055**83-87-87	3085**83-87-87
50	3052	2972*/69-69-72	3052*/70-72-74	3067*/68-72-74	3092*/68-72-74
		2994**73-76-78	3096**82-86-86	3128**85-90-90	3158**89-90-90
48	3131	3044*/71-71-74	3127*/74-74-76	3140*/69-74-76	3165*/70-74-76
		3058**73-75-77	3165**82-86-87	3199**85-90-90	3231**88-92-92
46	3208	3113B/71-73-76	3199*/76-76-78	3210*/71-76-78	3236*/71-76-78
		3114**71-74-77	3234**83-86-87	3269**86-90-90	3305**89-93-93
44	3284	3167B/70-74-77	3269*/78-78-80	3284*/73-78-80	3307*/73-78-80
			3296**82-85-86	3339**86-89-90	3377**89-93-93
42	3358	3219B/68-76-79	3338*/79-79-81	3358*/76-80-82	3375*/74-80-82
			3352**80-84-85	3398**84-87-88	3457**88-92-92
40	3434	3269B/67-77-80	3404B/79-81-83	3434*/78-81-83	3453*/75-81-83
			3407**79-83-85	3471**83-86-88	3521**87-90-91
38	3507	3314B/66-78-81	3474B/77-81-83	3507*/78-82-84	3519*/75-82-84
			3478**77-85-86	3527**81-86-88	3573**85-90-91
36	3575	3335B/66-78-82	3529B/76-82-84	3573B/80-83-85	3581*/76-83-86
			3530**76-84-87	3578**80-88-89	3625**84-89-90
34	3640	3357B/65-79-82	3577B/75-83-86	3623B/79-84-87	3640*/77-85-87
				3626**79-88-90	3675**84-90-92
32	3668	3382B/65-79-83	3600B/75-84-86	3647B/79-85-87	3668*/78-86-88
				3649**79-89-90	3698**84-91-92
30	3669	3408B/65-80-84	3606B/76-84-86	3652B/80-85-88	3669*/77-86-88
				3655**80-89-91	3704**84-91-92
28	3670	3461B/64-80-84	3611B/76-84-87	3657B/81-85-88	3672*/77-86-88
				3661**80-89-91	3710**85-91-93
26	3670	3468B/64-80-84	3616B/77-84-87	3662B/81-86-88	3675*/78-86-88
			3617**77-87-89	3666**81-90-91	3715**85-92-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4300 M LONG WITH 60 M OF CLEARWAY AND 126 M OF STOPWAY

RUNWAY SLOPES ARE -0.15 PERCENT FOR TODA AND -0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30R	3	127	0	13	219	0	15	231	0
	34	587	0	37	648	0	46	748	0
	55	926	0	56	935	0	72	1204	0
	75	1269	0	136	2640	0	215	3194	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 30R OMDB

*** FLAPS 05 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3671	3475B/65-80-84	3621B/77-84-87	3667B/82-86-88	3678*/78-86-88
			3623**77-87-89	3672**82-89-91	3721**86-93-94
22	3672	3483B/65-80-84	3626B/78-84-87	3672B/82-86-88	3682*/78-86-88
			3628**78-88-90	3678**82-90-92	3727**86-93-94
20	3673	3489B/66-80-84	3631B/79-85-87	3673*/82-86-88	3685*/78-86-88
			3634**78-88-90	3684**83-90-92	3733**87-93-94
18	3673	3494B/66-80-84	3637B/79-85-87	3673*/81-86-88	3688*/78-86-88
			3640**79-89-91	3689**83-90-92	3739**88-94-95
16	3674	3499B/67-81-84	3642B/80-85-87	3674*/81-86-88	3691*/78-86-88
			3646**80-89-91	3695**84-91-92	3745**88-94-95
14	3675	3505B/67-81-84	3647B/80-85-87	3675*/80-86-88	3695*/78-86-88
			3651**80-89-91	3701**84-91-93	3751**89-95-96
12	3676	3510B/68-81-84	3652B/81-85-88	3676*/80-86-88	3698*/78-86-88
			3657**81-89-91	3707**85-92-93	3757**89-96-97
10	3677	3516B/68-81-84	3657B/81-85-88	3677*/79-86-88	3701*/78-86-88
			3663**81-89-91	3713**86-93-94	3764**90-96-97
8	3678	3521B/69-81-84	3662B/82-85-88	3678*/79-86-88	3705*/78-86-88
			3669**82-90-92	3719**86-93-95	3770**91-97-98
6	3679	3526B/69-81-85	3667B/83-86-88	3679*/78-86-88	3708*/79-86-88
			3675**82-90-92	3725**87-94-95	3776**91-97-98
4	3679	3531B/70-82-85	3672B/83-86-88	3679*/78-86-88	3711*/79-86-88
			3681**83-91-93	3731**87-95-96	3783**92-97-98
2	3679	3537B/71-82-85	3676B/84-86-88	3682*/78-86-88	3714*/79-86-88
			3686**84-92-93	3737**88-95-96	3787**92-98-98
0	3680	3542B/71-82-85	3680*/84-86-88	3685*/78-86-88	3716*/79-86-88
			3692**84-92-94	3743**89-96-97	3787**92-98-98
-2	3680	3547B/72-82-85	3680*/84-86-88	3687*/78-86-88	3719*/79-86-88
			3698**85-93-94	3749**89-96-97	3787**91-98-98
-4	3680	3552B/72-82-85	3680*/83-86-88	3690*/78-86-88	3722*/79-86-88
		3553**72-85-88	3704**86-94-95	3755**90-96-97	3787**91-98-98
-6	3680	3556B/73-82-85	3680*/83-86-88	3693*/78-86-88	3724*/79-86-88
		3558**73-86-88	3710**86-94-95	3761**91-96-97	3787**90-98-98
-8	3680	3561B/74-82-85	3680*/82-86-88	3695*/78-86-88	3727*/79-86-88
		3564**74-86-89	3716**87-95-96	3767**91-97-98	3787**89-98-98
-10	3681	3566B/74-83-85	3681*/81-86-88	3698*/78-86-88	3729*/79-86-88
		3569**74-87-89	3722**88-95-96	3773**92-97-98	3787**89-98-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

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LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30R	3	127	0	13	219	0	15	231	0
	34	587	0	37	648	0	46	748	0
	55	926	0	56	935	0	72	1204	0
	75	1269	0	136	2640	0	215	3194	0

ENG-OUT PROCEDURE:

NONE



777-200LR

**TAKEOFF GROSS
WEIGHTS
FLAPS 15**

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	AIRCONDITIONING & QNH CORRECTION				I	8-Feb-17
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				06L	3 - 4	8-Feb-17
				06R	5 - 6	8-Feb-17
				15L	7 - 8	8-Feb-17
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2	LEIPZIG	LEJ	EDDP	08L	21 - 22	8-Feb-17
				08R	23 - 24	8-Feb-17
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				26R	27 - 28	8-Feb-17
3	BIRMINGHAM	BHX	EGBB	15	29 - 30	8-Feb-17
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4	MANCHESTER	MAN	EGCC	05L	33 - 34	23-Feb-17
				05R	35 - 36	23-Feb-17
				23L	37 - 38	23-Feb-17
				23L (A)	39 - 40	23-Feb-17
				23R	41 - 42	23-Feb-17
5	HEATHROW INTL LONDON	LHR	EGLL	09L	43 - 44	8-Feb-17
				09R	45 - 46	23-Feb-17
				27L	47 - 48	8-Feb-17
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6	KASTRUP INTL COPENHAGEN	CPH	EKCH	04L	51 - 52	8-Feb-17
				04LS	53 - 54	8-Feb-17
				04R	55 - 56	8-Feb-17
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7	GARDERMOEN OSLO	OSL	ENGM	01L	69 - 70	23-Feb-17
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9	EL PRAT BARCELONA	BCN	LEBL	02	93 - 94	8-Feb-17
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10	CHARLES-DE-GAULLE INTL PARIS	CDG	LFPG	08L	105 - 106	8-Feb-17
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				08R	109 - 110	8-Feb-17
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11	MALPENSA INTL MILAN	MXP	LIMC	17L	129 - 130	8-Feb-17
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12	KING FAHD INTL DAMMAM	DMM	OEDF	16L	137 - 138	8-Feb-17
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13	KING ABDULAZIZ INTL JEDDAH	JED	OEJN	16C	145 - 146	8-Feb-17
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15	KING KHALID INTL RIYADH	RUH	OERK	15L	165 - 166	8-Feb-17
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16	KARACHI	KHI	OPKC	07L	173 - 174	8-Feb-17
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17	LAHORE	LHE	OPLA	18L	185 - 186	8-Feb-17
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18	MULTAN	MUX	OPMT	18	197 - 198	8-Feb-17
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19	PESHAWAR	PEW	OPPS	17	201 - 202	8-Feb-17
				35	203 - 204	8-Feb-17
20	ISLAMABAD	ISB	OPRN	12	205 - 206	8-Feb-17
				30	207 - 208	8-Feb-17
				30A	209 - 210	8-Feb-17
21	SIALKOT	SKT	OPST	04	211 - 212	8-Feb-17
				22	213 - 214	8-Feb-17
22	NARITA TOKYO	NRT	RJAA	16L	215 - 216	8-Feb-17
				16R	217 - 218	8-Feb-17
				34L	219 - 220	8-Feb-17
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23	SEPANG INTL KUALA LAMPUR	KUL	WMKK	14L	223 - 224	8-Feb-17
				14LA2	225 - 226	8-Feb-17
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				32LC10	271 - 272	8-Feb-17
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				32RA10	283 - 284	8-Feb-17
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24	BEIJING CAPITAL BEIJING	PEK	ZBAA	01	295 - 296	8-Feb-17
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				18R	299 - 300	8-Feb-17
				19	301 - 302	8-Feb-17
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25	ISLAMABAD (NEW AIRPORT)	ISB	OPIS	10L	307 - 308	25-Apr-18
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777 TOGW

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				30L	319 - 320	15-Mar-19
				30R	321 - 322	15-Mar-19



777-240LR TAKEOFF GROSS WEIGHT CORRECTIONS

FLAPS 15

1. AIR CONDITIONING PACKS

TOGW analysis is based on AC Packs OFF. If one or more AC Packs using Engine Bleed are kept ON for takeoff, corresponding limits are reduced by the following:

AC PACKS ON	
CLIMB LIMIT	FIELD LIMIT
1700KGS	500KGS

2. QNH CORRECTIONS

TOGW analysis is based on Field Elevation. If the QNH for the departure field is 1013mb, the analysis holds good. If QNH is above 1013mb, the Performance Limited TOGW (Box A) may be increased. If QNH is below 1013mb, the Performance Limited TOGW (Box A) must be decreased to account for increase in pressure altitude above field elevation.

Addition or Deduction applicable for each 'mb' above or below 1013 is as under:

FOR EACH 'mb' ABOVE 1013 (QNH)	
FIELD LENGTH LIMIT FLAPS 15	ZERO
CLIMB LIMIT FLAPS 15	+97KG
IMPROVED CLIMB FLAPS 15	+97KG

ii)

FOR EACH 'mb' BELOW 1013 (QNH)	
FIELD LENGTH LIMIT FLAPS 15	-573KG
CLIMB LIMIT FLAPS 15	-374KG
IMPROVED CLIMB FLAPS 15	-559KG

INTENTIONALLY LEFT BLANK

ELEVATION 569 FT

RUNWAY 05

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2513*/47-47-52	2594*/47-48-52	2622*/47-48-52	2649*/48-48-52
			2617**55-58-60	2647**59-62-64	2671**62-66-68
58A	2600	2561*/49-49-53	2645*/49-50-54	2674*/49-50-54	2701*/49-50-54
			2666**56-58-61	2697**59-63-65	2721**63-67-69
56A	2666	2616*/50-50-55	2705*/50-52-56	2734*/51-52-56	2762*/51-52-56
			2724**57-59-62	2755**60-63-66	2780**64-67-69
54A	2731	2671*/52-52-56	2763*/52-54-58	2793*/52-54-58	2823*/53-54-58
			2781**58-60-63	2812**61-64-67	2838**65-68-70
52	2800	2730*/53-53-58	2825*/54-56-60	2857*/54-56-60	2887*/54-56-60
			2842**59-61-64	2875**62-65-68	2902**66-69-71
50	2873	2781*/53-55-59	2887*/55-58-62	2920*/56-58-62	2952*/56-58-62
			2905**60-61-65	2939**63-66-69	2968**67-70-72
48	2951	2833*/53-56-61	2953*/56-60-64	2987*/57-60-64	3019*/58-60-64
			2973**61-62-66	3008**65-67-70	3037**68-71-73
46	3025	2880*/53-57-62	3025*/59-62-66	3049*/58-62-66	3083*/59-62-66
			3035**62-63-67	3070**65-67-71	3101**68-71-74
44	3096	2925*/54-58-64	3091*/62-63-68	3109*/60-63-68	3145*/60-63-68
				3130**65-67-71	3162**68-71-75
42	3165	2968*/54-59-65	3142*/62-65-69	3167*/61-65-70	3203*/61-65-70
				3186**65-68-72	3219**68-72-75
40	3233	3012*/54-60-66	3190*/62-66-70	3233*/63-67-72	3262*/63-67-72
				3243**65-68-72	3277**69-72-76
38	3296	3051*/54-61-67	3233*/63-67-72	3294*/65-69-73	3317*/64-69-73
					3333**69-72-76
36	3364	3092*/55-62-68	3277*/63-68-73	3342*/66-70-74	3372*/65-70-75
					3389**69-73-77
34	3427	3127*/55-63-69	3318*/63-69-74	3384*/66-70-75	3427*/65-71-76
					3453**69-73-77
32	3493	3161*/55-64-70	3357*/63-69-75	3435*/66-71-76	3493*/65-71-76
					3511**69-73-77
30	3496	3170*/55-64-71	3367*/64-70-75	3451*/66-71-76	3499*/65-71-76
					3518**69-74-78
28	3497	3178*/56-64-71	3375*/64-70-75	3466*/66-71-76	3505*/65-71-76
					3523**69-74-78
26	3497	3186*/56-64-71	3384*/64-70-75	3480*/67-71-76	3511*/65-71-76
					3529**70-75-79
24	3498	3194*/56-65-71	3393*/65-70-76	3491*/67-71-76	3516*/65-71-76
					3534**70-75-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3284 M LONG WITH 201 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05	5	201	0	18	221	0	25	282	0
	28	312	0	33	419	0	35	471	0
	36	501	0	50	738	0	243	17095	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 05

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3498	3202*/57-65-71	3401*/65-71-76	3498*/67-71-76	3522*/66-71-76 3539**71-76-80
20	3499	3210*/57-65-71	3410*/65-71-76	3499*/67-72-76 3504**68-72-77	3527*/66-72-76 3545**71-76-80
18	3499	3218*/57-65-72	3425*/66-71-76	3499*/66-72-76 3510**68-73-77	3532*/66-72-76 3550**72-77-80
16	3500	3226*/58-66-72	3440*/66-71-76	3500*/66-72-76 3515**69-73-77	3536*/66-72-76 3555**72-77-81
14	3500	3235*/58-66-72	3454*/66-71-76	3500*/65-72-76 3521**69-74-78	3541*/66-72-76 3561**73-78-81
12	3501	3243*/58-66-72	3469*/66-71-76	3505*/65-72-76 3527**70-74-78	3546*/66-72-76 3567**73-78-82
10	3502	3251*/59-66-72	3483*/67-71-76	3510*/65-72-76 3533**70-75-79	3551*/66-72-76 3572**74-79-82
8	3502	3260*/59-67-73	3491*/67-71-76	3515*/65-72-76 3538**70-75-79	3556*/66-72-76 3578**74-79-83
6	3503	3268*/59-67-73	3499*/67-71-76	3520*/65-72-76 3544**71-76-80	3561*/66-72-76 3583**75-80-83
4	3503	3277*/60-67-73	3503*/68-72-76 3505**68-72-76	3524*/66-72-76 3549**71-76-80	3565*/66-72-76 3589**75-81-84
2	3503	3285*/60-67-73	3503*/67-72-76 3511**68-72-77	3529*/66-72-76 3555**72-77-81	3570*/66-72-76 3594**76-81-84
0	3503	3294*/60-68-73	3503*/66-72-76 3517**69-73-77	3534*/66-72-76 3560**72-77-81	3575*/66-72-76 3600**76-82-85
-2	3503	3303*/61-68-74	3503*/66-72-76 3522**69-73-78	3538*/66-72-76 3566**73-78-82	3579*/67-72-76 3605**77-82-85
-4	3504	3312*/61-68-74	3504*/65-72-76 3528**70-74-78	3543*/66-72-76 3571**74-79-82	3584*/67-72-76 3611**77-83-86
-6	3504	3320*/62-68-74	3506*/65-72-76 3534**70-75-79	3548*/66-72-76 3577**74-79-83	3588*/67-72-76 3616**78-84-86
-8	3504	3329*/62-69-74	3511*/65-72-76 3539**71-75-79	3552*/66-72-76 3582**75-80-83	3593*/67-72-76 3622**78-84-87
-10	3504	3338*/62-69-74	3515*/65-72-76 3545**71-76-80	3557*/66-72-76 3588**75-80-84	3597*/67-72-76 3627**79-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3284 M LONG WITH 201 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M			
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05	5	201	0	18	221	0	25	282	0
	28	312	0	33	419	0	35	471	0
	36	501	0	50	738	0	243	17095	0

ENG-OUT PROCEDURE:
 NONE

ELEVATION 569 FT

RUNWAY 06L

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2389*/43-43-48	2478*/46-46-51	2506*/47-47-51	2534*/48-48-52
		2393**44-45-50	2495**52-54-58	2529**53-56-59	2562**56-59-62
58A	2600	2437*/44-44-50	2528*/48-48-52	2557*/49-49-53	2585*/49-49-54
		2439**45-45-50	2543**53-56-59	2578**55-58-61	2611**56-59-62
56A	2666	2491*/46-46-51	2585*/49-49-54	2615*/50-50-55	2645*/51-51-55
			2599**54-56-60	2634**56-59-62	2668**58-60-63
54A	2731	2542*/46-47-53	2643*/51-51-55	2674*/52-52-56	2704*/53-53-57
			2654**55-57-61	2690**57-59-62	2724**59-62-65
52	2800	2597*/47-49-54	2704*/52-52-57	2736*/53-53-58	2767*/54-54-59
			2713**56-58-62	2749**57-59-63	2784**60-63-66
50	2873	2653*/48-50-56	2767*/54-54-59	2800*/55-55-60	2832*/56-56-61
			2775**57-59-63	2811**59-61-65	2847**61-63-67
48	2951	2711*/48-52-58	2835*/56-56-61	2869*/57-57-62	2902*/58-58-63
			2840**57-58-63	2877**60-62-66	2914**62-64-68
46	3025	2762*/48-53-59	2898*/57-58-63	2934*/59-59-64	2968*/60-60-65
				2939**60-61-66	2977**63-65-69
44	3096	2811*/49-54-61	2952*/57-59-64	2995*/60-60-65	3030*/61-61-66
					3037**63-64-69
42	3165	2855*/49-56-62	3004*/57-60-66	3050*/61-62-67	3091*/63-63-68
					3093**64-64-69
40	3233	2897*/49-57-63	3055*/58-62-67	3103*/61-63-68	3149*/64-64-69
38	3296	2934*/49-57-64	3100*/58-63-68	3150*/61-64-70	3198*/64-66-71
36	3364	2973*/50-58-65	3148*/58-64-70	3199*/61-65-71	3249*/64-67-72
34	3427	3007*/50-59-66	3189*/58-65-71	3242*/61-66-72	3294*/64-68-73
32	3493	3039*/50-60-67	3230*/58-66-72	3284*/61-67-73	3340*/65-69-74
30	3496	3048*/50-60-67	3238*/59-66-72	3292*/62-68-73	3348*/65-69-75
28	3497	3056*/51-60-68	3244*/59-66-72	3299*/62-68-74	3354*/65-69-75
26	3497	3063*/51-61-68	3250*/60-66-72	3305*/63-68-74	3360*/66-69-75
24	3498	3071*/51-61-68	3256*/60-67-73	3311*/63-68-74	3366*/66-70-75
22	3498	3079*/52-61-68	3262*/60-67-73	3317*/63-68-74	3372*/67-70-75
20	3499	3087*/52-61-68	3268*/61-67-73	3323*/64-68-74	3378*/67-70-75
18	3499	3095*/52-62-69	3274*/61-67-73	3330*/64-69-74	3384*/67-70-75
16	3500	3103*/53-62-69	3280*/62-67-73	3336*/65-69-74	3390*/68-70-75
14	3500	3111*/53-62-69	3286*/62-67-73	3342*/65-69-74	3396*/68-70-76
12	3501	3120*/53-62-69	3293*/62-68-73	3348*/66-69-75	3402*/69-71-76
10	3502	3128*/54-63-69	3299*/63-68-74	3354*/66-69-75	3407*/69-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 690 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2956 M LONG WITH 240 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.18 PERCENT FOR TODA AND 0.18 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
06L	1	240	0	10	277	0	18	290	0
	21	326	0	24	361	0	67	1120	0
	75	1135	0	96	1484	0	111	1487	0
	122	1793	0	137	2159	0	435	18917	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 06L

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
8	3502	3136*/54-63-70	3306*/63-68-74	3361*/66-69-75	3414*/70-71-76
6	3503	3145*/54-63-70	3312*/64-68-74	3367*/67-70-75	3423*/70-71-76
4	3503	3153*/55-63-70	3318*/64-68-74	3372*/67-70-75	3431*/71-71-76
2	3503	3159*/55-64-70	3324*/65-68-74	3378*/68-70-75	3437*/71-71-76
					3440**71-72-77
0	3503	3165*/55-64-70	3330*/65-69-74	3384*/68-70-75	3442*/71-71-76
					3448**71-73-77
-2	3503	3171*/56-64-71	3336*/66-69-74	3389*/69-70-75	3446*/71-71-76
					3456**72-73-78
-4	3504	3178*/56-64-71	3342*/66-69-74	3395*/69-70-76	3451*/71-71-76
					3464**72-74-78
-6	3504	3184*/57-64-71	3348*/66-69-75	3400*/70-71-76	3455*/71-71-76
					3472**73-74-79
-8	3504	3190*/57-65-71	3354*/67-69-75	3405*/70-71-76	3459*/71-71-76
					3480**73-75-79
-10	3504	3196*/58-65-71	3359*/67-69-75	3409*/71-71-76	3464*/71-71-76
				3411**71-72-77	3487**74-75-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 690 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2956 M LONG WITH 240 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.18 PERCENT FOR TODA AND 0.18 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
06L	1	240	0	10	277	0	18	290	0
	21	326	0	24	361	0	67	1120	0
	75	1135	0	96	1484	0	111	1487	0
	122	1793	0	137	2159	0	435	18917	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 06R

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2387*/38-43-48	2494*/47-47-51	2521*/48-48-52	2547*/48-48-52
			2502**48-50-53	2539**51-53-56	2576**54-56-59
58A	2600	2429*/39-44-49	2544*/48-48-52	2573*/49-49-53	2600*/50-50-54
			2549**48-50-54	2587**52-53-57	2625**55-56-59
56A	2666	2473*/40-45-51	2601*/49-50-54	2632*/51-51-55	2660*/52-52-56
			2603**49-51-56	2642**52-54-58	2681**56-57-60
54A	2731	2517*/41-47-52	2656*/50-51-56	2691*/52-52-57	2720*/53-53-58
				2697**53-54-59	2737**56-58-61
52	2800	2564*/41-48-53	2714*/51-53-58	2753*/54-54-59	2784*/55-55-59
				2756**54-56-60	2796**57-59-62
50	2873	2612*/42-49-55	2774*/51-54-59	2815*/55-56-60	2850*/57-57-61
					2856**57-59-63
48	2951	2662*/43-50-56	2835*/52-56-61	2878*/55-57-62	2918*/58-59-63
46	3025	2708*/44-51-58	2886*/52-57-62	2935*/55-59-64	2978*/58-60-65
44	3096	2751*/45-53-59	2930*/52-58-64	2990*/55-60-65	3034*/58-62-66
42	3165	2791*/45-53-60	2973*/53-59-65	3034*/55-61-67	3088*/58-63-68
40	3233	2832*/45-54-62	3016*/53-60-66	3079*/56-62-68	3142*/59-64-69
38	3296	2868*/45-55-63	3055*/54-61-67	3118*/56-63-69	3183*/59-65-70
36	3364	2906*/46-56-64	3095*/54-62-68	3160*/57-64-70	3226*/59-66-72
34	3427	2939*/46-57-65	3131*/54-63-69	3196*/57-65-71	3263*/60-67-73
32	3493	2970*/46-58-66	3164*/54-64-70	3231*/57-66-72	3300*/60-68-74
30	3496	2979*/46-58-66	3174*/55-64-71	3241*/58-66-72	3310*/60-68-74
28	3497	2987*/47-58-66	3183*/55-64-71	3250*/58-66-72	3320*/61-68-74
26	3497	2995*/47-59-66	3191*/55-65-71	3258*/58-67-73	3329*/61-69-74
24	3498	3002*/47-59-66	3200*/56-65-71	3267*/59-67-73	3338*/61-69-74
22	3498	3010*/48-59-67	3208*/56-65-71	3276*/59-67-73	3348*/62-69-75
20	3499	3018*/48-59-67	3217*/56-65-72	3285*/59-67-73	3357*/62-69-75
18	3499	3026*/48-60-67	3225*/57-66-72	3294*/60-68-73	3367*/62-70-75
16	3500	3034*/49-60-67	3234*/57-66-72	3303*/60-68-74	3376*/63-70-75
14	3500	3042*/49-60-67	3243*/57-66-72	3313*/60-68-74	3385*/63-70-75
12	3501	3051*/49-60-68	3252*/58-66-72	3322*/61-68-74	3393*/63-70-76
10	3502	3059*/50-61-68	3261*/58-67-73	3332*/61-69-74	3399*/64-71-76
8	3502	3067*/50-61-68	3270*/58-67-73	3342*/61-69-74	3405*/64-71-76
6	3503	3076*/50-61-68	3279*/59-67-73	3352*/62-69-75	3411*/65-71-76
4	3503	3084*/51-61-68	3288*/59-68-73	3361*/62-70-75	3421*/65-71-76
2	3503	3093*/51-62-69	3298*/60-68-74	3369*/62-70-75	3430*/66-71-76
0	3503	3101*/51-62-69	3307*/60-68-74	3375*/63-70-75	3438*/66-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.24 PERCENT FOR TODA AND 0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
06R	8	367	0	18	396	0	22	457	0
	26	527	0	112	1814	0	120	1987	0
	140	2481	0	434	19251	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 06R CYYZ

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-2	3503	3110*/52-62-69	3317*/60-68-74	3381*/63-70-75	3446*/66-71-76
-4	3504	3118*/52-62-69	3327*/61-69-74	3387*/64-70-75	3454*/67-71-76
-6	3504	3127*/52-63-69	3336*/61-69-74	3393*/64-70-76	3461*/67-71-76
					3462**67-72-77
-8	3504	3136*/53-63-70	3345*/61-69-75	3399*/65-71-76	3468*/68-71-76
					3470**68-72-77
-10	3504	3145*/53-63-70	3351*/62-69-75	3404*/65-71-76	3475*/68-71-76
					3478**68-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.24 PERCENT FOR TODA AND 0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
06R	8	367	0	18	396	0	22	457	0
	26	527	0	112	1814	0	120	1987	0
	140	2481	0	434	19251	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 15L

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2495*/47-47-51	2566*/47-48-52	2590*/47-48-52	2612*/48-48-52
		2516**52-55-58	2612**58-62-64	2642**60-64-66	2672**62-66-68
58A	2600	2546*/48-48-53	2619*/48-50-54	2643*/49-50-54	2666*/49-50-54
		2564**52-55-59	2661**59-63-66	2692**61-65-67	2723**63-67-69
56A	2666	2604*/50-50-54	2681*/50-52-56	2705*/51-52-56	2729*/51-52-56
		2620**53-56-59	2718**60-63-66	2750**63-67-69	2781**64-68-70
54A	2731	2663*/51-51-56	2741*/52-54-58	2767*/52-54-58	2791*/53-54-58
		2674**53-56-59	2776**61-65-67	2808**63-67-69	2841**66-70-72
52	2800	2725*/53-53-58	2806*/53-56-60	2832*/54-56-60	2857*/54-56-60
		2731**53-55-59	2838**62-66-69	2871**65-68-71	2904**67-71-73
50	2873	2788*/53-55-60	2873*/55-58-62	2898*/55-58-62	2925*/56-58-62
			2901**63-65-69	2937**66-69-72	2971**68-71-74
48	2951	2849*/53-56-61	2951*/59-60-64	2969*/57-60-64	2996*/57-60-64
			2967**63-65-68	3004**66-69-72	3040**69-72-75
46	3025	2906*/53-58-63	3019*/61-61-66	3035*/58-62-66	3064*/59-62-66
			3028**63-64-68	3068**66-68-72	3106**69-72-75
44	3096	2959*/53-59-64	3083*/63-63-68	3099*/59-63-68	3128*/60-63-68
			3086**63-65-69	3127**66-68-71	3167**69-72-75
42	3165	3011*/54-61-66	3142*/63-65-69	3165*/62-65-70	3190*/61-65-70
				3184**66-68-72	3224**69-72-76
40	3233	3062*/54-62-67	3198*/63-66-71	3233*/65-67-72	3252*/63-67-72
				3241**66-69-73	3283**69-73-76
38	3296	3108*/54-63-69	3248*/63-67-72	3293*/66-68-73	3310*/64-69-73
					3338**69-73-77
36	3364	3156*/54-64-70	3301*/63-68-73	3349*/66-70-74	3370*/65-70-75
					3395**70-73-77
34	3427	3198*/54-65-71	3348*/63-69-74	3397*/66-71-76	3429*/65-71-76
					3462**69-74-78
32	3493	3239*/54-66-72	3395*/63-70-76	3462*/66-71-76	3494*/65-71-76
					3517**69-74-78
30	3496	3246*/54-66-72	3403*/64-71-76	3472*/66-71-76	3500*/65-71-76
					3524**70-74-78
28	3497	3252*/55-66-72	3408*/64-71-76	3479*/67-71-76	3504*/65-71-76
					3530**70-75-79
26	3497	3258*/55-67-73	3416*/64-71-76	3486*/67-71-76	3507*/65-71-76
					3535**71-75-79
24	3498	3264*/55-67-73	3425*/65-71-76	3491*/68-71-76	3510*/65-71-76
					3540**71-76-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3318 M LONG WITH 350 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15L	28	879	0	44	1047	0	46	1100	0
	62	1173	0	65	1199	0	79	1504	0
	112	1828	0	123	1975	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 15L

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3498	3269*/56-67-73	3433*/65-71-76	3497*/68-71-76	3514*/65-71-76 3545**71-76-80
20	3499	3275*/56-67-73	3441*/66-71-76	3499*/68-72-76 3503**69-74-78	3517*/65-72-76 3551**72-77-81
18	3499	3281*/56-67-73	3449*/66-71-76	3499*/67-72-76 3509**69-74-78	3521*/66-72-76 3556**72-77-81
16	3500	3287*/57-67-73	3457*/66-71-76	3500*/67-72-76 3514**69-74-78	3524*/66-72-76 3562**73-78-82
14	3500	3293*/57-68-73	3464*/67-71-76	3500*/66-72-76 3519**70-74-78	3527*/66-72-76 3567**73-78-82
12	3501	3299*/58-68-74	3472*/67-71-76	3501*/66-72-76 3525**70-74-78	3531*/66-72-76 3573**74-79-82
10	3502	3305*/58-68-74	3479*/68-71-76 3480**68-73-77	3502*/65-72-76 3531**71-75-79	3534*/66-72-76 3579**74-80-83
8	3502	3311*/59-68-74	3486*/68-71-76 3488**68-73-77	3504*/65-72-76 3536**71-75-79	3538*/66-72-76 3584**75-80-83
6	3503	3317*/59-68-74	3491*/68-71-76 3493**68-73-78	3507*/65-72-76 3542**72-76-80	3541*/66-72-76 3590**75-81-84
4	3503	3323*/59-68-74	3496*/69-71-76 3499**69-73-78	3510*/65-72-76 3547**72-76-80	3544*/66-72-76 3595**76-81-84
2	3503	3328*/60-69-74	3501*/69-72-76 3504**69-74-78	3513*/65-72-76 3553**73-77-81	3548*/66-72-76 3601**76-82-85
0	3503	3334*/60-69-74	3503*/69-72-76 3509**70-74-78	3517*/66-72-76 3559**73-78-81	3551*/66-72-76 3606**77-82-85
-2	3503	3340*/61-69-74	3503*/69-72-76 3515**70-75-79	3520*/66-72-76 3564**74-78-82	3554*/66-72-76 3612**77-83-86
-4	3504	3345*/61-69-75	3504*/68-72-76 3520**71-75-79	3523*/66-72-76 3570**74-79-82	3557*/66-72-76 3617**78-84-86
-6	3504	3351*/62-69-75	3504*/68-72-76 3525**71-76-80	3526*/66-72-76 3575**75-79-82	3560*/67-72-76 3623**78-84-87
-8	3504	3357*/62-69-75	3504*/67-72-76 3531**72-76-80	3529*/66-72-76 3581**75-80-83	3562*/67-72-76 3628**79-85-88
-10	3504	3362*/63-70-75	3504*/67-72-76 3536**72-77-81	3532*/66-72-76 3586**76-80-84	3565*/67-72-76 3633**80-85-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3318 M LONG WITH 350 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS	FROM LO-FT/M
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET
15L	28	879	0	44	1047	0
	62	1173	0	65	1199	0
	112	1828	0	123	1975	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 15R

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2416*/39-44-49	2535*/48-48-52	2559*/47-48-52	2585*/48-48-52
			2538**48-50-54	2576**51-53-56	2612**55-57-60
58A	2600	2456*/40-45-50	2584*/49-49-54	2610*/49-50-54	2637*/49-50-54
				2624**52-53-57	2661**55-58-61
56A	2666	2500*/40-46-51	2639*/50-51-55	2669*/51-52-56	2697*/51-52-56
				2680**53-54-58	2718**56-58-61
54A	2731	2543*/41-47-53	2693*/50-52-57	2731*/53-54-58	2757*/53-54-58
				2734**54-55-59	2774**57-59-62
52	2800	2589*/42-49-54	2750*/51-54-58	2793*/54-55-60	2821*/54-56-60
					2833**57-59-63
50	2873	2637*/43-50-56	2808*/52-55-60	2852*/55-57-61	2886*/56-58-62
					2893**58-60-64
48	2951	2687*/44-51-57	2866*/52-57-62	2912*/55-58-63	2954*/58-60-64
					2956**58-60-64
46	3025	2732*/45-52-58	2913*/52-58-63	2968*/55-60-65	3014*/58-61-66
44	3096	2772*/45-53-60	2956*/53-59-64	3019*/55-61-66	3069*/58-63-67
42	3165	2812*/45-54-61	2998*/53-60-66	3062*/56-62-67	3121*/59-64-69
40	3233	2852*/46-55-62	3041*/54-61-67	3106*/56-63-68	3171*/59-65-70
38	3296	2888*/46-56-63	3079*/54-62-68	3145*/57-64-70	3212*/59-66-71
36	3364	2926*/46-57-64	3119*/54-63-69	3186*/57-65-71	3254*/60-67-72
34	3427	2958*/46-58-65	3154*/55-64-70	3222*/57-66-72	3291*/60-68-73
32	3493	2989*/47-58-66	3188*/55-65-71	3257*/58-67-73	3329*/60-69-74
30	3496	2998*/47-59-66	3198*/55-65-71	3267*/58-67-73	3339*/61-69-74
28	3497	3006*/47-59-66	3206*/55-65-71	3276*/58-67-73	3349*/61-69-75
26	3497	3014*/47-59-67	3215*/56-65-72	3285*/59-67-73	3359*/61-69-75
24	3498	3022*/48-59-67	3224*/56-66-72	3295*/59-68-73	3368*/62-70-75
22	3498	3031*/48-60-67	3233*/56-66-72	3304*/59-68-74	3378*/62-70-75
20	3499	3039*/48-60-67	3242*/57-66-72	3314*/60-68-74	3388*/62-70-75
18	3499	3047*/49-60-67	3251*/57-66-72	3324*/60-68-74	3398*/63-71-76
16	3500	3056*/49-60-68	3260*/57-67-73	3333*/60-69-74	3408*/63-71-76
14	3500	3064*/49-61-68	3270*/58-67-73	3343*/61-69-75	3424*/63-71-76
12	3501	3072*/50-61-68	3279*/58-67-73	3353*/61-69-75	3441*/63-71-76
10	3502	3081*/50-61-68	3289*/58-68-73	3363*/61-70-75	3452*/64-71-76
8	3502	3090*/50-61-69	3299*/59-68-74	3373*/62-70-75	3462*/64-71-76
6	3503	3099*/51-62-69	3309*/59-68-74	3384*/62-70-75	3472*/64-71-76
4	3503	3107*/51-62-69	3319*/59-68-74	3394*/62-70-76	3481*/65-71-76
2	3503	3116*/51-62-69	3329*/60-69-74	3404*/63-71-76	3489*/65-71-76
0	3503	3125*/51-63-69	3339*/60-69-74	3415*/63-71-76	3495*/66-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2770 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15R	12	325	0	31	991	0	41	1054	0
	87	1552	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 15R CYYZ

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-2	3503	3134*/52-63-70	3349*/60-69-75	3426*/63-71-76	3501*/66-72-76
-4	3504	3143*/52-63-70	3359*/61-69-75	3436*/64-71-76	3507*/67-72-76
					3507**67-72-77
-6	3504	3152*/53-63-70	3369*/61-70-75	3446*/64-71-76	3510*/67-72-76
					3513**67-73-77
-8	3504	3161*/53-64-70	3379*/62-70-75	3456*/64-71-76	3514*/67-72-76
					3519**68-73-77
-10	3504	3170*/53-64-71	3389*/62-70-75	3465*/65-71-76	3518*/67-72-76
					3525**68-74-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2770 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15R	12	325	0	31	991	0	41	1054	0
	87	1552	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 23

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2485*/46-46-51	2546*/47-48-52	2567*/47-48-52	2586*/48-48-52
		2520**50-54-57	2622**60-64-66	2652**63-67-69	2680**66-70-71
58A	2600	2538*/48-48-52	2601*/49-50-54	2622*/49-50-54	2642*/49-50-54
		2569**51-54-58	2672**60-64-66	2702**63-68-69	2732**66-71-72
56A	2666	2599*/50-50-54	2666*/51-52-56	2685*/51-52-56	2706*/51-52-56
		2624**52-55-59	2728**61-65-67	2760**64-68-70	2791**67-72-73
54A	2731	2659*/51-51-56	2728*/54-54-58	2748*/52-54-58	2769*/53-54-58
		2678**52-55-59	2783**61-65-68	2816**64-69-71	2848**67-71-73
52	2800	2723*/53-53-58	2795*/55-55-60	2814*/54-56-60	2836*/55-56-60
		2734**52-56-60	2842**61-66-68	2876**64-69-71	2911**68-72-74
50	2873	2787*/53-55-60	2864*/57-57-62	2883*/56-58-62	2905*/56-58-62
		2792**52-56-61	2903**62-66-69	2939**65-69-72	2974**68-73-75
48	2951	2854*/52-57-61	2938*/59-59-64	2956*/57-60-64	2979*/58-60-64
			2967**62-66-70	3004**65-70-73	3040**68-73-75
46	3025	2910*/52-58-63	3008*/61-61-66	3025*/58-62-66	3049*/59-62-66
			3029**62-67-70	3067**65-70-73	3105**68-73-76
44	3096	2959*/53-59-64	3074*/62-63-67	3096*/62-63-68	3116*/60-63-68
			3087**62-67-71	3127**65-70-74	3166**68-74-77
42	3165	3005*/53-60-66	3135*/62-64-69	3165*/65-65-70	3180*/62-65-70
			3144**62-67-71	3184**65-71-74	3224**68-74-77
40	3233	3052*/53-61-67	3194*/62-66-71	3228*/66-67-71	3244*/63-67-72
			3200**62-68-72	3241**65-71-75	3283**68-74-78
38	3296	3094*/53-62-68	3249*/62-67-72	3284*/66-68-73	3304*/64-69-73
			3251**62-68-73	3295**65-71-76	3339**69-75-78
36	3364	3138*/53-64-69	3306*/62-69-73	3343*/66-70-74	3367*/65-70-75
				3351**65-72-76	3396**69-75-79
34	3427	3176*/54-64-71	3353*/62-70-75	3396*/66-71-75	3428*/66-71-76
				3401**65-72-77	3464**68-75-79
32	3493	3211*/54-65-71	3396*/62-70-76	3461*/65-71-76	3493*/65-71-76
				3468**65-72-77	3519**68-76-80
30	3496	3220*/54-66-72	3405*/63-71-76	3468*/66-71-76	3498*/65-71-76
				3478**65-73-77	3526**69-76-80
28	3497	3228*/54-66-72	3413*/63-71-76	3473*/66-71-76	3500*/65-71-76
				3485**66-73-78	3531**69-77-80
26	3497	3236*/55-66-72	3424*/63-71-76	3477*/67-71-76	3502*/66-71-76
				3490**66-74-78	3536**70-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1210 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3284 M LONG WITH 405 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23	17	413	0	29	599	0	34	639	0
	45	802	0	64	1135	0	131	2260	0
	148	2600	0	154	2702	0	227	3909	0
	762	16483	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 23

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3498	3243*/55-66-72	3432*/64-71-76	3482*/67-71-76	3504*/66-71-76
				3495**67-74-78	3542**70-78-81
22	3498	3250*/55-66-72	3437*/64-71-76	3486*/67-71-76	3507*/66-71-76
			3440**64-71-76	3500**67-75-79	3547**71-78-82
20	3499	3258*/56-67-73	3442*/65-71-76	3489*/68-71-76	3509*/66-72-76
			3447**65-72-77	3505**68-75-79	3552**71-79-82
18	3499	3265*/56-67-73	3446*/65-71-76	3493*/68-71-76	3511*/66-72-76
			3454**65-72-77	3511**68-76-80	3557**71-79-83
16	3500	3272*/56-67-73	3451*/66-71-76	3496*/69-71-76	3513*/66-72-76
			3462**65-73-77	3516**69-76-80	3562**72-80-83
14	3500	3280*/57-67-73	3456*/66-71-76	3499*/70-71-76	3515*/66-72-76
			3469**66-73-78	3521**69-77-81	3568**72-80-84
12	3501	3288*/57-67-73	3461*/67-71-76	3501*/69-72-76	3518*/66-72-76
			3477**66-74-78	3527**69-77-81	3573**73-81-84
10	3502	3295*/57-68-73	3466*/67-71-76	3502*/69-72-76	3520*/66-72-76
			3484**67-74-79	3532**70-78-82	3579**73-81-85
8	3502	3303*/58-68-74	3470*/67-71-76	3502*/68-72-76	3523*/66-72-76
			3490**67-75-79	3537**70-79-82	3584**74-82-85
6	3503	3311*/58-68-74	3474*/68-71-76	3503*/68-72-76	3525*/66-72-76
			3495**67-76-80	3543**71-79-83	3590**74-83-86
4	3503	3319*/59-68-74	3478*/69-71-76	3503*/67-72-76	3527*/66-72-76
			3501**68-76-80	3548**71-80-83	3595**75-83-86
2	3503	3327*/59-69-74	3482*/69-71-76	3503*/67-72-76	3529*/67-72-76
			3506**68-77-81	3553**72-80-84	3600**75-84-87
0	3503	3334*/59-69-74	3485*/70-71-76	3503*/66-72-76	3531*/67-72-76
			3511**69-77-81	3558**72-81-84	3605**76-84-87
-2	3503	3342*/60-69-74	3488*/70-71-76	3504*/66-72-76	3532*/67-72-76
			3516**69-78-82	3563**73-81-85	3610**77-85-88
-4	3504	3349*/60-69-75	3491*/71-71-76	3506*/66-72-76	3534*/67-72-76
			3521**70-78-82	3569**74-82-85	3615**77-86-88
-6	3504	3356*/61-69-75	3493*/71-71-76	3508*/66-72-76	3536*/67-72-76
			3526**70-79-83	3574**74-83-86	3620**78-86-89
-8	3504	3362*/61-70-75	3495*/71-71-76	3509*/66-72-76	3538*/67-72-76
			3531**71-80-83	3579**75-83-86	3626**78-87-89
-10	3504	3367*/62-70-75	3496*/71-71-76	3511*/66-72-76	3539*/67-72-76
			3536**72-80-84	3584**75-84-87	3631**79-87-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1220 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3284 M LONG WITH 405 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23	17	413	0	29	599	0	34	639	0
	45	802	0	64	1135	0	131	2260	0
	148	2600	0	154	2702	0	227	3909	0
	762	16483	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 24L

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2398*/38-43-48	2484*/46-46-51	2507*/47-47-51	2530*/48-48-52
			2508**48-53-57	2543**51-57-60	2578**54-60-62
58A	2600	2441*/38-45-50	2537*/48-48-52	2561*/49-49-53	2584*/49-49-54
			2556**48-54-57	2592**51-57-60	2628**55-60-62
56A	2666	2487*/39-46-51	2597*/49-50-54	2622*/50-50-55	2646*/51-51-55
			2611**49-55-58	2648**52-58-61	2684**55-61-64
54A	2731	2533*/40-47-52	2654*/50-51-56	2682*/52-52-56	2707*/53-53-57
			2665**50-55-59	2704**53-58-62	2740**56-62-65
52	2800	2582*/41-48-54	2716*/50-53-58	2746*/54-54-58	2772*/55-55-59
			2724**50-56-60	2762**54-59-63	2799**57-63-66
50	2873	2633*/42-50-55	2779*/51-55-59	2812*/54-56-60	2840*/56-56-61
			2785**51-57-61	2822**54-60-64	2860**57-63-67
48	2951	2686*/42-51-57	2845*/51-56-61	2880*/54-57-62	2912*/58-58-63
			2847**51-57-62	2886**54-60-64	2924**57-63-67
46	3025	2735*/43-52-59	2900*/51-58-63	2942*/54-59-64	2976*/58-60-65
				2945**54-60-65	2984**58-64-68
44	3096	2778*/43-53-60	2947*/52-59-64	3001*/54-61-66	3037*/58-62-66
					3043**58-64-68
42	3165	2817F/44-54-61	2992*/52-60-65	3050*/55-62-67	3095*/58-63-68
					3098**58-64-69
40	3233	2855F/44-55-62	3038*/52-61-67	3097*/55-63-68	3153*/58-65-70
38	3296	2890F/44-56-63	3078*/52-62-68	3139*/55-64-69	3199*/58-66-71
36	3364	2926F/45-57-64	3121*/53-63-69	3182*/56-65-71	3244*/59-67-72
34	3427	2958F/45-58-65	3159*/53-64-70	3221*/56-66-72	3284*/59-68-73
32	3493	2987F/45-58-66	3195*/53-65-71	3258*/56-67-73	3324*/59-69-74
30	3496	2997F/45-59-66	3204*/54-65-71	3267*/56-67-73	3334*/59-69-74
28	3497	3005F/46-59-66	3212*/54-65-71	3275*/57-67-73	3342*/60-69-74
26	3497	3014F/46-59-67	3219*/54-65-72	3284*/57-67-73	3351*/60-69-75
24	3498	3022F/46-59-67	3227*/55-66-72	3292*/57-68-73	3359*/60-69-75
22	3498	3031F/46-60-67	3235*/55-66-72	3300*/58-68-74	3368*/61-70-75
20	3499	3040F/47-60-67	3243*/55-66-72	3309*/58-68-74	3376*/61-70-75
18	3499	3049F/47-60-68	3251*/56-66-72	3317*/59-68-74	3384*/62-70-75
16	3500	3058F/47-60-68	3259*/56-67-73	3326*/59-69-74	3393*/62-70-76
14	3500	3067F/48-61-68	3267*/56-67-73	3334*/59-69-74	3399*/62-71-76
12	3501	3076F/48-61-68	3275*/57-67-73	3343*/60-69-75	3403*/63-71-76
					3405**63-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2712 M LONG WITH 331 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.25 PERCENT FOR TODA AND -0.25 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
24L	28	757	0	41	805	0	42	827	0
	87	1832	0	129	2890	0	139	3000	0
	172	3228	0	175	3300	0	183	3433	0
	261	4091	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 24L CYYZ

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

10	3502	3085F/48-61-68	3284*/57-67-73	3352*/60-69-75	3408*/63-71-76
					3411**63-72-77
8	3502	3094F/49-62-69	3292*/57-68-73	3360*/60-69-75	3412*/64-71-76
					3419**64-72-77
6	3503	3104F/49-62-69	3301*/58-68-74	3369*/61-70-75	3418*/64-71-76
					3427**64-73-78
4	3503	3113F/49-62-69	3310*/58-68-74	3377*/61-70-75	3424*/65-71-76
					3435**64-73-78
2	3503	3123F/49-63-69	3318*/59-68-74	3381*/62-70-75	3430*/65-71-76
				3382**62-71-76	3443**65-74-78
0	3503	3131*/50-63-70	3327*/59-69-74	3385*/62-70-75	3435*/66-71-76
				3388**62-71-76	3450**65-74-79
-2	3503	3139*/50-63-70	3335*/59-69-74	3389*/63-70-75	3440*/66-71-76
				3393**63-72-77	3458**66-75-79
-4	3504	3147*/50-63-70	3344*/60-69-75	3393*/63-70-76	3444*/67-71-76
				3398**63-72-77	3466**66-75-80
-6	3504	3155*/51-63-70	3353*/60-69-75	3397*/64-70-76	3449*/67-71-76
				3403**64-73-78	3473**67-76-80
-8	3504	3163*/51-64-70	3358*/61-69-75	3400*/64-71-76	3453*/68-71-76
				3408**64-73-78	3480**67-77-80
-10	3504	3171*/52-64-71	3361*/61-70-75	3404*/65-71-76	3458*/68-71-76
			3364**61-70-76	3415**65-74-78	3487**68-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2712 M LONG WITH 331 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.25 PERCENT FOR TODA AND -0.25 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
24L	28	757	0	41	805	0	42	827	0
	87	1832	0	129	2890	0	139	3000	0
	172	3228	0	175	3300	0	183	3433	0
	261	4091	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 24R

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2429*/43-44-49	2504*/47-47-51	2526*/48-48-52	2547*/48-48-52
		2433**43-48-52	2541**53-56-59	2576**56-59-62	2609**59-63-65
58A	2600	2477*/44-46-51	2558*/49-49-53	2580*/49-49-53	2602*/49-50-54
		2479**44-48-52	2589**53-56-59	2625**56-59-62	2659**60-63-66
56A	2666	2531*/44-47-52	2619*/50-50-55	2642*/51-51-55	2665*/52-52-56
		2533**44-49-54	2645**54-56-60	2682**57-60-63	2716**60-64-66
54A	2731	2585*/45-49-54	2679*/52-52-56	2703*/53-53-57	2727*/54-54-58
			2700**55-58-61	2737**58-61-64	2773**61-65-67
52	2800	2643*/46-50-56	2744*/54-54-58	2768*/55-55-59	2793*/55-55-60
			2759**55-59-63	2796**58-61-64	2832**61-64-67
50	2873	2702*/46-52-57	2810*/56-56-60	2836*/56-56-61	2862*/57-57-62
			2817**56-59-63	2855**59-62-65	2893**62-64-67
48	2951	2763*/46-54-59	2878*/56-57-62	2910*/58-58-63	2935*/59-59-64
			2880**56-60-64	2918**59-62-66	2957**62-65-69
46	3025	2819*/46-55-61	2938*/56-59-64	2975*/59-60-65	3005*/61-61-65
			2939**56-61-65	2979**59-62-67	3018**62-66-69
44	3096	2870*/46-56-62	2995*/56-60-65	3034*/59-62-66	3071*/62-63-67
				3036**59-64-68	3076**62-66-70
42	3165	2911*/47-57-63	3050*/56-62-67	3091*/59-63-68	3130*/62-64-69
					3133**62-67-71
40	3233	2951*/47-58-65	3105*/56-63-68	3147*/59-64-69	3188*/62-66-70
					3189**62-68-72
38	3296	2988*/47-59-66	3154*/56-64-70	3197*/59-66-71	3240*/63-67-72
					3241**63-69-74
36	3364	3027*/48-60-67	3205*/56-66-71	3250*/59-67-72	3294*/63-68-73
34	3427	3060F/48-61-68	3251*/56-67-72	3297*/60-68-73	3343*/63-69-74
32	3493	3091F/48-62-69	3296*/56-68-73	3344*/60-69-75	3392*/63-70-76
30	3496	3100F/48-62-69	3303*/57-68-74	3352*/60-69-75	3399*/63-71-76
28	3497	3109F/49-62-69	3308*/57-68-74	3357*/60-69-75	3404*/64-71-76
26	3497	3118F/49-62-69	3313*/57-68-74	3362*/61-70-75	3409*/64-71-76
24	3498	3127F/49-63-69	3318*/58-68-74	3367*/61-70-75	3415*/65-71-76
22	3498	3135F/49-63-70	3323*/58-68-74	3372*/62-70-75	3423*/65-71-76
					3424**65-73-78
20	3499	3144*/50-63-70	3329*/59-69-74	3377*/62-70-75	3430*/65-71-76
					3432**65-73-78
18	3499	3153*/50-63-70	3334*/59-69-74	3382*/63-70-75	3437*/66-71-76
					3440**66-74-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2923 M LONG WITH 333 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.18 PERCENT FOR TODA AND -0.18 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
24R	3	342	0	5	360	0	45	1244	0
	69	1741	0	85	1960	0	182	2835	0
	258	4149	0	262	4171	0	270	6308	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 24R

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
16	3500	3162*/50-64-70	3339*/60-69-74	3386*/63-70-75	3443*/66-71-76
					3447**66-74-78
14	3500	3170*/51-64-71	3344*/60-69-75	3391*/63-70-76	3450*/67-71-76
					3455**67-75-79
12	3501	3179*/51-64-71	3349*/60-69-75	3397*/64-70-76	3457*/67-71-76
					3463**67-75-79
10	3502	3189*/51-65-71	3354*/61-69-75	3402*/64-71-76	3463*/67-71-76
				3403**64-73-78	3470**67-76-80
8	3502	3198*/52-65-71	3359*/61-69-75	3407*/65-71-76	3468*/68-71-76
				3408**65-73-78	3478**68-76-80
6	3503	3207*/52-65-71	3364*/62-70-75	3412*/65-71-76	3472*/69-71-76
				3415**65-74-78	3485**68-76-80
4	3503	3216*/52-65-72	3369*/62-70-75	3419*/66-71-76	3476*/69-71-76
				3423**66-74-79	3491**69-76-80
2	3503	3226*/53-66-72	3374*/63-70-75	3426*/66-71-76	3480*/70-71-76
				3431**66-74-79	3496**69-77-81
0	3503	3234*/53-66-72	3379*/63-70-75	3433*/67-71-76	3484*/70-71-76
			3380**63-72-77	3439**67-75-79	3501**70-77-81
-2	3503	3239*/53-66-72	3384*/64-70-75	3439*/67-71-76	3487*/71-71-76
			3385**64-73-78	3446**67-75-79	3507**70-77-81
-4	3504	3243*/54-66-72	3388*/64-70-75	3444*/68-71-76	3489*/71-71-76
			3390**64-73-78	3454**67-75-79	3512**71-78-81
-6	3504	3248*/54-66-72	3393*/65-70-76	3448*/68-71-76	3491*/71-71-76
			3395**65-73-78	3461**68-76-80	3517**71-78-82
-8	3504	3253*/55-66-73	3397*/65-70-76	3452*/69-71-76	3493*/71-71-76
			3400**65-73-78	3468**68-76-80	3522**72-79-82
-10	3504	3258*/55-67-73	3402*/66-71-76	3456*/69-71-76	3495*/71-71-76
			3405**66-73-78	3476**69-76-80	3527**72-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2923 M LONG WITH 333 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.18 PERCENT FOR TODA AND -0.18 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
24R	3	342	0	5	360	0	45	1244	0
	69	1741	0	85	1960	0	182	2835	0
	258	4149	0	262	4171	0	270	6308	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 569 FT

RUNWAY 33L

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2343*/40-41-47	2458*/45-45-50	2493*/47-47-51	2528*/48-48-52
			2460**47-47-51	2497**48-48-52	2534**50-50-54
58A	2600	2383*/41-43-48	2504*/47-47-51	2541*/48-48-52	2576*/49-49-53
			2506**48-48-52	2544**49-49-54	2582**51-51-55
56A	2666	2430*/42-44-49	2558*/48-48-53	2595*/50-50-54	2632*/51-51-55
			2560**49-49-54	2598**51-51-55	2637**53-53-57
54A	2731	2476*/42-45-51	2612*/50-50-55	2650*/51-51-56	2688*/52-52-57
				2652**52-52-57	2691**54-54-58
52	2800	2525*/43-46-52	2669*/51-51-56	2708*/53-53-57	2747*/54-54-58
				2710**54-54-58	2750**55-55-60
50	2873	2576*/44-48-54	2728*/53-53-58	2768*/54-54-59	2809*/55-55-60
					2811**57-57-61
48	2951	2629*/45-49-56	2787*/54-54-60	2832*/56-56-61	2874*/57-57-62
					2875**58-58-63
46	3025	2678*/45-50-57	2838*/54-56-61	2890*/57-57-63	2935*/59-59-64
44	3096	2724*/46-52-58	2886*/54-57-63	2940*/57-59-64	2991*/60-60-65
42	3165	2767*/46-53-60	2932*/55-58-64	2987*/57-60-65	3041*/60-61-67
40	3233	2810*/47-54-61	2978*/55-59-65	3035*/58-61-67	3091*/61-63-68
38	3296	2848*/47-55-62	3019*/55-60-66	3077*/58-62-68	3134*/61-64-69
36	3364	2887*/47-56-63	3062*/55-61-68	3121*/58-63-69	3180*/61-65-70
34	3427	2922*/47-56-64	3099*/56-62-69	3159*/59-64-70	3220*/61-66-72
32	3493	2955*/47-57-65	3135*/56-63-70	3197*/59-65-71	3258*/62-67-73
30	3496	2963*/48-58-65	3144*/56-63-70	3205*/59-65-71	3267*/62-67-73
28	3497	2970*/48-58-66	3151*/57-63-70	3213*/59-65-72	3274*/62-67-73
26	3497	2977*/48-58-66	3158*/57-64-70	3220*/60-66-72	3282*/63-67-73
24	3498	2984*/49-58-66	3166*/57-64-70	3228*/60-66-72	3290*/63-68-73
22	3498	2991*/49-58-66	3173*/58-64-71	3235*/61-66-72	3297*/64-68-74
20	3499	2998*/49-59-66	3180*/58-64-71	3242*/61-66-72	3305*/64-68-74
18	3499	3005*/50-59-66	3188*/58-65-71	3250*/61-66-72	3313*/64-68-74
16	3500	3012*/50-59-67	3195*/59-65-71	3257*/62-67-73	3321*/65-68-74
14	3500	3019*/50-59-67	3203*/59-65-71	3265*/62-67-73	3328*/65-69-74
12	3501	3026*/51-59-67	3210*/59-65-71	3272*/63-67-73	3336*/66-69-74
10	3502	3033*/51-60-67	3218*/60-65-72	3280*/63-67-73	3344*/66-69-75
8	3502	3041*/51-60-67	3226*/60-66-72	3288*/63-68-73	3352*/66-69-75
6	3503	3048*/52-60-68	3233*/61-66-72	3296*/64-68-73	3360*/67-69-75
4	3503	3055*/52-60-68	3241*/61-66-72	3304*/64-68-74	3368*/67-70-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1000 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2767 M LONG WITH 303 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33L	14	305	0	17	325	0	48	607	0
	56	667	0	125	2088	0	143	2268	0
	163	2579	0	174	4708	0	352	19711	0
	555	19776	0	657	21683	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 33L BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D3.7 YYZ DME TO A MAG COURSE OF 075 DEGREES

ELEVATION 569 FT

RUNWAY 33L CYYZ

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

PEARSON INTL
TORONTO
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

2	3503	3062*/52-61-68	3248*/61-66-72	3312*/65-68-74	3376*/68-70-75
0	3503	3070*/53-61-68	3256*/62-67-73	3319*/65-68-74	3383*/68-70-75
-2	3503	3077*/53-61-68	3263*/62-67-73	3327*/65-69-74	3391*/68-70-76
-4	3504	3084*/54-61-68	3271*/63-67-73	3335*/66-69-74	3398*/69-71-76
-6	3504	3091*/54-62-69	3278*/63-67-73	3343*/66-69-75	3406*/69-71-76
-8	3504	3099*/54-62-69	3286*/64-67-73	3350*/67-69-75	3415*/70-71-76
-10	3504	3106*/55-62-69	3294*/64-68-73	3358*/67-69-75	3427*/70-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1000 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2767 M LONG WITH 303 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33L	14	305	0	17	325	0	48	607	0
	56	667	0	125	2088	0	143	2268	0
	163	2579	0	174	4708	0	352	19711	0
	555	19776	0	657	21683	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 33L BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D3.7 YYZ DME TO A MAG COURSE OF 075 DEGREES

ELEVATION 569 FT

RUNWAY 33R

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2544	2541*/48-48-52	2590*/47-48-52	2607*/48-48-52	2624*/48-48-52
		2571**51-54-57	2664**61-65-67	2686**64-69-70	2704**67-73-74
58A	2600	2596*/50-50-54	2649*/49-50-54	2666*/49-50-54	2683*/50-50-54
		2620**52-55-58	2714**61-65-67	2735**65-69-71	2754**68-73-74
56A	2666	2658*/52-52-56	2713*/50-52-56	2731*/51-52-56	2749*/51-52-56
		2675**52-55-59	2769**62-66-68	2791**65-70-71	2811**68-73-75
54A	2731	2719*/53-53-57	2778*/52-54-58	2796*/53-54-58	2814*/53-54-58
		2728**53-55-59	2825**62-66-68	2849**65-70-72	2870**68-74-75
52	2800	2781*/53-55-59	2846*/54-56-60	2864*/54-56-60	2882*/55-56-60
		2784**53-56-60	2885**62-66-69	2910**65-70-72	2933**69-74-76
50	2873	2840*/53-57-61	2916*/55-58-62	2935*/56-58-62	2953*/56-58-62
			2946**62-67-70	2973**65-71-73	2998**69-74-76
48	2951	2895*/53-58-63	2989*/57-60-64	3011*/57-60-64	3030*/58-60-64
			3011**62-67-70	3039**66-71-74	3065**69-75-77
46	3025	2942*/53-59-64	3058*/58-62-66	3082*/59-62-66	3104*/59-62-66
			3073**62-67-71	3102**66-71-74	3130**69-75-78
44	3096	2986*/54-60-65	3125*/59-63-68	3149*/60-63-68	3174*/61-63-68
			3132**62-68-71	3163**66-72-75	3192**69-75-78
42	3165	3030*/54-61-66	3189*/60-65-70	3214*/61-65-70	3239*/62-65-70
			3189**63-68-72	3221**66-72-75	3251**69-76-79
40	3233	3073*/54-62-68	3247*/62-67-72	3278*/62-67-72	3305*/63-67-72
			3246**63-69-73	3279**66-72-76	3311**70-76-79
38	3296	3113*/55-63-69	3300*/63-69-73	3340*/63-69-73	3367*/64-69-73
			3299**63-69-73	3335**66-73-77	3368**70-76-80
36	3364	3154*/55-64-70	3348*/63-70-74	3397*/64-70-75	3440*/65-70-75
				3391**66-73-77	3434**70-77-80
34	3427	3190*/55-65-71	3388*/63-71-75	3473*/65-71-76	3506*/66-71-76
				3455**66-73-77	3500**69-77-80
32	3493	3224*/55-66-72	3440*/63-71-76	3518*/65-71-76	3557*/65-71-76
				3512**66-73-78	3549**69-77-81
30	3496	3234*/56-66-72	3458*/63-71-76	3525*/65-71-76	3562*/66-71-76
				3520**66-74-78	3556**70-78-81
28	3497	3242*/56-66-72	3473*/64-71-76	3530*/65-71-76	3564*/66-71-76
				3525**67-74-78	3561**70-78-82
26	3497	3250*/56-66-72	3487*/64-71-76	3535*/65-71-76	3567*/66-71-76
				3530**67-75-79	3567**71-79-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1090 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3368 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33R	16	305	0	17	375	0	18	482	0
	36	710	0	142	3030	0	148	3160	0
	159	3237	0	331	7050	0	516	18295	0
	545	18339	0	648	20259	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 33R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D3.7 YYZ DME TO A MAG COURSE OF 075 DEGREES

ELEVATION 569 FT

RUNWAY 33R

CYYZ

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PEARSON INTL

TORONTO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3498	3258*/56-67-73	3496*/64-71-76	3539*/65-71-76	3569*/66-71-76
				3535**68-75-79	3572**71-79-83
22	3498	3267*/57-67-73	3503*/64-71-76	3543*/65-71-76	3572*/66-71-76
			3502**65-72-76	3540**68-76-80	3577**72-80-83
20	3499	3275*/57-67-73	3508*/64-72-76	3546*/65-72-76	3574*/66-72-76
			3508**65-72-77	3545**69-76-80	3582**72-80-83
18	3499	3284*/57-67-73	3513*/64-72-76	3548*/65-72-76	3576*/66-72-76
			3513**65-73-77	3551**69-77-81	3587**73-81-84
16	3500	3293*/58-68-73	3518*/65-72-76	3551*/65-72-76	3579*/66-72-76
			3518**66-73-78	3556**69-77-81	3593**73-81-84
14	3500	3302*/58-68-74	3523*/65-72-76	3553*/65-72-76	3581*/66-72-76
			3524**66-74-78	3561**70-78-81	3598**74-82-85
12	3501	3311*/58-68-74	3527*/65-72-76	3556*/66-72-76	3582*/66-72-76
			3530**67-74-79	3567**70-78-82	3604**74-82-85
10	3502	3320*/59-68-74	3530*/65-72-76	3558*/66-72-76	3584*/66-72-76
			3535**67-75-79	3573**71-79-82	3609**75-83-86
8	3502	3329*/59-69-74	3532*/65-72-76	3561*/66-72-76	3585*/66-72-76
			3540**68-75-79	3578**71-79-83	3615**75-83-86
6	3503	3339*/59-69-74	3535*/65-72-76	3563*/66-72-76	3587*/67-72-76
			3546**68-76-80	3584**72-80-83	3621**76-84-87
4	3503	3348*/60-69-75	3537*/65-72-76	3564*/66-72-76	3588*/67-72-76
			3551**69-77-80	3589**72-81-84	3626**76-85-87
2	3503	3357*/60-69-75	3539*/65-72-76	3566*/66-72-76	3589*/67-72-76
			3556**69-77-81	3594**73-81-84	3631**77-85-88
0	3503	3367*/61-70-75	3541*/65-72-76	3567*/66-72-76	3590*/67-72-76
			3562**70-78-81	3600**73-82-85	3636**77-86-88
-2	3503	3376*/61-70-75	3543*/65-72-76	3568*/66-72-76	3591*/67-72-76
			3567**70-78-82	3605**74-82-85	3641**78-86-89
-4	3504	3385*/61-70-75	3545*/65-72-76	3569*/66-72-76	3592*/67-72-76
			3573**71-79-82	3610**74-83-86	3646**78-87-89
-6	3504	3395*/62-70-76	3546*/65-72-76	3570*/66-72-76	3593*/67-72-76
			3578**71-79-83	3616**75-83-86	3652**79-88-90
-8	3504	3404*/62-71-76	3547*/66-72-76	3570*/66-72-76	3594*/67-72-76
			3583**72-80-83	3621**75-84-87	3657**79-88-91
-10	3504	3415*/62-71-76	3548*/66-72-76	3571*/66-72-76	3595*/67-72-76
			3589**72-80-84	3626**76-85-87	3662**80-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1090 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3368 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33R	16	305	0	17	375	0	18	482	0
	36	710	0	142	3030	0	148	3160	0
	159	3237	0	331	7050	0	516	18295	0
	545	18339	0	648	20259	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 33R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D3.7 YYZ DME TO A MAG COURSE OF 075 DEGREES

ELEVATION 328 FT

RUNWAY 15

EGBB

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2566	2401*/43-43-48	2500*/47-47-51	2532*/48-48-52	2563*/49-49-53
		2403**46-46-50	2507**51-51-55	2543**52-53-56	2578**54-56-59
58A	2623	2448*/45-45-50	2549*/48-48-53	2582*/49-49-54	2614*/50-50-54
		2450**46-46-51	2555**52-53-57	2592**53-54-58	2628**55-56-59
56A	2689	2502*/46-46-52	2606*/50-50-54	2640*/51-51-55	2672*/52-52-56
		2503**47-47-53	2611**54-54-58	2648**55-55-59	2685**56-57-61
54A	2754	2555*/48-48-53	2662*/51-51-56	2697*/52-52-57	2731*/54-54-58
			2666**55-55-59	2703**56-56-60	2741**57-59-62
52	2828	2614*/49-49-55	2724*/53-53-58	2761*/54-54-59	2796*/55-55-60
			2728**56-56-60	2765**58-58-62	2804**59-59-63
50	2902	2671*/50-51-57	2786*/55-55-60	2824*/56-56-61	2860*/57-57-62
			2790**57-57-61	2829**58-58-62	2867**59-59-64
48	2980	2726*/50-52-58	2852*/56-56-61	2891*/58-58-62	2929*/59-59-63
			2855**58-58-63	2894**59-59-64	2934**61-61-65
46	3054	2775*/50-54-60	2914*/58-58-63	2953*/59-59-64	2992*/60-60-65
			2916**59-59-64	2955**61-61-66	2996**62-62-67
44	3125	2822*/50-55-61	2971*/59-59-65	3012*/61-61-66	3052*/62-62-67
				3015**62-62-67	3056**63-64-68
42	3194	2869*/51-56-62	3023*/59-61-66	3071*/62-62-67	3112*/64-64-68
					3115**65-66-70
40	3262	2914*/51-57-64	3072*/59-62-68	3123*/62-64-69	3170*/65-65-70
38	3327	2955*/51-58-65	3116*/60-63-69	3170*/63-65-70	3221*/66-66-71
36	3394	2997*/51-59-66	3163*/60-64-70	3217*/63-66-71	3271*/66-67-73
34	3464	3032*/51-60-67	3203*/60-65-71	3259*/63-67-73	3316*/66-68-74
32	3511	3057*/52-60-68	3235*/60-66-72	3293*/63-68-73	3352*/66-69-75
30	3512	3066*/52-61-68	3242*/61-66-72	3300*/64-68-74	3359*/67-69-75
28	3512	3074*/52-61-68	3248*/61-66-72	3306*/64-68-74	3365*/67-70-75
26	3513	3082*/53-61-68	3255*/61-66-73	3313*/64-68-74	3372*/67-70-75
24	3514	3089*/53-61-69	3261*/62-67-73	3320*/65-68-74	3379*/68-70-75
22	3514	3095*/53-62-69	3268*/62-67-73	3327*/65-69-74	3385*/68-70-75
20	3515	3102*/54-62-69	3275*/63-67-73	3334*/66-69-74	3392*/69-70-76
18	3515	3109*/54-62-69	3281*/63-67-73	3341*/66-69-74	3399*/69-70-76
16	3516	3115*/54-62-69	3288*/63-67-73	3347*/66-69-75	3405*/70-71-76
14	3516	3122*/55-62-69	3295*/64-68-73	3354*/67-69-75	3412*/70-71-76
12	3517	3129*/55-63-70	3302*/64-68-74	3361*/67-69-75	3423*/70-71-76
10	3518	3136*/55-63-70	3309*/65-68-74	3368*/68-70-75	3433*/71-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 440 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.33 PERCENT FOR TODA AND 0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15	5	88	0	28	481	0	39	635	0
	55	762	0	63	764	0	70	848	0
	138	2086	0	255	37492	0	261	37805	0
	297	37867	0	307	38013	0	330	38261	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 328 FT

RUNWAY 15

EGBB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
8	3518	3142*/56-63-70	3316*/65-68-74	3374*/68-70-75	3441*/71-71-76 3443**71-71-76
6	3519	3149*/56-63-70	3323*/65-68-74	3381*/69-70-75	3448*/71-71-76 3452**72-72-76
4	3519	3156*/57-63-70	3330*/66-69-74	3388*/69-70-75	3454*/71-71-76 3460**72-72-77
2	3519	3163*/57-64-70	3337*/66-69-74	3395*/70-70-76	3460*/71-71-76 3469**72-72-77
0	3520	3169*/57-64-71	3343*/67-69-75	3401*/70-71-76	3466*/71-71-76 3477**73-73-77
-2	3520	3176*/58-64-71	3350*/67-69-75	3407*/70-71-76	3472*/71-71-76 3485**73-73-78
-4	3520	3182*/58-64-71	3356*/68-69-75	3414*/71-71-76	3477*/71-71-76 3490**74-74-79
-6	3520	3189*/59-64-71	3363*/68-69-75	3421*/71-71-76 3424**71-71-76	3482*/71-71-76 3496**74-75-79
-8	3520	3196*/59-65-71	3369*/69-70-75	3428*/71-71-76 3433**72-72-77	3487*/71-71-76 3501**75-76-80
-10	3520	3202*/59-65-71	3376*/69-70-75	3434*/71-71-76 3442**72-72-77	3491*/71-71-76 3506**75-76-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 440 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.33 PERCENT FOR TODA AND 0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15	5	88	0	28	481	0	39	635	0
	55	762	0	63	764	0	70	848	0
	138	2086	0	255	37492	0	261	37805	0
	297	37867	0	307	38013	0	330	38261	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 328 FT

RUNWAY 33

EGBB

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2566	2408*/44-44-49	2493*/47-47-51	2520*/47-47-52	2546*/48-48-52
		2421**47-50-54	2521**55-59-62	2554**56-60-63	2585**58-62-64
58A	2623	2457*/45-45-50	2543*/48-48-53	2571*/49-49-53	2599*/50-50-54
		2468**47-50-54	2570**56-60-63	2603**57-62-64	2635**59-63-65
56A	2689	2513*/47-47-52	2602*/50-50-54	2631*/51-51-55	2659*/51-51-56
		2522**48-50-55	2627**57-60-63	2659**58-62-65	2692**64-65-67
54A	2754	2569*/48-48-54	2660*/51-51-56	2690*/52-52-57	2719*/53-53-58
		2575**49-51-56	2683**57-61-64	2716**59-63-66	2749**62-66-69
52	2828	2632*/50-50-55	2726*/53-53-58	2756*/54-54-59	2786*/55-55-59
		2635**49-51-56	2746**59-62-66	2779**61-64-67	2813**63-67-69
50	2902	2693*/50-52-57	2791*/55-55-60	2822*/56-56-61	2853*/57-57-61
			2807**59-62-66	2843**62-65-69	2878**64-68-71
48	2980	2752*/50-53-59	2860*/57-57-62	2892*/58-58-63	2924*/59-59-63
			2872**59-62-66	2909**62-65-69	2946**65-69-72
46	3054	2806*/50-55-60	2924*/58-58-63	2957*/59-59-64	2989*/60-60-65
			2931**59-61-66	2970**62-65-69	3008**65-68-72
44	3125	2852*/50-56-62	2986*/59-60-65	3019*/61-61-66	3053*/62-62-67
			2987**59-61-66	3028**62-64-69	3069**65-68-72
42	3194	2896*/50-57-63	3042*/59-61-67	3081*/63-63-68	3115*/64-64-69
				3085**62-64-69	3127**66-68-72
40	3262	2939*/50-58-64	3095*/59-63-68	3139*/63-64-69	3175*/65-65-70
					3182**66-67-72
38	3327	2978*/51-59-65	3144*/59-64-70	3189*/63-65-71	3232*/66-67-72
					3234**66-68-73
36	3394	3019*/51-60-67	3194*/60-65-71	3241*/63-67-72	3286*/66-68-73
34	3464	3054*/51-61-68	3238*/60-66-72	3287*/63-68-73	3336*/66-69-74
32	3511	3082*/51-61-68	3269*/60-67-73	3324*/63-68-74	3374*/66-70-75
30	3512	3089*/52-61-69	3277*/60-67-73	3329*/63-69-74	3379*/67-70-75
28	3512	3097*/52-62-69	3284*/61-67-73	3335*/64-69-74	3384*/67-70-75
26	3513	3104*/52-62-69	3289*/61-67-73	3340*/64-69-74	3389*/68-70-75
24	3514	3112*/53-62-69	3294*/61-68-73	3345*/65-69-75	3394*/68-70-76
22	3514	3119*/53-62-69	3300*/62-68-74	3350*/65-69-75	3399*/68-70-76
20	3515	3126*/53-63-69	3305*/62-68-74	3356*/66-69-75	3404*/69-71-76
18	3515	3134*/54-63-70	3310*/63-68-74	3361*/66-69-75	3409*/69-71-76
					3410**69-72-77
16	3516	3141*/54-63-70	3316*/63-68-74	3366*/66-70-75	3415*/70-71-76
					3418**70-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 193 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.33 PERCENT FOR TODA AND -0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33	11	274	0	43	523	0	49	577	0
	69	1022	0	83	1298	0	125	2280	0
	185	2360	0	262	14246	0	281	14787	0
	298	15536	0	337	32498	0	370	32645	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 328 FT

RUNWAY 33

EGBB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

BIRMINGHAM

BIRMINGHAM

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

14	3516	3149*/54-63-70	3321*/64-68-74	3371*/67-70-75	3422*/70-71-76
					3426**70-73-78
12	3517	3157*/55-63-70	3327*/64-68-74	3377*/67-70-75	3427*/71-71-76
					3435**71-74-78
10	3518	3165*/55-64-70	3332*/64-69-74	3382*/68-70-75	3432*/71-71-76
					3443**71-74-79
8	3518	3172*/55-64-71	3338*/65-69-74	3387*/68-70-75	3437*/71-71-76
					3451**71-75-79
6	3519	3180*/56-64-71	3343*/65-69-75	3392*/69-70-76	3442*/71-71-76
				3393**69-72-77	3459**72-75-79
4	3519	3188*/56-64-71	3348*/66-69-75	3396*/69-70-76	3446*/71-71-76
				3398**69-73-78	3467**72-76-80
2	3519	3196*/56-65-71	3353*/66-69-75	3401*/70-71-76	3450*/71-71-76
				3404**70-73-78	3475**73-76-80
0	3520	3204*/57-65-71	3358*/67-69-75	3404*/70-71-76	3454*/71-71-76
				3409**70-73-78	3482**73-76-80
-2	3520	3211*/57-65-72	3363*/67-69-75	3407*/71-71-76	3458*/71-71-76
				3416**71-74-78	3489**74-76-80
-4	3520	3217*/58-65-72	3368*/68-70-75	3410*/71-71-76	3462*/71-71-76
			3369**68-72-77	3425**71-74-79	3494**74-77-81
-6	3520	3223*/58-65-72	3372*/68-70-75	3415*/71-71-76	3466*/71-71-76
			3374**68-72-77	3433**72-74-79	3499**75-77-81
-8	3520	3228*/58-66-72	3377*/69-70-75	3419*/71-71-76	3469*/71-71-76
			3380**69-72-77	3440**72-75-79	3504**75-78-82
-10	3520	3233*/59-66-72	3381*/69-70-75	3424*/71-71-76	3473*/71-71-76
			3385**69-73-78	3448**73-75-79	3510**76-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3003 M LONG WITH 193 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.33 PERCENT FOR TODA AND -0.33 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33	11	274	0	43	523	0	49	577	0
	69	1022	0	83	1298	0	125	2280	0
	185	2360	0	262	14246	0	281	14787	0
	298	15536	0	337	32498	0	370	32645	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 257 FT

RUNWAY 05L

EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2572	2449*/45-45-50	2546*/48-48-52	2576*/49-49-53	2604*/49-49-53
		2451**46-46-50	2557**52-53-57	2592**54-55-58	2627**56-58-60
58A	2629	2496*/46-46-51	2596*/50-50-54	2628*/51-51-55	2656*/51-51-55
			2606**53-54-57	2642**56-56-60	2677**57-58-61
56A	2695	2547*/47-48-53	2654*/51-51-56	2687*/52-52-57	2717*/53-53-57
			2662**55-55-59	2699**56-57-61	2736**58-59-62
54A	2761	2597*/48-49-54	2712*/53-53-57	2746*/54-54-58	2777*/54-54-59
			2719**55-55-59	2756**57-58-62	2793**59-60-63
52	2836	2654*/49-51-56	2777*/55-55-59	2812*/56-56-60	2844*/56-57-61
			2783**57-57-61	2820**59-59-63	2857**60-61-65
50	2910	2708*/49-52-58	2841*/56-56-61	2877*/57-57-62	2910*/58-59-63
			2844**58-58-62	2884**60-60-64	2921**62-62-66
48	2989	2760*/50-53-59	2907*/58-58-63	2945*/59-59-64	2981*/60-60-65
				2949**61-61-65	2989**63-63-67
46	3062	2807*/50-54-60	2961*/58-59-64	3007*/61-61-66	3045*/62-62-67
					3051**64-64-68
44	3133	2852*/50-56-62	3012*/58-61-66	3062*/61-62-67	3107*/64-64-68
					3109**64-64-69
42	3203	2896*/50-57-63	3062*/59-62-67	3115*/62-64-69	3165*/64-65-70
40	3271	2939*/51-58-64	3110*/59-63-69	3164*/62-65-70	3217*/65-66-71
38	3336	2978*/51-59-65	3153*/59-64-70	3210*/62-66-71	3265*/65-68-72
36	3403	3019*/51-60-67	3198*/60-65-71	3256*/62-67-72	3315*/65-69-74
34	3474	3054*/51-60-68	3237*/60-66-72	3299*/63-68-73	3360*/66-70-75
32	3516	3080*/51-61-68	3265*/60-67-73	3329*/63-69-74	3392*/66-70-76
30	3516	3087*/52-61-68	3272*/60-67-73	3337*/63-69-74	3399*/66-70-76
28	3517	3095*/52-62-69	3280*/61-67-73	3344*/64-69-75	3407*/67-71-76
26	3518	3102*/52-62-69	3288*/61-67-73	3352*/64-69-75	3416*/67-71-76
24	3518	3109*/53-62-69	3296*/61-68-74	3359*/64-69-75	3428*/67-71-76
22	3519	3117*/53-62-69	3304*/62-68-74	3367*/65-70-75	3439*/67-71-76
20	3519	3124*/53-62-69	3312*/62-68-74	3374*/65-70-75	3451*/68-71-76
18	3520	3132*/54-63-70	3319*/63-68-74	3382*/66-70-75	3461*/68-71-76
16	3520	3139*/54-63-70	3327*/63-68-74	3389*/66-70-76	3472*/68-71-76
14	3521	3147*/54-63-70	3335*/63-69-74	3397*/66-70-76	3482*/69-71-76
12	3522	3155*/55-63-70	3343*/64-69-75	3405*/67-71-76	3490*/69-71-76
10	3522	3162*/55-64-70	3350*/64-69-75	3413*/67-71-76	3497*/70-71-76
8	3523	3170*/56-64-71	3358*/64-69-75	3425*/67-71-76	3504*/70-72-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 490 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3014 M LONG WITH 215 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05L	4	219	0	5	246	0	8	277	0
	13	337	0	17	346	0	20	358	0
	21	404	0	25	443	0	31	495	0
	36	510	0	46	655	0	269	14305	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05L BASED ON A 15 DEGREE BANKED
CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF 300
DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 05L EGCC

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

MANCHESTER
MANCHESTER
DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
6	3524	3178*/56-64-71	3366*/65-70-75	3437*/68-71-76	3510*/71-72-76
4	3524	3185*/56-64-71	3373*/65-70-75	3448*/68-71-76	3516*/71-72-77
2	3524	3193*/57-65-71	3381*/66-70-75	3458*/68-71-76	3522*/72-72-77
0	3524	3201*/57-65-71	3388*/66-70-75	3468*/69-71-76	3524*/71-72-77
					3528**72-73-77
-2	3524	3208*/57-65-71	3395*/67-70-76	3478*/69-71-76	3524*/71-72-77
					3534**73-73-78
-4	3525	3216*/58-65-72	3403*/67-71-76	3487*/70-71-76	3525*/70-72-77
					3540**73-74-78
-6	3525	3224*/58-65-72	3410*/67-71-76	3493*/70-71-76	3525*/69-72-77
					3546**74-74-79
-8	3525	3231*/59-66-72	3421*/68-71-76	3499*/71-71-76	3525*/69-72-77
					3552**74-75-79
-10	3525	3239*/59-66-72	3432*/68-71-76	3505*/71-72-76	3526*/68-72-77
					3558**75-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 490 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3014 M LONG WITH 215 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05L	4	219	0	5	246	0	8	277	0
	13	337	0	17	346	0	20	358	0
	21	404	0	25	443	0	31	495	0
	36	510	0	46	655	0	269	14305	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05L BASED ON A 15 DEGREE BANKED
CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF 300
DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 05R

EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2572	2466*/46-46-50	2557*/49-49-53	2583*/49-49-53	2609*/49-49-53
		2468**46-46-51	2574**54-55-59	2609**56-59-61	2643**58-60-63
58A	2629	2514*/47-47-52	2608*/50-50-54	2636*/51-51-55	2662*/51-51-55
			2624**56-56-59	2659**57-59-62	2694**59-61-64
56A	2695	2567*/47-48-53	2667*/52-52-56	2696*/52-53-57	2724*/53-53-57
			2681**56-57-61	2717**58-60-63	2752**60-62-65
54A	2761	2619*/48-50-55	2726*/53-53-58	2757*/54-54-59	2785*/54-54-59
			2738**57-59-62	2774**59-60-64	2809**61-63-66
52	2836	2678*/49-51-57	2793*/55-55-60	2825*/56-56-60	2853*/56-57-61
			2802**58-59-63	2839**60-62-65	2875**62-64-67
50	2910	2734*/49-53-58	2858*/57-57-61	2892*/58-58-62	2920*/58-59-63
			2863**58-58-63	2902**61-62-66	2940**64-65-68
48	2989	2789*/50-54-60	2926*/58-59-63	2962*/60-60-64	2989*/59-61-65
				2967**61-61-66	3007**64-65-69
46	3062	2840*/50-56-61	2982*/58-60-65	3026*/61-61-66	3061*/63-63-67
					3068**64-65-69
44	3133	2889*/50-57-63	3035*/59-61-66	3082*/62-63-68	3125*/64-64-69
					3127**65-65-70
42	3203	2936*/50-58-64	3087*/59-63-68	3137*/62-64-69	3184*/65-66-70
40	3271	2977*/50-59-65	3138*/59-64-69	3188*/62-65-70	3238*/65-67-72
38	3336	3014*/51-60-66	3184*/59-65-71	3236*/62-67-72	3288*/65-68-73
36	3403	3054*/51-61-67	3232*/60-66-72	3285*/63-68-73	3340*/66-69-74
34	3474	3088*/51-62-68	3274*/60-67-73	3331*/63-69-74	3387*/66-70-75
32	3516	3113*/52-62-69	3305*/60-68-74	3363*/63-69-75	3426*/66-71-76
30	3516	3121*/52-62-69	3312*/60-68-74	3370*/63-70-75	3437*/66-71-76
28	3517	3129*/52-63-70	3319*/61-68-74	3377*/64-70-75	3447*/66-71-76
26	3518	3137*/52-63-70	3325*/61-68-74	3383*/64-70-75	3457*/67-71-76
24	3518	3145*/53-63-70	3332*/61-69-74	3390*/64-70-76	3466*/67-71-76
22	3519	3154*/53-63-70	3339*/62-69-74	3396*/65-70-76	3476*/68-71-76
20	3519	3162*/53-64-70	3346*/62-69-75	3403*/65-71-76	3485*/68-71-76
18	3520	3171*/54-64-71	3352*/63-69-75	3410*/66-71-76	3491*/68-71-76
16	3520	3179*/54-64-71	3359*/63-69-75	3420*/66-71-76	3497*/69-71-76
14	3521	3187*/54-64-71	3366*/63-70-75	3431*/66-71-76	3503*/69-72-76
12	3522	3196*/55-65-71	3373*/64-70-75	3441*/67-71-76	3510*/70-72-76
10	3522	3205*/55-65-71	3379*/64-70-75	3451*/67-71-76	3516*/70-72-76
8	3523	3214*/55-65-72	3386*/65-70-75	3461*/67-71-76	3521*/71-72-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 520 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3047 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.46 PERCENT FOR TODA AND 0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05R	14	312	0	20	414	0	34	657	0
	41	706	0	55	1000	0	61	1062	0
	68	1068	0	104	1824	0	105	2107	0
	290	16601	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05R BASED ON A 15 DEGREE
 BANKED CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF
 300 DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 05R

EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

6	3524	3221*/56-65-72	3393*/65-70-76	3470*/68-71-76	3524*/70-72-77	3527**71-73-77
4	3524	3227*/56-66-72	3400*/66-70-76	3479*/68-71-76	3524*/70-72-77	3533**72-74-78
2	3524	3234*/56-66-72	3406*/66-71-76	3487*/69-71-76	3524*/69-72-77	3539**72-74-78
0	3524	3240*/57-66-72	3415*/66-71-76	3493*/69-71-76	3524*/69-72-77	3545**73-75-79
-2	3524	3247*/57-66-72	3425*/67-71-76	3499*/70-71-76	3524*/68-72-77	3551**73-75-79
-4	3525	3253*/58-66-73	3435*/67-71-76	3504*/70-72-76	3528*/68-72-77	3557**74-75-79
-6	3525	3259*/58-67-73	3445*/68-71-76	3510*/71-72-76	3531*/68-72-77	3562**74-76-80
-8	3525	3266*/59-67-73	3454*/68-71-76	3515*/71-72-76	3535*/68-72-77	3568**75-77-80
-10	3525	3272*/59-67-73	3463*/68-71-76	3520*/72-72-77	3538*/68-72-77	3574**75-77-81
				3522**72-74-78		

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 520 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3047 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.46 PERCENT FOR TODA AND 0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
05R	14	312	0	20	414	0	34	657	0
	41	706	0	55	1000	0	61	1062	0
	68	1068	0	104	1824	0	105	2107	0
	290	16601	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 05R BASED ON A 15 DEGREE

BANKED CLIMBING -LEFT- TURN, COMMENCED AT D2.0 MCT VOR TO A MAG COURSE OF 300 DEGREES INTERCEPT AND TRACK INBOUND ON THE WAL VOR R-084

ELEVATION 257 FT

RUNWAY 23L

EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2572	2544*/46-48-52	2656*/48-49-53	2689*/49-49-53	2720*/49-49-53
			2647**56-59-61	2673**59-62-65	2697**62-66-68
58A	2629	2585*/47-49-54	2705*/50-51-55	2738*/50-51-55	2771*/50-51-55
			2697**56-59-62	2724**59-63-65	2748**63-67-69
56A	2695	2633*/48-51-55	2762*/52-53-57	2797*/52-53-57	2830*/52-53-57
			2754**57-60-63	2782**60-64-66	2807**64-68-70
54A	2761	2680*/49-52-56	2819*/53-54-59	2854*/54-54-59	2889*/54-54-59
			2809**57-60-63	2837**60-64-67	2863**64-68-70
52	2836	2728*/49-53-58	2884*/55-57-61	2920*/56-57-61	2955*/56-57-61
			2870**57-61-64	2900**61-64-67	2928**64-68-71
50	2910	2775*/49-54-59	2947*/57-59-63	2984*/57-59-63	3020*/58-59-63
			2931**58-61-65	2961**61-65-68	2991**64-69-72
48	2989	2823*/50-55-61	2998*/58-61-65	3050*/59-61-65	3087*/60-61-65
			2994**58-61-65	3026**61-65-69	3056**64-69-72
46	3062	2867*/50-56-62	3046*/58-62-67	3112*/61-63-67	3151*/61-63-67
				3086**61-65-69	3117**64-69-73
44	3133	2910*/50-57-63	3092*/58-63-68	3156*/61-64-69	3212*/63-64-69
				3144**61-66-70	3177**64-70-73
42	3203	2953*/50-58-65	3138*/58-64-69	3201*/61-66-71	3273*/65-66-71
					3236**65-70-74
40	3271	2994*/51-59-66	3183*/59-65-70	3247*/62-67-72	3320*/65-68-72
					3293**65-70-75
38	3336	3032*/51-60-67	3224*/59-66-71	3289*/62-68-73	3361*/65-69-74
					3348**65-71-75
36	3403	3072*/51-61-68	3266*/59-67-73	3335*/62-69-74	3403*/65-71-76
34	3474	3107*/51-62-69	3305*/60-68-74	3375*/62-70-75	3472*/65-71-76
32	3516	3132*/51-63-70	3333*/60-69-74	3405*/63-71-76	3508*/65-72-76
30	3516	3140*/52-63-70	3342*/60-69-75	3416*/63-71-76	3516*/65-72-77
28	3517	3148*/52-63-70	3352*/60-69-75	3433*/63-71-76	3525*/65-72-77
					3522**65-72-77
26	3518	3156*/52-63-70	3361*/61-69-75	3449*/63-71-76	3536*/66-72-77
					3527**66-73-77
24	3518	3164*/53-64-70	3370*/61-70-75	3465*/63-71-76	3547*/66-72-77
					3533**66-73-78
22	3519	3172*/53-64-71	3379*/61-70-75	3481*/64-71-76	3558*/67-72-77
					3538**67-74-78
20	3519	3181*/53-64-71	3389*/62-70-75	3492*/64-71-76	3569*/68-72-77
					3544**67-74-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 550 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

23L	23	355	0	27	588	0	47	1074	0

	362	17011	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE
BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23L

EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
18	3520	3189*/54-64-71	3398*/62-70-76	3501*/64-71-76	3580*/68-72-77
					3549**68-75-79
16	3520	3197*/54-65-71	3407*/62-71-76	3510*/65-72-76	3591*/69-72-77
					3555**68-75-80
14	3521	3206*/54-65-71	3421*/63-71-76	3520*/65-72-77	3602*/69-72-77
					3560**69-76-80
12	3522	3215*/55-65-72	3438*/63-71-76	3529*/65-72-77	3614*/70-72-77
				3526**65-72-77	3566**69-77-80
10	3522	3223*/55-65-72	3455*/63-71-76	3540*/66-72-77	3625*/70-72-77
				3532**66-73-77	3572**70-77-81
8	3523	3232*/55-66-72	3471*/63-71-76	3551*/67-72-77	3636*/71-72-77
				3538**66-74-78	3577**70-78-81
6	3524	3241*/56-66-72	3487*/64-71-76	3563*/67-72-77	3642*/71-72-77
				3543**67-74-78	3583**71-78-82
4	3524	3250*/56-66-72	3496*/64-71-76	3574*/68-72-77	3648*/71-72-77
				3549**67-75-79	3589**71-79-82
2	3524	3258*/56-67-73	3506*/64-72-76	3585*/68-72-77	3654*/71-72-77
				3555**68-75-79	3594**72-79-83
0	3524	3267*/57-67-73	3515*/65-72-76	3597*/69-72-77	3660*/71-72-77
				3560**68-76-80	3600**72-80-83
-2	3524	3276*/57-67-73	3524*/65-72-77	3608*/70-72-77	3666*/71-72-77
				3566**69-76-80	3605**73-81-84
-4	3525	3285*/57-67-73	3534*/65-72-77	3619*/70-72-77	3672*/71-72-77
			3530**66-73-77	3571**69-77-81	3611**73-81-84
-6	3525	3295*/58-68-74	3545*/66-72-77	3631*/71-72-77	3678*/71-72-77
			3536**66-73-78	3577**70-77-81	3616**74-82-85
-8	3525	3304*/58-68-74	3557*/67-72-77	3639*/71-72-77	3684*/71-72-77
			3541**67-74-78	3582**70-78-82	3622**74-82-85
-10	3525	3314*/58-68-74	3568*/67-72-77	3646*/71-72-77	3690*/71-72-77
			3547**67-74-79	3588**71-79-82	3627**75-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 550 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23L	23	355	0	27	588	0	47	1074	0
	362	17011	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE
 BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
 COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23L (A) EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2572	2591*/48-49-53	2688*/48-49-53	2719*/49-49-53	2745*/49-49-53
		2589**49-51-55	2674**59-63-65	2697**62-66-68	2719**65-70-72
58A	2629	2639*/49-51-55	2738*/50-51-55	2770*/50-51-55	2798*/50-51-55
		2637**50-52-56	2725**59-63-65	2749**63-67-69	2770**66-71-72
56A	2695	2689*/50-52-57	2796*/52-53-57	2830*/52-53-57	2861*/52-53-57
			2781**60-64-66	2806**63-67-70	2828**66-71-73
54A	2761	2733*/51-54-58	2854*/53-54-59	2888*/54-54-59	2922*/54-54-59
			2836**60-64-67	2862**63-68-70	2886**67-72-74
52	2836	2783*/51-55-59	2920*/55-57-61	2955*/56-57-61	2989*/56-57-61
			2899**60-64-67	2927**63-68-71	2953**67-72-74
50	2910	2832*/51-56-61	2984*/57-59-63	3020*/57-59-63	3055*/58-59-63
			2960**60-65-68	2989**64-69-71	3017**67-72-75
48	2989	2881*/52-57-62	3051*/59-61-65	3088*/59-61-65	3124*/60-61-65
			3024**60-65-69	3054**64-69-72	3083**67-73-75
46	3062	2926*/52-58-64	3110*/61-63-67	3151*/61-63-67	3188*/61-63-67
			3085**60-65-69	3116**64-69-72	3146**67-73-76
44	3133	2969*/52-59-65	3153*/60-64-69	3213*/63-64-69	3251*/63-64-69
			3143**60-66-70	3176**64-69-73	3207**67-73-76
42	3203	3013*/52-60-66	3198*/61-66-71	3270*/64-66-71	3315*/65-66-71
				3234**64-70-74	3266**67-74-77
40	3271	3055*/53-61-67	3243*/61-67-72	3315*/64-68-72	3378*/67-68-72
				3291**64-70-74	3325**67-74-78
38	3336	3094*/53-62-68	3286*/61-68-73	3355*/64-69-74	3463*/68-69-74
				3346**64-70-75	3382**68-74-78
36	3403	3135*/53-63-69	3331*/61-69-74	3400*/64-71-76	3519*/68-71-76
					3452**67-75-78
34	3474	3170*/53-64-70	3372*/62-70-75	3464*/64-71-76	3554*/68-71-76
					3512**67-75-79
32	3516	3196*/53-65-71	3401*/62-71-76	3503*/64-72-76	3582*/68-72-76
					3547**67-75-79
30	3516	3204*/54-65-71	3410*/62-71-76	3512*/64-72-76	3592*/68-72-77
					3552**68-76-80
28	3517	3212*/54-65-72	3426*/62-71-76	3519*/64-72-77	3603*/69-72-77
				3519**65-72-77	3558**68-76-80
26	3518	3221*/54-65-72	3441*/62-71-76	3530*/65-72-77	3614*/69-72-77
				3524**65-73-77	3563**69-77-80
24	3518	3229*/55-66-72	3457*/63-71-76	3541*/66-72-77	3625*/70-72-77
				3530**65-73-78	3568**69-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 560 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

23L (A)	23	355	0	27	588	0	47	1074	0
	362	17011	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE
 BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
 COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23L (A) EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3519	3237*/55-66-72	3473*/63-71-76	3552*/66-72-77	3635*/70-72-77
				3535**66-74-78	3574**70-78-81
20	3519	3246*/55-66-72	3488*/63-71-76	3563*/67-72-77	3642*/71-72-77
				3541**66-74-78	3579**70-78-82
18	3520	3254*/56-66-73	3496*/63-71-76	3574*/67-72-77	3648*/71-72-77
				3546**67-75-79	3585**71-79-82
16	3520	3262*/56-67-73	3505*/64-72-76	3585*/68-72-77	3654*/71-72-77
				3552**67-75-79	3590**71-79-83
14	3521	3271*/56-67-73	3515*/64-72-76	3596*/68-72-77	3660*/71-72-77
				3557**68-76-80	3596**71-80-83
12	3522	3280*/57-67-73	3522*/64-72-77	3607*/69-72-77	3666*/71-72-77
			3523**65-72-77	3563**68-76-80	3601**72-80-84
10	3522	3289*/57-67-73	3534*/65-72-77	3618*/70-72-77	3673*/71-72-77
			3529**65-73-77	3568**69-77-81	3607**72-81-84
8	3523	3299*/57-68-74	3545*/66-72-77	3629*/70-72-77	3679*/71-72-77
			3534**65-73-78	3574**69-77-81	3612**73-81-85
6	3524	3308*/58-68-74	3556*/66-72-77	3641*/71-72-77	3685*/71-72-77
			3540**66-74-78	3580**70-78-82	3618**73-82-85
4	3524	3317*/58-68-74	3567*/67-72-77	3648*/71-72-77	3691*/71-72-77
			3546**66-74-79	3585**70-78-82	3623**74-83-86
2	3524	3326*/58-68-74	3579*/67-72-77	3654*/71-72-77	3697*/71-72-77
			3552**67-75-79	3591**71-79-83	3629**74-83-86
0	3524	3336*/59-69-74	3590*/68-72-77	3660*/71-72-77	3703*/71-72-77
			3557**67-75-79	3597**71-80-83	3635**75-84-87
-2	3524	3345*/59-69-75	3601*/69-72-77	3665*/71-72-77	3708*/71-72-77
			3562**68-76-80	3602**72-80-84	3640**76-84-87
-4	3525	3355*/59-69-75	3613*/69-72-77	3671*/71-72-77	3714*/71-72-77
			3568**68-77-80	3607**72-81-84	3646**76-85-88
-6	3525	3364*/60-69-75	3624*/70-72-77	3677*/71-72-77	3720*/71-72-77
			3573**69-77-81	3613**73-81-85	3651**77-86-88
-8	3525	3374*/60-70-75	3635*/70-72-77	3683*/71-72-77	3726*/71-72-77
			3579**69-78-81	3618**73-82-85	3656**77-86-89
-10	3525	3383*/60-70-75	3645*/71-72-77	3689*/71-72-77	3732*/71-72-77
			3584**70-78-82	3624**74-83-86	3662**78-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 560 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.46 PERCENT FOR TODA AND -0.46 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23L (A)	23	355	0	27	588	0	47	1074	0
	362	17011	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23L BASED ON A 15 DEGREE
 BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
 COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23R

EGCC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MANCHESTER

MANCHESTER

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2572	2502*/43-47-51	2640*/48-49-53	2673*/49-49-53	2705*/49-49-53
			2625**52-56-59	2655**56-60-62	2681**59-64-66
58A	2629	2542*/44-48-52	2689*/50-51-55	2723*/50-51-55	2756*/50-51-55
			2674**53-56-60	2704**56-60-63	2731**60-64-66
56A	2695	2588*/44-49-54	2745*/52-53-57	2780*/52-53-57	2815*/52-53-57
			2731**54-57-60	2762**57-61-64	2789**60-65-67
54A	2761	2634*/45-50-55	2802*/53-54-59	2837*/54-54-59	2873*/54-54-59
			2787**54-57-61	2817**57-61-64	2845**61-65-68
52	2836	2686*/46-52-57	2858*/54-57-61	2902*/56-57-61	2938*/56-57-61
			2848**54-58-62	2879**58-62-65	2908**61-66-68
50	2910	2734*/47-53-58	2906*/54-58-63	2966*/57-59-63	3002*/58-59-63
				2940**58-62-66	2970**61-66-69
48	2989	2781*/47-54-60	2957*/55-60-64	3020*/58-61-65	3069*/60-61-65
				3003**58-62-66	3035**61-66-70
46	3062	2824*/47-55-61	3003*/55-61-65	3064*/58-63-67	3132*/61-63-67
					3096**61-67-70
44	3133	2866*/47-56-62	3049*/55-62-67	3111*/58-64-68	3179*/62-64-69
					3155**61-67-71
42	3203	2908*/48-57-63	3094*/56-63-68	3157*/59-65-70	3222*/62-66-71
					3212**62-67-72
40	3271	2949*/48-58-65	3137*/56-64-69	3202*/59-66-71	3267*/62-68-72
38	3336	2987*/48-59-66	3177*/56-65-70	3243*/59-67-72	3310*/62-69-73
36	3403	3026*/48-60-67	3219*/57-66-72	3286*/60-68-73	3357*/62-70-75
34	3474	3059*/49-61-68	3256*/57-67-73	3326*/60-69-74	3397*/63-71-76
32	3516	3084*/49-61-68	3284*/57-67-73	3355*/60-69-75	3440*/63-71-76
30	3516	3092*/49-61-69	3293*/58-68-73	3364*/60-70-75	3457*/63-71-76
28	3517	3100*/49-62-69	3302*/58-68-74	3374*/61-70-75	3473*/63-71-76
26	3518	3108*/50-62-69	3311*/58-68-74	3383*/61-70-75	3488*/63-71-76
24	3518	3117*/50-62-69	3320*/58-68-74	3392*/61-70-76	3497*/63-71-76
22	3519	3125*/50-62-69	3329*/59-69-74	3402*/62-71-76	3506*/64-72-76
20	3519	3133*/51-63-70	3338*/59-69-74	3411*/62-71-76	3515*/64-72-76
18	3520	3142*/51-63-70	3348*/59-69-75	3428*/62-71-76	3525*/65-72-77
					3522**65-72-77
16	3520	3150*/51-63-70	3357*/60-69-75	3445*/62-71-76	3536*/65-72-77
					3528**65-73-77
14	3521	3158*/52-64-70	3367*/60-70-75	3461*/63-71-76	3546*/66-72-77
					3534**66-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 510 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2897 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.52 PERCENT FOR TODA AND -0.52 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23R	8	307	0	12	308	0	14	419	0
	22	428	0	24	638	0	28	657	0
	38	852	0	347	18650	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23R BASED ON A 15 DEGREE
 BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
 COURSE OF 300 DEGREES

ELEVATION 257 FT

RUNWAY 23R EGCC

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

MANCHESTER
MANCHESTER
DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
12	3522	3167*/52-64-70	3376*/61-70-75	3478*/63-71-76	3557*/66-72-77 3540**66-74-78
10	3522	3176*/52-64-71	3386*/61-70-75	3491*/63-71-76	3569*/67-72-77 3545**66-74-79
8	3523	3184*/52-64-71	3396*/61-70-76	3501*/63-71-76	3580*/67-72-77 3551**67-75-79
6	3524	3193*/53-65-71	3406*/62-71-76	3510*/64-72-76	3591*/68-72-77 3557**67-75-79
4	3524	3202*/53-65-71	3419*/62-71-76	3520*/64-72-77	3603*/69-72-77 3562**68-76-80
2	3524	3210*/54-65-72	3436*/62-71-76	3530*/65-72-77	3614*/69-72-77 3527**65-72-77
0	3524	3219*/54-65-72	3453*/62-71-76	3540*/65-72-77	3568**68-77-80 3626*/70-72-77
-2	3524	3228*/54-66-72	3469*/63-71-76	3551*/66-72-77	3533**65-73-77 3573**69-77-81
-4	3525	3237*/55-66-72	3485*/63-71-76	3563*/66-72-77	3637*/70-72-77 3538**66-73-78
-6	3525	3245*/55-66-72	3495*/63-71-76	3574*/67-72-77	3579**69-78-81 3544**66-74-78
-8	3525	3254*/55-66-73	3505*/64-72-76	3586*/68-72-77	3584**70-78-82 3657*/71-72-77
-10	3525	3263*/56-67-73	3514*/64-72-76	3597*/68-72-77	3590**70-79-82 3555**67-75-79
				3561**68-76-80	3596**71-79-83 3669*/71-72-77 3601**71-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 510 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2897 M LONG WITH 300 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.52 PERCENT FOR TODA AND -0.52 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
23R	8	307	0	12	308	0	14	419	0
	22	428	0	24	638	0	28	657	0
	38	852	0	347	18650	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 23R BASED ON A 15 DEGREE
BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D4.3 MCT VOR/DME TO A MAG
COURSE OF 300 DEGREES

ELEVATION 83 FT RUNWAY 09L EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2589	2635*/47-50-54	2700*/48-50-54	2721*/49-50-54	2741*/49-50-54
		2689**61-65-67	2754**68-74-75	2754**69-74-75	2754**69-74-75
58A	2646	2689*/49-51-55	2756*/50-51-55	2777*/50-51-55	2798*/51-51-55
		2740**61-65-68	2811**70-76-77	2811**70-76-77	2811**71-76-77
56A	2712	2752*/50-53-57	2821*/52-53-57	2843*/52-53-57	2864*/52-53-57
		2799**62-66-68	2878**72-78-79	2878**72-78-79	2878**72-78-79
54	2780	2814*/52-55-59	2887*/53-55-59	2910*/54-55-59	2932*/54-55-59
		2860**62-66-68	2940**72-79-80	2949**73-80-81	2949**74-80-81
52	2857	2883*/53-57-61	2959*/55-57-61	2983*/55-57-61	3006*/56-57-61
		2925**62-66-69	3011**72-79-80	3031**75-83-84	3031**76-83-84
50	2931	2951*/54-59-63	3029*/56-59-63	3054*/57-59-63	3078*/57-59-63
		2987**62-66-69	3078**72-79-81	3101**76-83-85	3110**77-85-86
48	3009	3019*/56-61-66	3101*/58-61-66	3127*/58-61-66	3152*/59-61-66
		3050**62-66-70	3146**72-79-81	3170**76-84-85	3189**79-87-88
46	3082	3084*/57-63-67	3169*/59-63-67	3196*/60-63-67	3222*/60-63-67
		3110**62-66-70	3211**72-80-82	3237**76-84-86	3260**79-88-89
44	3154	3154*/59-65-69	3235*/60-65-69	3263*/61-65-69	3291*/61-65-69
		3168**62-67-71	3275**72-80-82	3304**76-84-86	3330**79-88-90
42	3224	3224*/62-67-71	3300*/61-67-71	3331*/62-67-71	3360*/63-67-71
		3225**62-67-71	3338**72-80-83	3369**76-84-86	3396**79-88-90
40	3293	3280*/62-68-73	3366*/62-68-73	3397*/63-68-73	3436*/64-68-73
			3400**72-81-83	3444**76-85-87	3487**79-88-90
38	3358	3332*/62-69-74	3435*/63-70-75	3480*/64-70-75	3511*/65-70-75
			3481**72-81-83	3516**75-85-87	3546**79-89-90
36	3430	3386*/62-70-75	3510*/64-71-76	3541*/65-71-76	3571*/66-71-76
			3538**72-81-84	3573**75-85-87	3604**79-89-91
34	3498	3446*/62-71-76	3559*/64-71-76	3592*/65-71-76	3623*/65-71-76
			3590**72-81-84	3626**75-85-88	3660**79-89-91
32	3525	3480*/62-71-76	3585*/64-72-77	3618*/65-72-77	3650*/66-72-77
			3616**72-82-85	3653**76-86-88	3686**79-90-92
30	3526	3488*/62-71-76	3589*/64-72-77	3622*/65-72-77	3654*/66-72-77
			3621**72-82-85	3658**76-86-89	3691**80-90-92
28	3527	3493*/63-71-76	3592*/64-72-77	3625*/65-72-77	3657*/66-72-77
			3626**73-83-86	3663**77-87-89	3696**80-91-93
26	3528	3499*/63-71-76	3596*/64-72-77	3629*/65-72-77	3661*/66-72-77
			3632**73-83-86	3668**77-87-90	3701**81-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 950 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3901 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09L	13	268	0	17	330	0	19	361	0
	26	491	0	29	512	0	59	1201	0
	82	1626	0	87	1673	0	89	1677	0
	248	17290	0	258	17491	0	575	17612	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT RUNWAY 09L EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3528	3505*/63-72-76	3600*/65-72-77	3632*/65-72-77	3664*/66-72-77
			3637**74-84-87	3673**78-88-90	3706**81-92-94
22	3529	3510*/64-72-76	3603*/65-72-77	3636*/65-72-77	3668*/66-72-77
			3642**74-84-87	3679**78-88-91	3711**82-93-94
20	3530	3516*/64-72-77	3607*/65-72-77	3639*/66-72-77	3671*/66-72-77
			3648**75-85-88	3684**78-89-91	3716**82-93-95
18	3531	3522*/65-72-77	3610*/65-72-77	3643*/66-72-77	3674*/66-72-77
			3653**75-85-88	3689**79-90-92	3721**83-94-95
16	3531	3527*/65-72-77	3614*/65-72-77	3646*/66-72-77	3678*/67-72-77
			3658**76-86-89	3694**80-90-92	3726**83-94-96
14	3532	3532*/65-72-77	3618*/65-72-77	3650*/66-72-77	3681*/67-72-77
			3664**76-86-89	3700**80-91-93	3732**84-95-97
12	3533	3533*/65-72-77	3621*/65-72-77	3654*/66-72-77	3685*/67-72-77
		3539**66-73-77	3669**77-87-90	3705**81-91-93	3737**84-95-97
10	3534	3534*/65-72-77	3625*/65-72-77	3657*/66-72-77	3688*/67-72-77
		3544**67-73-78	3675**77-88-90	3710**81-92-94	3742**85-96-98
8	3534	3534*/64-72-77	3628*/65-72-77	3660*/66-72-77	3691*/67-72-77
		3550**67-74-78	3680**78-88-91	3715**82-92-94	3746**85-97-98
6	3535	3535*/64-72-77	3632*/65-72-77	3664*/66-72-77	3695*/67-72-77
		3556**67-75-79	3685**78-89-91	3721**82-93-95	3751**86-97-99
4	3535	3535*/63-72-77	3635*/65-72-77	3667*/66-72-77	3698*/67-72-77
		3561**68-75-79	3691**79-89-92	3726**83-94-95	3756**87-98-99
2	3536	3537*/63-72-77	3638*/66-72-77	3670*/66-72-77	3701*/67-72-77
		3567**68-76-80	3696**79-90-92	3731**83-94-96	3761**87-99-00
0	3536	3540*/63-72-77	3641*/66-72-77	3673*/66-72-77	3703*/67-72-77
		3572**69-76-80	3701**80-90-93	3736**84-95-97	3765**88-99-00
-2	3536	3544*/63-72-77	3644*/66-72-77	3676*/67-72-77	3706*/67-72-77
		3577**69-77-81	3706**80-91-93	3741**84-96-97	3770**88-00-01
-4	3536	3547*/63-72-77	3647*/66-72-77	3678*/67-72-77	3709*/67-72-77
		3583**70-77-81	3711**81-92-94	3745**85-96-98	3775**89-00-02
-6	3536	3550*/63-72-77	3650*/66-72-77	3681*/67-72-77	3712*/67-72-77
		3588**70-78-81	3716**82-92-94	3750**85-97-98	3779**90-01-02
-8	3536	3553*/63-72-77	3653*/66-72-77	3684*/67-72-77	3714*/68-72-77
		3594**71-78-82	3721**82-93-95	3754**86-97-99	3780**90-01-03
-10	3536	3557*/63-72-77	3656*/66-72-77	3687*/67-72-77	3717*/68-72-77
		3599**71-79-82	3726**83-94-95	3759**87-98-00	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 970 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3901 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09L	13	268	0	17	330	0	19	361	0
	26	491	0	29	512	0	59	1201	0
	82	1626	0	87	1673	0	89	1677	0
	248	17290	0	258	17491	0	575	17612	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT RUNWAY 09R EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 23-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2589	2605*/47-50-54	2687*/48-50-54	2701*/49-50-54	2714*/49-50-54
		2622**52-54-57	2712**62-66-68	2736**66-71-72	2754**69-74-75
58A	2646	2655*/49-51-55	2740*/50-51-55	2760*/50-51-55	2773*/51-51-55
		2672**53-54-58	2764**63-67-69	2788**67-71-73	2809**71-76-77
56A	2712	2713*/50-53-57	2802*/52-53-57	2824*/52-53-57	2838*/52-53-57
		2729**54-56-59	2823**64-68-70	2848**68-72-74	2870**71-77-78
54	2780	2780*/53-55-59	2865*/53-55-59	2891*/54-55-59	2905*/54-55-59
		2788**56-56-60	2884**65-69-71	2911**69-73-75	2934**72-77-79
52	2857	2854*/57-57-61	2932*/55-57-61	2963*/55-57-61	2979*/56-57-61
			2954**66-70-72	2982**70-74-76	3007**73-78-80
50	2931	2918*/59-59-63	2996*/56-59-63	3028*/57-59-63	3050*/57-59-63
			3021**67-71-73	3050**71-75-77	3077**74-79-81
48	3009	2983*/59-60-65	3062*/58-61-66	3096*/58-61-66	3123*/59-61-66
			3090**68-71-74	3120**72-76-78	3148**75-80-82
46	3082	3035*/59-62-66	3125*/59-63-67	3159*/60-63-67	3193*/60-63-67
			3154**69-72-75	3185**72-76-79	3214**76-80-82
44	3154	3086*/60-63-68	3185*/60-65-69	3221*/61-65-69	3256*/61-65-69
			3214**69-72-75	3247**72-76-79	3277**76-80-83
42	3224	3135*/60-64-69	3244*/61-67-71	3281*/62-67-71	3319*/63-67-71
			3273**69-72-76	3308**72-77-80	3341**76-81-83
40	3293	3182*/60-65-70	3303*/62-68-73	3343*/63-68-73	3382*/64-68-73
			3332**69-73-77	3368**72-77-80	3402**76-81-84
38	3358	3225*/60-66-72	3358*/64-70-75	3398*/64-70-75	3460*/65-70-75
			3387**69-73-77	3432**72-77-80	3485**75-81-84
36	3430	3270*/60-67-73	3430*/65-71-76	3486*/65-71-76	3525*/66-71-76
			3459**69-73-77	3505**72-77-81	3541**76-81-84
34	3498	3311*/60-68-74	3498*/65-71-76	3528*/65-71-76	3569*/65-71-76
			3516**69-73-78	3556**72-77-81	3593**76-82-85
32	3525	3333*/61-69-74	3525*/66-72-77	3553*/65-72-77	3594*/66-72-77
			3541**69-74-78	3581**72-78-82	3619**76-82-85
30	3526	3341*/61-69-74	3526*/66-72-77	3558*/65-72-77	3599*/66-72-77
			3546**69-74-78	3586**73-78-82	3624**76-83-86
28	3527	3349*/61-69-75	3527*/65-72-77	3563*/65-72-77	3604*/66-72-77
			3552**70-75-79	3592**73-79-82	3630**77-83-86
26	3528	3357*/62-69-75	3528*/65-72-77	3568*/65-72-77	3609*/66-72-77
			3557**70-75-79	3597**74-79-83	3635**77-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	12	296	0	17	319	0	21	334	0
	27	365	0	32	392	0	35	462	0
	40	479	0	240	17300	0	289	17350	0
	449	17773	0	502	33542	0	620	46964	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT RUNWAY 09R EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 23-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3528	3365*/62-69-75	3532*/65-72-77	3574*/65-72-77	3614*/66-72-77
			3563**71-76-80	3603**74-80-83	3641**78-84-87
22	3529	3373*/62-70-75	3537*/65-72-77	3579*/66-72-77	3619*/66-72-77
			3568**71-76-80	3608**75-80-84	3646**78-85-87
20	3530	3381*/63-70-75	3542*/65-72-77	3584*/66-72-77	3624*/66-72-77
			3574**72-77-81	3613**75-81-84	3652**79-85-88
18	3531	3389*/63-70-76	3547*/65-72-77	3589*/66-72-77	3629*/66-72-77
			3579**72-77-81	3619**76-82-85	3657**79-86-88
16	3531	3397*/63-70-76	3552*/65-72-77	3594*/66-72-77	3634*/67-72-77
			3585**73-78-82	3624**76-82-85	3662**80-86-89
14	3532	3405*/64-71-76	3558*/65-72-77	3599*/66-72-77	3639*/67-72-77
			3590**73-78-82	3630**77-83-86	3668**80-87-89
12	3533	3414*/64-71-76	3563*/65-72-77	3604*/66-72-77	3645*/67-72-77
			3596**74-79-82	3636**77-83-86	3673**81-87-90
10	3534	3428*/64-71-76	3568*/65-72-77	3609*/66-72-77	3650*/67-72-77
			3602**74-79-83	3641**78-84-87	3679**81-88-90
8	3534	3440*/65-71-76	3573*/65-72-77	3614*/66-72-77	3655*/67-72-77
			3608**74-80-83	3647**78-84-87	3685**82-89-91
6	3535	3453*/65-71-76	3578*/65-72-77	3619*/66-72-77	3660*/67-72-77
			3613**75-80-84	3653**79-85-88	3690**82-89-92
4	3535	3465*/65-71-76	3583*/65-72-77	3624*/66-72-77	3664*/67-72-77
			3619**75-81-84	3658**79-85-88	3696**83-90-92
2	3536	3477*/66-71-76	3588*/66-72-77	3629*/66-72-77	3669*/67-72-77
			3624**76-82-85	3664**80-86-89	3701**83-90-93
0	3536	3487*/66-71-76	3593*/66-72-77	3634*/66-72-77	3674*/67-72-77
			3630**77-82-85	3669**80-87-89	3706**84-91-93
-2	3536	3495*/66-71-76	3597*/66-72-77	3638*/67-72-77	3678*/67-72-77
			3635**77-83-86	3674**81-87-90	3711**85-92-94
-4	3536	3502*/67-71-76	3602*/66-72-77	3643*/67-72-77	3683*/67-72-77
			3641**78-83-86	3680**81-88-90	3716**85-92-94
-6	3536	3510*/67-72-76	3607*/66-72-77	3647*/67-72-77	3687*/67-72-77
			3646**78-84-87	3685**82-88-91	3721**86-93-95
-8	3536	3517*/68-72-77	3611*/66-72-77	3652*/67-72-77	3690*/68-72-77
			3652**79-85-87	3691**82-89-91	3727**86-94-95
-10	3536	3524*/68-72-77	3616*/66-72-77	3657*/67-72-77	3692*/68-72-77
			3657**79-85-88	3696**83-90-92	3732**87-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	12	296	0	17	319	0	21	334	0
	27	365	0	32	392	0	35	462	0
	40	479	0	240	17300	0	289	17350	0
	449	17773	0	502	33542	0	620	46964	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT

RUNWAY 27L EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

HEATROW

LONDON

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2589	2589*/49-50-54	2658*/48-50-54	2682*/49-50-54	2705*/49-50-54
		2605**55-58-61	2704**61-65-67	2732**65-70-71	2753**69-74-75
58A	2646	2642*/51-51-55	2712*/50-51-55	2736*/50-51-55	2760*/51-51-55
		2655**55-58-61	2754**62-66-68	2783**66-71-72	2805**70-75-76
56A	2712	2702*/53-53-57	2775*/52-53-57	2800*/52-53-57	2824*/52-53-57
		2713**56-59-62	2814**63-66-69	2843**67-71-73	2866**71-76-77
54	2780	2763*/54-54-59	2839*/53-55-59	2865*/54-55-59	2890*/54-55-59
		2772**57-60-63	2875**64-67-70	2906**68-72-74	2930**72-76-78
52	2857	2831*/56-56-61	2908*/55-57-61	2935*/55-57-61	2962*/56-57-61
		2838**59-61-65	2944**65-68-71	2977**69-73-75	3002**73-77-79
50	2931	2898*/58-58-63	2975*/56-59-63	3003*/57-59-63	3031*/57-59-63
		2902**59-61-65	3011**66-69-72	3045**70-74-76	3072**74-78-80
48	3009	2966*/60-60-64	3043*/58-61-66	3073*/58-61-66	3102*/59-61-66
		2968**60-61-66	3079**67-70-73	3114**71-75-77	3143**75-79-81
46	3082	3026*/60-61-66	3107*/59-63-67	3138*/60-63-67	3168*/60-63-67
			3145**68-71-74	3182**72-75-78	3211**76-80-82
44	3154	3080*/60-63-68	3170*/60-65-69	3202*/61-65-69	3233*/61-65-69
			3209**69-71-75	3244**72-76-79	3275**76-80-82
42	3224	3130*/60-64-69	3231*/61-67-71	3265*/62-67-71	3298*/63-67-71
			3267**69-72-75	3305**73-76-79	3339**76-80-83
40	3293	3177*/60-65-70	3293*/63-68-73	3327*/63-68-73	3362*/64-68-73
			3327**69-72-76	3366**73-77-80	3400**76-81-83
38	3358	3219*/60-66-71	3358*/65-70-75	3385*/64-70-75	3428*/65-70-75
			3381**69-72-77	3428**73-77-80	3481**76-81-83
36	3430	3264*/60-67-73	3430*/67-71-76	3466*/65-71-76	3506*/65-71-76
			3450**69-73-77	3502**72-77-80	3538**76-81-84
34	3498	3304*/61-68-74	3498*/67-71-76	3522*/65-71-76	3554*/65-71-76
			3510**69-73-77	3552**72-77-81	3590**76-81-84
32	3525	3326*/61-68-74	3525*/67-72-77	3548*/66-72-77	3580*/66-72-77
			3534**69-73-77	3578**73-78-81	3616**76-82-85
30	3526	3334*/61-69-74	3526*/67-72-77	3552*/66-72-77	3584*/66-72-77
			3540**70-74-78	3583**73-78-82	3621**77-82-85
28	3527	3342*/61-69-75	3527*/67-72-77	3556*/66-72-77	3588*/66-72-77
			3545**70-74-78	3588**73-79-82	3627**77-83-86
26	3528	3350*/62-69-75	3528*/66-72-77	3559*/66-72-77	3592*/66-72-77
			3551**70-75-79	3594**74-79-83	3632**77-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27L	22	207	0	23	226	0	39	414	0
	78	1156	0	250	11440	0	334	32836	0
	387	33781	0	388	50668	0	401	50669	0
	437	53607	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT RUNWAY 27L EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3528	3358*/62-69-75	3532*/66-72-77	3563*/66-72-77	3596*/66-72-77
			3557**71-75-79	3599**74-80-83	3638**78-84-87
22	3529	3366*/63-70-75	3536*/66-72-77	3567*/66-72-77	3600*/66-72-77
			3562**71-76-80	3605**75-80-83	3643**78-84-87
20	3530	3374*/63-70-75	3539*/66-72-77	3571*/66-72-77	3604*/66-72-77
			3568**72-76-80	3610**75-81-84	3649**79-85-88
18	3531	3382*/63-70-75	3543*/66-72-77	3574*/66-72-77	3608*/66-72-77
			3573**72-77-81	3616**76-81-84	3654**79-85-88
16	3531	3390*/64-70-76	3547*/66-72-77	3578*/66-72-77	3612*/66-72-77
			3578**73-77-81	3621**76-82-85	3659**80-86-89
14	3532	3399*/64-70-76	3550*/66-72-77	3581*/66-72-77	3616*/67-72-77
			3584**73-78-81	3627**77-82-85	3665**80-87-89
12	3533	3407*/64-71-76	3554*/66-72-77	3585*/66-72-77	3621*/67-72-77
			3590**74-78-82	3633**77-83-86	3671**81-87-90
10	3534	3418*/65-71-76	3558*/66-72-77	3589*/66-72-77	3625*/67-72-77
			3596**74-79-82	3638**78-83-86	3676**81-88-90
8	3534	3431*/65-71-76	3562*/66-72-77	3593*/66-72-77	3629*/67-72-77
			3602**75-79-83	3644**78-84-87	3682**82-88-91
6	3535	3444*/65-71-76	3565*/66-72-77	3597*/66-72-77	3632*/67-72-77
			3607**75-80-83	3650**79-85-87	3687**83-89-91
4	3535	3454*/66-71-76	3569*/66-72-77	3601*/66-72-77	3636*/67-72-77
			3613**76-80-84	3656**79-85-88	3693**83-89-92
2	3536	3463*/66-71-76	3572*/66-72-77	3604*/66-72-77	3640*/67-72-77
			3618**76-81-84	3661**80-86-88	3698**84-90-92
0	3536	3472*/66-71-76	3575*/66-72-77	3608*/66-72-77	3669*/72-72-77
			3624**77-82-85	3666**80-86-89	3704**84-91-93
-2	3536	3481*/67-71-76	3579*/66-72-77	3611*/66-72-77	3672*/72-72-77
			3629**77-82-85	3671**81-87-89	3709**85-91-93
-4	3536	3489*/67-71-76	3582*/66-72-77	3615*/67-72-77	3675*/72-72-77
			3635**78-83-86	3677**81-88-90	3714**85-92-94
-6	3536	3494*/68-71-76	3585*/66-72-77	3619*/67-72-77	3666*/70-72-77
			3640**78-83-86	3682**82-88-91	3719**86-93-95
-8	3536	3500*/68-71-76	3588*/66-72-77	3622*/67-72-77	3657*/67-72-77
			3646**79-84-87	3688**83-89-91	3724**86-93-95
-10	3536	3506*/69-72-76	3591*/66-72-77	3626*/67-72-77	3660*/68-72-77
			3652**79-85-87	3693**83-89-92	3729**87-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27L	22	207	0	23	226	0	39	414	0
	78	1156	0	250	11440	0	334	32836	0
	387	33781	0	388	50668	0	401	50669	0
	437	53607	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT RUNWAY 27R EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2589	2589*/47-50-54	2663*/48-50-54	2687*/49-50-54	2710*/49-50-54
		2613**55-58-61	2711**62-66-68	2737**66-71-72	2754**69-74-75
58A	2646	2646*/50-51-55	2717*/50-51-55	2742*/50-51-55	2765*/51-51-55
		2663**56-59-62	2762**63-67-69	2790**67-72-73	2811**71-76-77
56A	2712	2710*/53-53-57	2780*/52-53-57	2805*/52-53-57	2830*/52-53-57
		2721**57-60-63	2821**64-68-70	2850**68-72-74	2873**72-77-78
54	2780	2771*/55-55-59	2845*/53-55-59	2870*/54-55-59	2896*/54-55-59
		2781**58-60-64	2883**65-68-71	2912**69-73-75	2937**73-78-79
52	2857	2840*/57-57-61	2914*/55-57-61	2941*/55-57-61	2968*/56-57-61
		2847**59-62-65	2952**66-69-72	2984**70-74-76	3011**74-79-80
50	2931	2906*/58-58-63	2981*/56-59-63	3009*/57-59-63	3037*/57-59-63
		2911**60-62-66	3019**67-70-73	3052**71-75-77	3081**75-80-81
48	3009	2975*/60-60-65	3050*/58-61-66	3079*/58-61-66	3108*/59-61-66
		2978**61-63-67	3088**68-71-74	3122**72-76-78	3151**76-80-82
46	3082	3038*/62-62-66	3114*/59-63-67	3145*/60-63-67	3175*/60-63-67
		3041**64-64-68	3154**69-72-75	3190**73-77-79	3221**77-81-83
44	3154	3101*/63-63-68	3177*/60-65-69	3209*/61-65-69	3240*/61-65-69
		3103**64-66-70	3218**70-73-76	3256**74-77-80	3289**78-82-84
42	3224	3162*/64-65-70	3239*/61-67-71	3272*/62-67-71	3305*/63-67-71
			3281**72-74-78	3321**75-78-81	3356**79-83-85
40	3293	3214*/64-66-71	3299*/62-68-73	3335*/63-68-73	3370*/64-68-73
			3345**72-75-78	3386**76-79-82	3430**80-83-86
38	3358	3260*/64-67-72	3358*/64-70-75	3393*/64-70-75	3440*/65-70-75
			3405**73-75-79	3465**76-79-82	3507**79-84-86
36	3430	3308*/64-68-74	3430*/65-71-76	3475*/65-71-76	3514*/66-71-76
			3486**73-75-79	3527**76-80-83	3564**80-84-86
34	3498	3352*/64-69-75	3498*/65-71-76	3525*/65-71-76	3561*/65-71-76
			3536**73-75-79	3578**76-80-83	3617**80-84-87
32	3525	3374*/64-70-75	3525*/66-72-77	3551*/65-72-77	3587*/66-72-77
			3561**73-76-80	3604**76-80-84	3643**80-85-87
30	3526	3382*/64-70-75	3526*/66-72-77	3555*/65-72-77	3591*/66-72-77
			3566**73-76-80	3609**77-81-84	3648**80-85-88
28	3527	3389*/65-70-76	3527*/65-72-77	3559*/65-72-77	3595*/66-72-77
			3572**74-77-81	3614**77-81-85	3653**81-86-88
26	3528	3396*/65-70-76	3528*/65-72-77	3563*/65-72-77	3600*/66-72-77
			3577**74-77-81	3620**78-82-85	3658**81-86-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3882 M LONG WITH 78 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27R	9	247	0	25	375	0	42	451	0
	44	485	0	50	503	0	53	518	0
	68	843	0	76	950	0	240	36342	0
	329	43268	0	332	43419	0	450	55542	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 83 FT RUNWAY 27R EGLL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF HEATROW
LONDON
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3528	3404*/66-71-76	3530*/65-72-77	3567*/65-72-77	3604*/66-72-77
			3583**75-78-82	3625**78-82-85	3664**82-87-89
22	3529	3411*/66-71-76	3534*/65-72-77	3572*/65-72-77	3608*/66-72-77
			3588**75-78-82	3631**79-83-86	3669**82-87-90
20	3530	3423*/66-71-76	3538*/65-72-77	3576*/66-72-77	3612*/66-72-77
			3594**76-79-82	3636**79-83-86	3675**83-88-90
18	3531	3435*/67-71-76	3543*/65-72-77	3580*/66-72-77	3616*/66-72-77
			3600**76-79-83	3642**80-84-87	3680**83-88-91
16	3531	3445*/67-71-76	3547*/65-72-77	3584*/66-72-77	3620*/67-72-77
			3605**77-80-83	3648**80-85-87	3686**84-89-91
14	3532	3455*/67-71-76	3551*/65-72-77	3588*/66-72-77	3624*/67-72-77
			3611**77-80-84	3653**81-85-88	3691**84-90-92
12	3533	3464*/68-71-76	3556*/65-72-77	3592*/66-72-77	3628*/67-72-77
			3617**78-81-84	3659**81-86-88	3697**85-90-92
10	3534	3473*/68-71-76	3560*/65-72-77	3596*/66-72-77	3632*/67-72-77
			3622**78-82-85	3664**82-86-89	3702**85-91-93
8	3534	3482*/68-71-76	3564*/65-72-77	3600*/66-72-77	3636*/67-72-77
			3628**79-82-85	3670**82-87-89	3708**86-91-93
6	3535	3490*/69-71-76	3568*/65-72-77	3604*/66-72-77	3640*/67-72-77
			3634**79-83-86	3675**83-88-90	3713**87-92-94
4	3535	3496*/69-71-76	3572*/65-72-77	3608*/66-72-77	3643*/67-72-77
			3639**80-83-86	3681**83-88-91	3718**87-93-95
2	3536	3501*/70-71-76	3576*/66-72-77	3612*/66-72-77	3647*/67-72-77
			3645**80-84-87	3686**84-89-91	3724**88-93-95
0	3536	3507*/70-72-76	3579*/66-72-77	3615*/66-72-77	3651*/67-72-77
			3651**81-85-87	3692**84-89-92	3729**88-94-96
-2	3536	3512*/71-72-76	3583*/66-72-77	3619*/67-72-77	3654*/67-72-77
			3656**81-85-88	3697**85-90-92	3734**89-95-96
-4	3536	3517*/71-72-77	3587*/66-72-77	3623*/67-72-77	3657*/67-72-77
		3518**71-73-77	3662**82-86-88	3703**86-91-93	3739**89-95-97
-6	3536	3521*/72-72-77	3590*/66-72-77	3626*/67-72-77	3661*/67-72-77
		3524**72-73-78	3667**82-86-89	3708**86-91-93	3744**90-96-98
-8	3536	3524*/72-72-77	3594*/66-72-77	3629*/67-72-77	3664*/68-72-77
		3530**72-74-78	3672**83-87-90	3713**87-92-94	3749**91-97-98
-10	3536	3528*/72-72-77	3597*/66-72-77	3633*/67-72-77	3668*/68-72-77
		3536**73-74-79	3678**83-88-90	3718**87-93-94	3753**91-97-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3882 M LONG WITH 78 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27R	9	247	0	25	375	0	42	451	0
	44	485	0	50	503	0	53	518	0
	68	843	0	76	950	0	240	36342	0
	329	43268	0	332	43419	0	450	55542	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04L EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2595	2494*/46-46-51	2581*/49-49-53	2608*/50-50-54	2632*/50-50-54
		2501**50-52-56	2603**55-58-61	2637**58-61-64	2670**60-64-66
58A	2652	2543*/48-48-53	2633*/51-51-55	2661*/51-51-55	2686*/51-51-55
		2550**51-53-57	2653**57-60-63	2687**58-61-64	2720**60-63-66
56A	2719	2600*/49-49-54	2694*/52-52-57	2723*/53-53-57	2749*/53-53-57
		2606**52-54-58	2711**58-61-64	2746**60-63-65	2779**61-64-67
54	2788	2659*/51-51-56	2756*/54-54-59	2787*/55-55-59	2814*/55-55-59
		2664**53-55-59	2771**59-62-65	2806**61-64-67	2841**63-66-68
52	2864	2725*/53-53-58	2825*/56-56-61	2856*/57-57-61	2885*/57-57-62
		2727**56-56-60	2836**60-63-66	2872**63-66-69	2908**65-68-70
50	2939	2788*/54-54-60	2892*/58-58-62	2924*/59-59-63	2954*/59-59-64
		2790**57-57-61	2901**61-63-67	2937**64-66-70	2974**66-69-72
48	3017	2853*/56-56-62	2960*/60-60-64	2994*/61-61-65	3025*/61-61-66
		2854**57-57-62	2967**63-65-69	3004**65-67-70	3041**67-70-73
46	3090	2914*/58-58-63	3024*/61-61-66	3059*/62-62-67	3093*/63-63-68
			3030**64-66-70	3068**66-68-72	3106**68-71-74
44	3161	2963F/58-59-65	3086*/63-63-68	3123*/64-64-69	3158*/65-65-70
			3091**65-67-71	3130**68-70-74	3170**69-72-75
42	3231	3012F/59-60-66	3148*/64-64-69	3185*/66-66-70	3221*/67-67-71
			3152**66-68-72	3192**69-71-75	3232**71-73-76
40	3301	3058F/60-61-67	3208*/66-66-71	3246*/67-67-72	3283*/68-68-73
			3211**69-69-73	3251**70-72-76	3293**72-75-78
38	3366	3101F/61-62-69	3262*/67-67-72	3303*/68-68-73	3342*/70-70-74
			3265**70-70-74	3308**71-73-77	3351**73-76-79
36	3440	3145F/62-63-70	3322*/69-69-74	3364*/70-70-75	3404*/71-71-76
			3324**70-70-75	3368**71-73-78	3412**74-76-80
34	3507	3178F/62-64-71	3376*/70-70-75	3422*/71-71-76	3478*/71-71-76
			3377**70-71-76	3429**74-74-78	3491**76-77-80
32	3529	3196F/63-65-71	3398*/70-70-76	3453*/71-71-76	3502*/71-71-76
			3399**71-71-77	3461**74-74-79	3513**77-77-81
30	3530	3205F/63-65-71	3402*/70-70-76	3459*/71-71-76	3506*/72-72-76
			3404**71-72-77	3468**74-75-79	3518**77-78-81
28	3530	3214F/63-65-72	3407*/71-71-76	3465*/71-71-76	3510*/72-72-76
			3409**72-72-77	3475**74-75-79	3523**78-78-82
26	3531	3223F/63-65-72	3411*/71-71-76	3471*/71-71-76	3514*/72-72-76
			3416**71-73-78	3482**73-76-80	3528**78-79-82
24	3532	3233F/64-66-72	3418*/71-71-76	3476*/71-71-76	3518*/72-72-77
			3424**72-73-78	3489**74-76-80	3533**79-79-83
22	3533	3242F/64-66-72	3425*/71-71-76	3482*/71-71-76	3522*/72-72-77
			3431**72-74-78	3494**74-77-81	3538**79-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3000 M LONG WITH 0 M OF CLEARWAY AND 570 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	79	1577	0	99	1608	0	105	1644	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04L EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3533	3252F/64-66-73	3432*/71-71-76	3487*/71-71-76	3526*/72-72-77
			3439**72-74-79	3498**75-77-81	3543**80-80-84
18	3534	3261F/65-67-73	3438*/71-71-76	3491*/71-71-76	3530*/72-72-77
			3446**73-75-79	3503**75-78-81	3548**80-81-84
16	3535	3271F/65-67-73	3444*/71-71-76	3495*/71-71-76	3534*/72-72-77
			3454**73-75-79	3508**75-78-82	3554**78-81-85
14	3536	3281F/65-67-73	3450*/71-71-76	3499*/71-71-76	3538*/72-72-77
			3461**73-76-80	3513**76-79-82	3559**79-82-85
12	3537	3292F/66-67-73	3456*/71-71-76	3503*/71-71-76	3542*/72-72-77
			3469**74-76-80	3519**76-79-83	3564**79-82-85
10	3538	3302F/66-68-74	3462*/71-71-76	3507*/72-72-76	3545*/72-72-77
			3476**74-77-81	3524**77-80-83	3570**82-82-86
8	3538	3312F/66-68-74	3467*/71-71-76	3512*/72-72-76	3549*/72-72-77
			3483**74-77-81	3529**77-80-84	3575**79-83-86
6	3539	3323F/67-68-74	3473*/71-71-76	3515*/72-72-77	3552*/72-72-77
			3489**75-78-81	3535**78-81-84	3580**80-83-86
4	3539	3329*/67-68-74	3478*/71-71-76	3519*/72-72-77	3555*/72-72-77
			3494**75-78-82	3540**78-81-85	3585**80-83-86
2	3540	3334*/68-69-74	3483*/71-71-76	3523*/72-72-77	3559*/72-72-77
			3499**76-79-82	3545**78-82-85	3590**80-83-86
0	3540	3339*/68-69-74	3487*/71-71-76	3526*/72-72-77	3562*/72-72-77
			3504**76-79-83	3550**81-82-85	3595**81-84-87
-2	3540	3343*/68-69-75	3491*/71-71-76	3529*/72-72-77	3565*/73-73-77
		3344**69-70-75	3509**77-80-83	3554**79-82-85	3600**81-85-88
-4	3540	3347*/69-69-75	3494*/71-71-76	3533*/72-72-77	3568*/73-73-77
		3349**69-71-76	3513**77-80-84	3559**79-82-85	3605**82-86-88
-6	3541	3351*/69-69-75	3498*/71-71-76	3536*/72-72-77	3571*/73-73-77
		3354**70-71-77	3518**78-81-84	3564**79-82-86	3610**82-86-89
-8	3541	3355*/69-69-75	3501*/71-71-76	3539*/72-72-77	3573*/73-73-77
		3359**70-72-77	3523**78-81-84	3569**79-83-86	3615**83-87-89
-10	3541	3359*/69-69-75	3504*/71-71-76	3542*/73-73-77	3576*/73-73-77
		3363**70-72-77	3528**78-81-85	3574**80-83-86	3620**84-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3000 M LONG WITH 0 M OF CLEARWAY AND 570 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	79	1577	0	99	1608	0	105	1644	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04LS EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2595	2447*/45-45-50	2551*/48-48-53	2585*/49-49-54	2615*/50-50-54
			2555**50-50-54	2591**53-53-57	2627**54-56-59
58A	2652	2493*/46-46-51	2600*/50-50-54	2635*/51-51-55	2667*/51-51-55
			2603**51-51-56	2640**53-53-57	2677**56-56-60
56A	2719	2547*/48-48-53	2657*/51-51-56	2693*/52-52-57	2727*/53-53-57
			2659**53-53-57	2697**55-55-58	2734**57-57-60
54	2788	2602*/49-49-54	2716*/53-53-57	2753*/54-54-58	2789*/55-55-59
				2756**56-56-60	2794**58-58-62
52	2864	2664*/51-51-56	2780*/55-55-59	2819*/56-56-60	2856*/57-57-61
				2820**58-58-62	2860**59-59-63
50	2939	2724*/52-52-58	2843*/56-56-61	2883*/58-58-62	2921*/59-59-63
					2924**61-61-65
48	3017	2784*/54-54-60	2908*/58-58-63	2948*/59-59-64	2988*/60-60-65
					2989**61-61-66
46	3090	2841*/55-55-61	2968*/60-60-65	3009*/61-61-66	3050*/62-62-67
44	3161	2896*/57-57-63	3027*/61-61-66	3069*/62-62-67	3111*/64-64-68
42	3231	2952*/58-58-65	3085*/62-62-68	3128*/64-64-69	3171*/65-65-70
40	3301	3005*/60-60-66	3141*/64-64-69	3186*/65-65-70	3230*/67-67-72
38	3366	3053*/61-61-67	3192*/65-65-71	3238*/67-67-72	3283*/68-68-73
36	3440	3105*/62-62-69	3247*/67-67-72	3294*/68-68-73	3342*/69-69-74
34	3507	3150*/63-63-70	3296*/68-68-73	3346*/69-69-75	3395*/70-70-76
32	3529	3169*/63-64-71	3317*/68-68-74	3367*/70-70-75	3420*/71-71-76
30	3530	3175*/64-64-71	3323*/68-68-74	3373*/70-70-75	3429*/71-71-76
28	3530	3180*/64-64-71	3329*/68-68-74	3379*/70-70-75	3437*/71-71-76
26	3531	3186*/64-64-71	3334*/69-69-74	3384*/70-70-75	3445*/71-71-76
24	3532	3191*/64-64-71	3340*/69-69-74	3390*/70-70-76	3453*/71-71-76
22	3533	3197*/65-65-71	3346*/69-69-75	3395*/70-70-76	3461*/71-71-76
20	3533	3202*/65-65-71	3351*/69-69-75	3401*/70-70-76	3469*/71-71-76
18	3534	3208*/65-65-71	3357*/69-69-75	3406*/71-71-76	3476*/71-71-76
16	3535	3213*/65-65-72	3362*/69-69-75	3413*/71-71-76	3483*/71-71-76
					3484**73-73-77
14	3536	3219*/65-65-72	3368*/70-70-75	3422*/71-71-76	3489*/71-71-76
12	3537	3224*/65-65-72	3374*/70-70-75	3431*/71-71-76	3495*/71-71-76
					3496**73-73-77
10	3538	3230*/66-66-72	3380*/70-70-75	3439*/71-71-76	3500*/71-71-76
					3502**73-73-78
8	3538	3236*/66-66-72	3385*/70-70-75	3447*/71-71-76	3505*/71-71-76
					3508**73-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3000 M LONG WITH 0 M OF CLEARWAY AND 570 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04LS	68	810	0	79	1577	0	99	1608	0
	105	1644	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04LS EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
6	3539	3241*/66-66-72	3391*/70-70-76	3454*/71-71-76	3510*/72-72-76 3513**74-74-78
4	3539	3246*/66-66-72	3396*/70-70-76	3462*/71-71-76	3515*/72-72-77 3463**72-72-77 3519**74-74-78
2	3540	3252*/66-66-73	3402*/70-70-76	3469*/71-71-76	3520*/72-72-77 3470**72-72-77 3524**74-74-78
0	3540	3257*/66-66-73	3407*/70-71-76	3476*/71-71-76	3525*/72-72-77 3478**72-72-77 3529**75-75-79
-2	3540	3262*/67-67-73	3413*/71-71-76	3482*/71-71-76	3529*/72-72-77 3485**73-73-77 3535**75-75-79
-4	3540	3267*/67-67-73	3421*/71-71-76	3488*/71-71-76	3534*/72-72-77 3491**73-73-77 3540**76-76-80
-6	3541	3272*/67-67-73	3429*/71-71-76	3493*/71-71-76	3539*/72-72-77 3496**73-73-78 3545**77-77-81
-8	3541	3277*/67-67-73	3436*/71-71-76	3497*/71-71-76	3543*/73-73-77 3501**73-73-78 3550**76-76-80
-10	3541	3283*/67-67-73	3443*/71-71-76	3502*/71-71-76	3547*/73-73-77 3506**75-75-79 3556**77-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3000 M LONG WITH 0 M OF CLEARWAY AND 570 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04LS	68	810	0	79	1577	0	99	1608	0
	105	1644	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04R EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2595	2637*/47-50-54	2730*/48-50-54	2760*/49-50-54	2790*/49-50-54
		2635**51-55-58	2713**61-66-67	2734**64-69-71	2753**68-73-74
58A	2652	2686*/49-51-55	2781*/50-51-55	2812*/50-51-55	2843*/51-51-55
		2683**52-55-59	2761**61-66-68	2783**65-70-71	2803**68-73-75
56A	2719	2742*/50-53-57	2842*/52-53-57	2874*/52-53-57	2905*/52-53-57
		2738**52-56-59	2818**62-66-69	2841**65-70-72	2862**68-74-75
54	2788	2797*/52-55-59	2904*/53-55-59	2937*/54-55-59	2970*/54-55-59
		2794**52-56-60	2877**62-67-69	2901**65-70-72	2923**69-74-76
52	2864	2846F/52-57-61	2968*/55-57-62	3003*/55-57-62	3037*/56-57-62
			2941**62-67-70	2967**65-71-73	2992**69-74-76
50	2939	2891F/53-58-62	3030*/56-59-64	3066*/57-59-64	3102*/57-59-64
			3004**62-67-70	3032**65-71-74	3057**69-75-77
48	3017	2936F/53-59-64	3092*/58-61-66	3130*/58-61-66	3168*/59-61-66
			3068**62-68-71	3096**66-71-74	3123**69-75-77
46	3090	2978F/54-60-65	3151*/59-63-68	3191*/60-63-68	3229*/60-63-68
			3129**62-68-72	3159**66-72-75	3187**69-75-78
44	3161	3019F/54-61-66	3209*/60-65-70	3249*/61-65-70	3290*/62-65-70
			3189**62-68-72	3219**66-72-75	3249**69-76-79
42	3231	3061F/54-62-67	3265F/61-67-71	3309*/62-67-71	3352*/63-67-71
			3247**62-69-73	3278**66-72-76	3310**69-76-79
40	3301	3101F/55-63-68	3309F/62-69-73	3367*/63-69-73	3413*/64-69-73
			3305**62-69-74	3339**66-73-77	3371**69-76-80
38	3366	3138F/55-64-69	3349F/63-70-74	3431*/64-70-75	3502*/65-70-75
				3393**66-73-77	3436**69-77-80
36	3440	3177F/55-64-71	3393F/63-71-75	3504F/65-71-76	3552*/65-71-76
				3468**66-73-77	3508**69-77-80
34	3507	3210F/55-65-71	3446F/63-71-76	3541F/65-72-76	3593*/65-72-76
				3523**66-73-78	3559**69-77-81
32	3529	3227F/56-66-72	3483F/63-71-76	3561F/65-72-77	3614*/66-72-77
				3544**66-74-78	3580**69-77-81
30	3530	3236F/56-66-72	3495F/63-71-76	3571F/65-72-77	3620*/66-72-77
				3550**66-74-79	3585**70-78-82
28	3530	3246F/56-66-72	3505F/63-72-76	3580*/65-72-77	3627*/66-72-77
				3555**67-75-79	3591**70-78-82
26	3531	3255F/57-66-73	3515F/64-72-76	3587*/65-72-77	3633*/66-72-77
				3561**67-75-79	3596**71-79-83
24	3532	3264F/57-67-73	3525F/64-72-77	3593*/65-72-77	3639*/66-72-77
				3566**68-76-80	3602**71-80-83
22	3533	3274F/57-67-73	3536F/64-72-77	3599*/65-72-77	3645*/66-72-77
			3534**64-72-77	3571**68-76-80	3607**72-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04R	18	415	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04R EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3533	3284F/57-67-73	3547F/65-72-77	3605*/66-72-77	3651*/66-72-77
			3540**65-73-77	3577**69-77-81	3613**72-81-84
18	3534	3294F/58-67-73	3557F/65-72-77	3611*/66-72-77	3658*/66-72-77
			3545**65-73-78	3582**69-77-81	3618**73-81-84
16	3535	3304F/58-68-74	3568F/65-72-77	3618*/66-72-77	3664*/67-72-77
			3551**66-74-78	3588**69-78-82	3623**73-82-85
14	3536	3314F/58-68-74	3577*/65-72-77	3624*/66-72-77	3670*/67-72-77
			3557**66-74-79	3593**70-78-82	3629**74-82-85
12	3537	3324F/59-68-74	3584*/65-72-77	3631*/66-72-77	3677*/67-72-77
			3563**67-75-79	3599**70-79-82	3635**74-83-86
10	3538	3334F/59-69-74	3590*/65-72-77	3637*/66-72-77	3683*/67-72-77
			3569**67-76-80	3605**71-79-83	3641**75-83-86
8	3538	3345F/59-69-75	3597*/65-72-77	3643*/66-72-77	3690*/67-72-77
			3574**68-76-80	3611**71-80-83	3646**75-84-87
6	3539	3355F/60-69-75	3603*/65-72-77	3650*/66-72-77	3696*/67-72-77
			3580**68-77-81	3616**72-80-84	3652**76-84-87
4	3539	3366F/60-69-75	3609*/65-72-77	3656*/66-72-77	3702*/67-72-77
			3585**69-77-81	3622**72-81-84	3658**76-85-88
2	3540	3376F/60-70-75	3616*/66-72-77	3662*/66-72-77	3708*/67-72-77
			3591**69-78-81	3627**73-82-85	3663**77-86-88
0	3540	3387F/61-70-75	3622*/66-72-77	3668*/66-72-77	3714*/67-72-77
			3596**70-78-82	3633**73-82-85	3668**77-86-89
-2	3540	3398F/61-70-76	3628*/66-73-77	3674*/67-73-77	3720*/67-73-77
			3602**70-79-82	3638**74-83-86	3673**78-87-89
-4	3540	3408F/61-71-76	3634*/66-73-77	3680*/67-73-77	3726*/67-73-77
			3607**71-79-83	3643**74-83-86	3679**78-87-90
-6	3541	3426F/61-71-76	3640*/66-73-77	3686*/67-73-77	3732*/67-73-77
			3613**71-80-83	3649**75-84-87	3684**79-88-90
-8	3541	3446F/62-71-76	3646*/66-73-77	3692*/67-73-77	3738*/68-73-77
			3618**72-81-84	3654**76-85-87	3689**79-89-91
-10	3541	3466F/62-71-76	3652*/66-73-77	3698*/67-73-77	3744*/68-73-77
			3623**72-81-84	3660**76-85-88	3695**80-89-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04R	18	415	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04RS EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2566*/49-49-53	2635*/48-50-54	2659*/49-50-54	2682*/49-50-54
		2583**52-55-58	2684**61-65-67	2715**62-66-68	2745**67-71-73
58A	2652	2617*/50-50-55	2689*/50-51-55	2713*/50-51-55	2737*/51-51-55
		2632**53-55-59	2735**62-66-68	2767**64-68-69	2797**67-72-73
56A	2719	2678*/52-52-56	2752*/52-53-57	2777*/52-53-57	2801*/52-53-57
		2687**53-55-59	2794**62-66-68	2826**64-68-70	2857**68-73-74
54	2788	2740*/53-54-58	2817*/53-55-59	2843*/54-55-59	2867*/54-55-59
		2743**53-56-60	2854**62-65-68	2888**65-69-71	2919**69-73-75
52	2864	2803*/53-55-60	2886*/55-57-62	2913*/55-57-62	2939*/56-57-62
			2920**62-65-68	2956**66-69-71	2987**69-74-76
50	2939	2863*/53-57-62	2954*/56-59-64	2982*/57-59-64	3009*/57-59-64
			2983**63-65-68	3019**66-69-72	3052**69-74-76
48	3017	2922*/53-58-63	3023*/58-61-66	3052*/58-61-66	3080*/59-61-66
			3046**63-65-69	3083**66-70-73	3118**69-74-77
46	3090	2978F/54-60-65	3090*/59-63-68	3118*/60-63-68	3147*/60-63-68
			3106**63-65-69	3145**66-70-73	3181**69-75-77
44	3161	3019F/54-61-66	3161*/62-65-70	3182*/61-65-70	3212*/62-65-70
			3164**63-66-70	3205**66-70-74	3243**69-75-78
42	3231	3061F/54-62-67	3221*/63-67-71	3245*/62-67-71	3276*/63-67-71
				3264**66-71-75	3303**70-75-78
40	3301	3101F/55-63-68	3276*/63-68-73	3307*/63-69-73	3341*/64-69-73
				3322**66-71-75	3364**70-76-79
38	3366	3138F/55-64-69	3329*/63-69-74	3366*/64-70-75	3399*/65-70-75
				3376**66-71-76	3425**70-76-79
36	3440	3177F/55-64-71	3383*/63-70-75	3440*/66-71-76	3483*/65-71-76
				3444**66-71-76	3501**69-76-80
34	3507	3210F/55-65-71	3443*/63-71-76	3506*/66-72-76	3533*/65-72-76
					3552**69-76-80
32	3529	3227F/56-66-72	3473*/63-71-76	3527*/66-72-77	3555*/66-72-77
					3573**70-77-81
30	3530	3236F/56-66-72	3481*/63-71-76	3530*/66-72-77	3559*/66-72-77
				3532**67-72-77	3578**70-77-81
28	3530	3246F/56-66-72	3489*/64-71-76	3530*/66-72-77	3563*/66-72-77
				3538**67-73-77	3584**71-78-81
26	3531	3255F/57-66-73	3494*/64-71-76	3531*/65-72-77	3566*/66-72-77
				3543**68-73-78	3589**71-78-82
24	3532	3264F/57-67-73	3500*/65-71-76	3535*/65-72-77	3570*/66-72-77
				3549**68-74-78	3595**71-79-82
22	3533	3274F/57-67-73	3506*/65-72-76	3539*/65-72-77	3574*/66-72-77
				3555**68-74-79	3600**72-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04RS	18	415	0	107	1878	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 04RS EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3533	3284F/57-67-73	3511*/66-72-76	3543*/66-72-77	3577*/66-72-77
				3560**69-75-79	3606**72-80-83
18	3534	3294F/58-67-73	3517*/66-72-77	3546*/66-72-77	3581*/66-72-77
				3566**69-76-80	3611**73-80-84
16	3535	3304F/58-68-74	3522*/66-72-77	3550*/66-72-77	3585*/67-72-77
				3571**70-76-80	3617**73-81-84
14	3536	3314F/58-68-74	3528*/67-72-77	3554*/66-72-77	3588*/67-72-77
				3577**70-77-81	3622**74-81-85
12	3537	3324F/59-68-74	3534*/67-72-77	3558*/66-72-77	3592*/67-72-77
				3583**71-77-81	3628**74-82-85
10	3538	3334F/59-69-74	3538*/67-72-77	3561*/66-72-77	3596*/67-72-77
			3540**68-74-78	3589**71-78-81	3634**75-83-86
8	3538	3345F/59-69-75	3538*/67-72-77	3565*/66-72-77	3599*/67-72-77
			3546**68-74-79	3594**72-78-82	3640**75-83-86
6	3539	3355F/60-69-75	3539*/66-72-77	3569*/66-72-77	3603*/67-72-77
			3552**69-75-79	3600**72-79-82	3645**76-84-87
4	3539	3366F/60-69-75	3539*/66-72-77	3572*/66-72-77	3606*/67-72-77
			3558**69-75-79	3606**73-79-83	3651**76-84-87
2	3540	3376F/60-70-75	3541*/66-72-77	3576*/66-72-77	3610*/67-72-77
			3563**70-75-79	3612**73-80-83	3657**77-85-88
0	3540	3387F/61-70-75	3544*/66-72-77	3579*/66-72-77	3613*/67-72-77
			3569**70-75-79	3617**74-80-84	3662**77-85-88
-2	3540	3398F/61-70-76	3547*/66-73-77	3582*/67-73-77	3616*/67-73-77
			3574**71-76-80	3622**74-81-84	3667**78-86-89
-4	3540	3404*/61-70-76	3550*/66-73-77	3585*/67-73-77	3619*/67-73-77
			3580**71-77-80	3628**75-82-85	3673**78-87-89
-6	3541	3410*/62-71-76	3554*/66-73-77	3588*/67-73-77	3622*/67-73-77
			3585**72-77-81	3633**75-82-85	3678**79-87-90
-8	3541	3418*/62-71-76	3557*/66-73-77	3591*/67-73-77	3625*/68-73-77
			3591**72-78-81	3639**76-83-86	3683**80-88-90
-10	3541	3427*/63-71-76	3560*/66-73-77	3594*/67-73-77	3628*/68-73-77
			3597**73-78-82	3644**76-83-86	3689**80-88-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.04 PERCENT FOR TODA AND -0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04RS	18	415	0	107	1878	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 12

EKCH

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2453F/41-45-50	2641F/48-50-54	2706F/49-50-54	2771F/49-50-54
			2617**50-52-56	2646**54-56-59	2674**57-60-62
58A	2652	2490F/42-46-51	2680F/50-51-55	2746F/50-51-55	2811F/51-51-55
			2665**51-53-57	2695**54-57-60	2724**58-60-63
56A	2719	2532F/43-47-52	2725F/52-53-57	2792F/52-53-57	2855F/52-53-57
			2722**52-54-58	2753**55-57-61	2782**58-61-64
54	2788	2575F/44-48-54	2771F/52-55-59	2836F/54-55-59	2901F/54-55-59
				2812**56-58-62	2841**59-62-65
52	2864	2623F/45-49-55	2818F/53-56-60	2883F/55-57-62	2949F/56-57-62
				2874**56-58-62	2904**59-62-66
50	2939	2670F/46-51-57	2863F/54-57-62	2929F/56-59-63	2996F/57-59-64
					2966**59-62-66
48	3017	2717F/47-52-58	2908F/54-58-63	2974F/57-60-65	3042F/59-61-66
					3028**60-63-67
46	3090	2756F/47-53-59	2949F/55-59-64	3017F/57-61-66	3086F/60-63-68
44	3161	2795F/48-54-60	2991F/55-60-65	3059F/58-62-67	3129F/60-64-69
42	3231	2834F/48-55-62	3032F/56-61-67	3101F/58-63-68	3171F/61-65-70
40	3301	2871F/48-55-63	3072F/56-62-68	3142F/59-64-69	3213F/61-66-71
38	3366	2905F/49-56-64	3108F/56-63-69	3179F/59-65-70	3251F/62-67-72
36	3440	2942F/49-57-65	3147F/57-63-70	3218F/59-66-72	3292F/62-68-73
34	3507	2972F/49-58-66	3180F/57-64-71	3252F/60-66-72	3329F/62-69-74
32	3529	2989F/49-58-66	3197F/57-65-71	3270F/60-67-73	3348F/63-69-75
30	3530	2997F/50-58-66	3207F/58-65-71	3280F/60-67-73	3359F/63-69-75
28	3530	3006F/50-59-66	3216F/58-65-72	3291F/61-67-73	3369F/63-70-75
26	3531	3014F/50-59-67	3226F/58-66-72	3301F/61-68-74	3380F/64-70-75
24	3532	3023F/50-59-67	3235F/59-66-72	3311F/61-68-74	3390F/64-70-76
22	3533	3032F/51-59-67	3245F/59-66-72	3322F/62-68-74	3401F/64-70-76
20	3533	3040F/51-60-67	3255F/59-66-73	3332F/62-69-74	3413F/65-71-76
18	3534	3049F/51-60-68	3265F/60-67-73	3343F/62-69-75	3434F/65-71-76
16	3535	3058F/52-60-68	3275F/60-67-73	3354F/63-69-75	3455F/65-71-76
14	3536	3068F/52-61-68	3285F/60-67-73	3365F/63-69-75	3476F/65-71-76
12	3537	3077F/52-61-68	3296F/60-68-74	3376F/63-70-75	3492F/65-71-76
10	3538	3086F/53-61-68	3307F/61-68-74	3387F/64-70-75	3504F/65-71-76
8	3538	3095F/53-61-69	3318F/61-68-74	3398F/64-70-76	3515F/66-72-76
6	3539	3105F/53-62-69	3329F/61-68-74	3409F/64-71-76	3526F/66-72-77
4	3539	3114F/53-62-69	3339F/62-69-74	3429F/64-71-76	3537F/67-72-77
2	3540	3123F/54-62-69	3350F/62-69-75	3450F/64-71-76	3549F/67-72-77
					3544**67-73-77
0	3540	3133F/54-63-70	3361F/62-69-75	3471F/65-71-76	3560F/67-72-77
					3550**67-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

12 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 12

EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-2	3540	3142F/54-63-70	3372F/63-70-75	3490F/65-71-76	3572F/67-73-77
					3556**68-74-78
-4	3540	3152F/55-63-70	3383F/63-70-75	3501F/65-71-76	3583F/67-73-77
					3561**68-75-79
-6	3541	3162F/55-64-70	3395F/63-70-76	3512F/66-72-76	3595F/67-73-77
					3567**69-75-79
-8	3541	3171F/55-64-71	3406F/64-71-76	3524F/66-72-77	3607F/67-73-77
					3573**69-76-80
-10	3541	3181F/56-64-71	3423F/64-71-76	3535F/66-72-77	3619F/68-73-77
					3578**70-76-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

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RUNWAY IS 2800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

12 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT RUNWAY 12S EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KASTRUP
COPENHAGEN
777-200LR GE90-110B1L
DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2595	2453F/41-45-50	2560*/49-49-53	2589*/50-50-54	2614*/49-50-54
			2571**51-52-56	2608**54-56-60	2644**57-60-63
58A	2652	2490F/42-46-51	2611*/50-50-54	2641*/51-51-55	2666*/51-51-55
			2619**52-53-57	2657**55-57-60	2694**58-61-64
56A	2719	2532F/43-47-52	2671*/52-52-56	2701*/53-53-57	2728*/52-53-57
			2675**52-54-58	2714**56-57-61	2752**59-61-64
54	2788	2575F/44-48-54	2731*/53-53-58	2764*/54-54-59	2791*/54-55-59
				2773**56-58-61	2812**60-62-65
52	2864	2623F/45-49-55	2795*/54-55-60	2832*/56-56-61	2864*/57-57-62
				2836**57-58-62	2876**60-61-65
50	2939	2670F/46-51-57	2853*/54-57-61	2896*/57-58-63	2932*/59-59-63
					2938**60-61-65
48	3017	2717F/47-52-58	2908F/54-58-63	2957*/57-60-64	3000*/60-61-65
46	3090	2756F/47-53-59	2949F/55-59-64	3013*/57-61-66	3058*/60-62-67
44	3161	2795F/48-54-60	2991F/55-60-65	3059F/58-62-67	3115*/61-64-68
42	3231	2834F/48-55-62	3032F/56-61-67	3101F/58-63-68	3170*/61-65-70
40	3301	2871F/48-55-63	3072F/56-62-68	3142F/59-64-69	3213F/61-66-71
38	3366	2905F/49-56-64	3108F/56-63-69	3179F/59-65-70	3251F/62-67-72
36	3440	2942F/49-57-65	3147F/57-63-70	3218F/59-66-72	3292F/62-68-73
34	3507	2972F/49-58-66	3180F/57-64-71	3252F/60-66-72	3329F/62-69-74
32	3529	2989F/49-58-66	3197F/57-65-71	3270F/60-67-73	3348F/63-69-75
30	3530	2997F/50-58-66	3207F/58-65-71	3280F/60-67-73	3359F/63-69-75
28	3530	3006F/50-59-66	3216F/58-65-72	3291F/61-67-73	3369F/63-70-75
26	3531	3014F/50-59-67	3226F/58-66-72	3301F/61-68-74	3380F/64-70-75
24	3532	3023F/50-59-67	3235F/59-66-72	3311F/61-68-74	3390F/64-70-76
22	3533	3032F/51-59-67	3245F/59-66-72	3322F/62-68-74	3401F/64-70-76
20	3533	3040F/51-60-67	3255F/59-66-73	3332F/62-69-74	3413F/65-71-76
18	3534	3049F/51-60-68	3265F/60-67-73	3343F/62-69-75	3434F/65-71-76
16	3535	3058F/52-60-68	3275F/60-67-73	3354F/63-69-75	3455F/65-71-76
14	3536	3068F/52-61-68	3285F/60-67-73	3365F/63-69-75	3471*/65-71-76
12	3537	3077F/52-61-68	3296F/60-68-74	3376F/63-70-75	3480*/65-71-76
10	3538	3086F/53-61-68	3307F/61-68-74	3387F/64-70-75	3488*/66-71-76
8	3538	3095F/53-61-69	3318F/61-68-74	3398F/64-70-76	3494*/66-71-76
6	3539	3105F/53-62-69	3329F/61-68-74	3409F/64-71-76	3500*/67-71-76
4	3539	3114F/53-62-69	3339F/62-69-74	3429F/64-71-76	3506*/67-72-76
2	3540	3123F/54-62-69	3350F/62-69-75	3447*/65-71-76	3512*/68-72-76
0	3540	3133F/54-63-70	3361F/62-69-75	3456*/65-71-76	3518*/68-72-77
-2	3540	3142F/54-63-70	3372F/63-70-75	3465*/65-71-76	3524*/69-72-77
-4	3540	3152F/55-63-70	3383F/63-70-75	3473*/66-71-76	3529*/69-72-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12S	107	1707	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 12S EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3541	3162F/55-64-70	3395F/63-70-76	3481*/66-71-76	3535*/70-72-77

-8	3541	3171F/55-64-71	3406F/64-71-76	3489*/67-71-76	3540*/70-72-77
					3541**70-74-79

-10	3541	3181F/56-64-71	3419*/64-71-76	3494*/67-71-76	3541*/70-73-77
					3547**71-75-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

12S	107	1707	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 22L EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2595*/48-50-54	2681*/50-50-54	2707*/50-50-54	2732*/50-50-54
		2602**52-52-55	2699**60-63-66	2725**64-68-69	2748**67-72-73
58A	2652	2650*/51-51-55	2735*/51-51-55	2761*/51-51-55	2786*/51-51-55
			2750**61-64-66	2776**64-68-70	2800**68-73-74
56A	2719	2707*/53-53-57	2797*/53-53-57	2823*/53-53-57	2850*/53-53-57
			2808**62-65-67	2835**65-69-71	2858**68-73-75
54	2788	2760*/53-54-59	2861*/55-55-59	2889*/55-55-59	2916*/55-55-59
			2866**62-65-68	2894**65-69-71	2919**68-73-75
52	2864	2816*/53-56-60	2932*/57-57-62	2960*/57-57-62	2988*/57-57-62
			2930**62-66-69	2960**65-70-72	2988**69-74-76
50	2939	2869*/53-57-62	2990*/58-59-64	3029*/59-59-64	3058*/59-59-64
			2993**62-66-69	3024**66-70-73	3052**69-74-76
48	3017	2923*/53-58-63	3059*/60-61-66	3100*/61-61-66	3129*/61-61-66
			3056**62-66-70	3088**66-70-73	3118**69-74-77
46	3090	2972*/54-60-65	3125*/62-63-68	3157*/62-63-68	3198*/63-63-68
			3117**62-66-70	3150**66-71-74	3182**69-75-77
44	3161	3015F/54-61-66	3186*/63-65-70	3222*/63-65-70	3264*/65-65-70
			3176**63-67-71	3211**66-71-74	3243**69-75-78
42	3231	3057F/54-62-67	3235*/63-67-71	3286*/65-67-71	3321*/65-67-71
			3233**63-67-72	3269**66-71-75	3304**69-75-79
40	3301	3097F/55-63-68	3285*/63-68-73	3351*/67-69-73	3387*/67-69-73
				3329**66-72-76	3365**70-76-79
38	3366	3133F/55-63-69	3332*/63-69-74	3397*/67-70-75	3473*/68-70-75
				3383**66-72-76	3427**69-76-80
36	3440	3172F/55-64-70	3381*/63-70-75	3470*/66-71-76	3543*/71-71-76
				3454**66-72-76	3502**69-76-80
34	3507	3206F/55-65-71	3435*/63-71-76	3517*/66-72-76	3586*/70-72-76
				3513**66-72-77	3553**69-76-80
32	3529	3223F/56-65-72	3467*/63-71-76	3537*/66-72-77	3607*/71-72-77
				3534**66-73-77	3574**70-77-81
30	3530	3232F/56-66-72	3480*/63-71-76	3546*/67-72-77	3615*/71-72-77
				3539**66-73-78	3579**70-77-81
28	3530	3241F/56-66-72	3490*/64-71-76	3555*/67-72-77	3624*/72-72-77
				3545**67-74-78	3585**70-78-82
26	3531	3251F/57-66-72	3498*/64-71-76	3564*/68-72-77	3620*/71-72-77
				3550**67-74-78	3590**71-78-82
24	3532	3260F/57-67-73	3505*/64-72-76	3572*/68-72-77	3624*/71-72-77
				3556**68-75-79	3596**71-79-82
22	3533	3269F/57-67-73	3513*/65-72-76	3581*/69-72-77	3629*/71-72-77
				3562**68-75-79	3601**72-79-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22L	22	423	0	25	466	0	40	707	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT RUNWAY 22L EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KASTRUP
COPENHAGEN
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3533	3279F/58-67-73	3521*/65-72-77	3590*/69-72-77	3633*/71-72-77
				3567**69-76-80	3607**72-80-83
18	3534	3289F/58-67-73	3529*/66-72-77	3598*/70-72-77	3650*/72-72-77
				3572**69-76-80	3612**73-80-84
16	3535	3299F/58-68-74	3537*/66-72-77	3607*/71-72-77	3654*/72-72-77
				3578**70-77-81	3618**73-81-84
14	3536	3309F/58-68-74	3546*/67-72-77	3615*/71-72-77	3658*/72-72-77
			3542**67-73-77	3583**70-77-81	3623**74-82-85
12	3537	3319F/59-68-74	3555*/67-72-77	3624*/72-72-77	3663*/72-72-77
			3548**67-74-78	3589**71-78-82	3629**74-82-85
10	3538	3330F/59-68-74	3564*/68-72-77	3621*/71-72-77	3667*/72-72-77
			3554**67-74-78	3595**71-78-82	3635**75-83-86
8	3538	3340F/59-69-74	3573*/68-72-77	3625*/71-72-77	3672*/72-72-77
			3559**68-75-79	3601**72-79-83	3640**75-83-86
6	3539	3350F/60-69-75	3581*/69-72-77	3641*/72-72-77	3676*/72-72-77
			3565**68-75-79	3607**72-79-83	3646**76-84-87
4	3539	3361F/60-69-75	3590*/70-72-77	3645*/72-72-77	3680*/72-72-77
			3571**69-76-80	3612**73-80-83	3652**76-84-87
2	3540	3371F/60-70-75	3599*/70-72-77	3649*/72-72-77	3684*/72-72-77
			3576**69-76-80	3618**73-81-84	3657**77-85-88
0	3540	3382F/61-70-75	3607*/71-72-77	3653*/72-72-77	3688*/72-72-77
			3582**70-77-81	3623**74-81-84	3663**77-86-88
-2	3540	3391*/61-70-76	3615*/71-73-77	3657*/73-73-77	3692*/73-73-77
			3587**70-77-81	3628**74-82-85	3668**78-86-89
-4	3540	3400*/61-70-76	3623*/72-73-77	3661*/73-73-77	3696*/73-73-77
			3593**71-78-82	3634**75-82-85	3673**78-87-89
-6	3541	3408*/62-71-76	3630*/73-73-77	3665*/73-73-77	3699*/73-73-77
			3598**71-78-82	3639**75-83-86	3679**79-87-90
-8	3541	3419*/62-71-76	3634*/73-73-77	3669*/73-73-77	3703*/73-73-77
			3604**72-79-83	3645**76-83-86	3684**79-88-90
-10	3541	3432*/62-71-76	3638*/73-73-77	3672*/73-73-77	3707*/73-73-77
			3609**72-80-83	3651**76-84-87	3689**80-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.04 PERCENT FOR TODA AND 0.04 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22L	22	423	0	25	466	0	40	707	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 22R EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2595	2640*/47-50-54	2709*/48-50-54	2731*/49-50-54	2752*/49-50-54
		2678**57-60-63	2750**66-72-74	2761**69-75-76	2761**69-75-76
58A	2652	2693*/49-51-55	2764*/50-51-55	2787*/50-51-55	2809*/51-51-55
		2726**57-61-63	2800**67-73-74	2818**70-76-77	2818**71-76-77
56A	2719	2755*/50-53-57	2829*/52-53-57	2852*/52-53-57	2875*/53-53-57
		2781**57-61-64	2858**67-73-75	2877**70-77-78	2885**72-78-79
54	2788	2817*/52-55-59	2895*/54-55-59	2920*/54-55-59	2943*/54-55-59
		2839**57-61-65	2919**67-73-75	2940**70-77-78	2957**74-81-82
52	2864	2885*/53-57-62	2967*/55-57-62	2992*/56-57-62	3016*/56-57-62
		2901**57-62-65	2987**67-74-76	3009**71-77-79	3029**74-81-82
50	2939	2951*/54-59-64	3035*/56-59-64	3062*/57-59-64	3088*/58-59-64
		2963**57-62-66	3052**67-74-76	3076**71-78-79	3098**74-81-83
48	3017	3018*/56-61-66	3106*/58-61-66	3133*/58-61-66	3160*/59-61-66
		3025**57-62-67	3118**67-74-77	3143**71-78-80	3166**74-82-83
46	3090	3083*/57-63-68	3172*/59-63-68	3201*/60-63-68	3229*/60-63-68
			3181**67-75-77	3208**71-78-81	3233**74-82-84
44	3161	3138*/57-64-69	3237*/60-65-70	3267*/61-65-70	3297*/62-65-70
			3243**67-75-78	3271**71-79-81	3299**74-82-84
42	3231	3184F/58-66-70	3302*/61-67-71	3334*/62-67-71	3366*/63-67-71
			3304**67-75-78	3334**71-79-82	3362**75-83-85
40	3301	3225F/58-66-71	3366*/63-69-73	3399*/63-69-73	3444*/64-69-73
			3364**67-76-79	3395**71-79-82	3434**74-83-85
38	3366	3263F/58-67-72	3433*/63-70-75	3484*/64-70-75	3516*/65-70-75
			3424**67-76-79	3472**71-79-82	3508**74-83-85
36	3440	3305F/58-68-74	3508*/64-71-76	3542*/65-71-76	3575*/65-71-76
			3500**67-76-80	3533**71-80-83	3565**74-83-86
34	3507	3341F/59-69-74	3557*/64-72-76	3592*/65-72-76	3626*/66-72-76
			3550**67-76-80	3585**71-80-83	3618**74-84-86
32	3529	3360F/59-69-75	3578*/64-72-77	3614*/65-72-77	3648*/66-72-77
			3572**67-77-80	3606**71-80-84	3640**75-84-87
30	3530	3370F/59-70-75	3582*/64-72-77	3618*/65-72-77	3652*/66-72-77
			3577**68-77-81	3611**71-81-84	3645**75-85-87
28	3530	3380F/60-70-75	3587*/64-72-77	3622*/65-72-77	3656*/66-72-77
			3582**68-78-81	3617**72-81-85	3651**76-85-88
26	3531	3390F/60-70-76	3591*/65-72-77	3626*/65-72-77	3660*/66-72-77
			3587**69-78-82	3622**72-82-85	3656**76-86-88
24	3532	3400F/60-70-76	3595*/65-72-77	3630*/65-72-77	3664*/66-72-77
			3593**69-79-82	3627**73-82-85	3661**76-86-89
22	3533	3410F/60-71-76	3599*/65-72-77	3634*/66-72-77	3668*/66-72-77
			3598**69-79-83	3633**73-83-86	3666**77-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22R	18	380	0	67	1485	0	73	1551	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 22R EKCH

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KASTRUP
COPENHAGEN
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3533	3428F/61-71-76	3603*/65-72-77	3638*/66-72-77	3672*/66-72-77
			3604**70-80-83	3638**74-83-86	3671**77-87-90
18	3534	3447F/61-71-76	3607*/65-72-77	3642*/66-72-77	3675*/66-72-77
			3609**70-80-84	3644**74-84-87	3677**78-88-90
16	3535	3465F/61-71-76	3611*/65-72-77	3645*/66-72-77	3679*/67-72-77
			3615**71-81-84	3649**75-84-87	3682**78-88-91
14	3536	3485F/61-71-76	3615*/65-72-77	3649*/66-72-77	3683*/67-72-77
			3620**71-81-84	3655**75-85-88	3688**79-89-91
12	3537	3496F/61-71-76	3619*/65-72-77	3654*/66-72-77	3687*/67-72-77
			3626**72-82-85	3660**76-86-88	3693**79-89-92
10	3538	3505*/61-71-76	3623*/65-72-77	3658*/66-72-77	3691*/67-72-77
			3631**72-82-85	3666**76-86-89	3699**80-90-92
8	3538	3513*/62-72-76	3627*/65-72-77	3661*/66-72-77	3695*/67-72-77
			3637**73-83-86	3671**77-87-89	3704**81-91-93
6	3539	3519*/62-72-77	3631*/65-72-77	3665*/66-72-77	3698*/67-72-77
			3642**73-83-86	3677**77-87-90	3710**81-91-93
4	3539	3525*/63-72-77	3635*/66-72-77	3669*/66-72-77	3702*/67-72-77
			3648**74-84-87	3682**78-88-90	3715**82-92-94
2	3540	3532*/63-72-77	3638*/66-72-77	3672*/66-72-77	3705*/67-72-77
			3653**74-84-87	3687**78-88-91	3720**82-92-94
0	3540	3538*/64-72-77	3642*/66-72-77	3676*/66-72-77	3709*/67-72-77
			3659**75-85-88	3693**79-89-91	3725**83-93-95
-2	3540	3540*/64-73-77	3645*/66-73-77	3679*/67-73-77	3712*/67-73-77
		3543**64-73-77	3664**75-86-88	3698**79-90-92	3730**83-94-95
-4	3540	3541*/63-73-77	3649*/66-73-77	3682*/67-73-77	3715*/67-73-77
		3549**65-73-78	3669**76-86-89	3703**80-90-92	3735**84-94-96
-6	3541	3545*/63-73-77	3652*/66-73-77	3686*/67-73-77	3718*/68-73-77
		3554**65-74-78	3674**76-87-89	3708**80-91-93	3740**84-95-97
-8	3541	3549*/63-73-77	3655*/66-73-77	3689*/67-73-77	3721*/68-73-77
		3560**66-74-79	3680**77-87-90	3713**81-91-94	3745**85-96-97
-10	3541	3552*/63-73-77	3659*/66-73-77	3692*/67-73-77	3724*/68-73-77
		3566**66-75-79	3685**78-88-91	3718**82-92-94	3750**86-96-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22R	18	380	0	67	1485	0	73	1551	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 17 FT

RUNWAY 30

EKCH

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KASTRUP

COPENHAGEN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2276F/39-39-45	2436F/44-44-49	2491F/46-46-51	2546*/48-48-53
58A	2652	2312F/40-40-46	2474F/45-45-51	2530F/47-47-52	2587F/49-49-54
56A	2719	2353F/41-41-47	2518F/47-47-52	2574F/48-48-54	2632F/50-50-55
54	2788	2396F/42-42-49	2563F/48-48-53	2620F/50-50-55	2679F/52-52-57
52	2864	2443F/43-43-50	2612F/49-49-55	2671F/51-51-56	2731F/53-53-58
50	2939	2489F/44-44-52	2661F/50-50-56	2721F/52-52-58	2782F/54-54-60
48	3017	2535F/45-46-53	2710F/52-52-58	2771F/54-54-59	2832F/56-56-61
46	3090	2577F/46-47-54	2755F/53-53-59	2817F/55-55-61	2880F/57-57-62
44	3161	2619F/47-48-56	2801F/54-54-61	2863F/56-56-62	2927F/58-58-64
42	3231	2661F/48-49-57	2847F/55-55-62	2910F/57-57-63	2975F/59-59-65
40	3301	2701F/49-50-58	2891F/56-56-63	2955F/58-58-65	3020F/60-60-66
38	3366	2735F/49-51-59	2931F/57-57-64	2996F/59-59-66	3062F/61-61-68
36	3440	2770F/50-51-60	2970F/57-58-65	3039F/60-60-67	3107F/62-62-69
34	3507	2799F/50-52-61	3002F/58-59-66	3072F/60-61-68	3143F/63-63-70
32	3529	2814F/50-53-62	3018F/58-59-67	3089F/61-61-69	3161F/63-64-70
30	3530	2822F/50-53-62	3027F/58-59-67	3098F/61-62-69	3171F/64-64-71
28	3530	2830F/51-53-62	3036F/59-60-67	3107F/61-62-69	3180F/64-64-71
26	3531	2838F/51-53-62	3045F/59-60-67	3117F/62-62-69	3190F/64-64-71
24	3532	2847F/51-54-62	3054F/59-60-68	3126F/62-62-69	3200F/65-65-71
22	3533	2855F/52-54-63	3063F/60-60-68	3135F/62-63-70	3209F/65-65-71
20	3533	2863F/52-54-63	3073F/60-61-68	3145F/63-63-70	3219F/65-65-72
18	3534	2871F/52-54-63	3082F/60-61-68	3155F/63-63-70	3229F/66-66-72
16	3535	2880F/53-55-63	3091F/60-61-69	3164F/63-64-70	3239F/66-66-72
14	3536	2888F/53-55-64	3101F/61-62-69	3174F/64-64-71	3249F/66-66-72
12	3537	2897F/53-55-64	3110F/61-62-69	3184F/64-64-71	3259F/66-66-73
10	3538	2906F/53-55-64	3120F/61-62-69	3194F/64-65-71	3269F/67-67-73
8	3538	2915F/54-56-64	3130F/62-63-70	3204F/65-65-71	3280F/67-67-73
6	3539	2923F/54-56-64	3139F/62-63-70	3215F/65-65-72	3290F/67-67-73
4	3539	2932F/54-56-65	3149F/62-63-70	3225F/65-65-72	3300F/68-68-74
2	3540	2941F/55-57-65	3159F/63-63-70	3235F/66-66-72	3311F/68-68-74
0	3540	2950F/55-57-65	3169F/63-64-71	3245F/66-66-72	3321F/68-68-74
-2	3540	2959F/55-57-65	3179F/64-64-71	3256F/66-66-73	3332F/69-69-74
-4	3540	2968F/56-57-66	3189F/64-64-71	3266F/67-67-73	3342F/69-69-75
-6	3541	2978F/56-58-66	3199F/64-65-71	3277F/67-67-73	3353F/69-69-75
-8	3541	2987F/56-58-66	3210F/65-65-72	3287F/67-67-73	3364F/69-69-75
-10	3541	2996F/57-58-66	3220F/65-65-72	3298F/68-68-74	3375F/70-70-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 780 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2365 M LONG WITH 0 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30	41	668	0	43	705	0	374	6222	0
	517	16471	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 681 FT

RUNWAY 01L

ENGM

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2533	2533*/46-48-52	2604*/47-48-52	2627*/47-48-52	2649*/48-48-52
		2558**54-57-60	2653**61-64-66	2679**65-69-71	2694**68-72-73
58A	2590	2590*/49-50-54	2657*/49-50-54	2681*/49-50-54	2704*/49-50-54
		2607**55-58-61	2703**61-65-67	2730**66-70-71	2750**69-74-75
56A	2655	2651*/51-51-56	2719*/50-52-56	2743*/51-52-56	2767*/51-52-56
		2664**55-58-61	2761**62-66-68	2788**67-71-72	2811**71-76-77
54A	2720	2710*/53-53-57	2781*/52-53-57	2806*/52-53-57	2830*/53-53-57
		2721**56-59-62	2820**63-67-69	2848**67-72-73	2872**72-76-78
52	2788	2771*/55-55-59	2844*/54-55-59	2870*/54-55-59	2895*/54-55-59
		2780**57-59-63	2882**64-68-70	2912**68-72-74	2938**72-77-79
50	2860	2836*/56-56-61	2910*/55-57-61	2937*/56-57-61	2963*/56-57-61
		2842**57-59-63	2947**66-69-71	2979**69-73-75	3005**73-78-79
48	2937	2904*/57-58-63	2979*/56-59-64	3007*/57-59-64	3034*/58-59-64
			3015**67-69-72	3046**70-74-76	3073**73-78-80
46	3012	2962*/57-60-64	3046*/58-61-66	3075*/58-61-66	3103*/59-61-66
			3078**67-70-73	3111**70-74-76	3140**73-78-80
44	3083	3015*/57-61-66	3108*/59-63-68	3139*/60-63-68	3168*/60-63-68
			3138**67-70-73	3172**70-74-77	3203**73-79-81
42	3151	3065*/58-62-67	3168*/60-65-69	3199*/61-65-69	3230*/62-65-69
			3195**67-70-74	3230**70-75-78	3262**73-79-81
40	3220	3116*/58-64-69	3229*/61-67-71	3261*/62-67-71	3293*/63-67-71
			3253**67-71-74	3290**70-75-78	3325**74-79-82
38	3282	3162*/58-65-70	3283*/62-68-73	3318*/63-68-73	3353*/64-68-73
			3306**67-71-75	3345**70-75-79	3382**74-80-82
36	3349	3210*/58-66-71	3349*/65-70-74	3378*/64-70-74	3415*/65-70-74
			3362**67-71-75	3403**70-76-79	3457**73-80-83
34	3409	3251*/58-67-72	3409*/67-71-76	3444*/65-71-76	3493*/66-71-76
			3412**67-71-76	3473**70-76-79	3516**73-80-83
32	3478	3290F/58-68-73	3478*/66-71-76	3502*/65-71-76	3538*/65-71-76
			3481**67-71-76	3525**70-76-80	3565**73-80-83
30	3490	3304F/58-68-74	3490*/66-71-76	3514*/65-71-76	3549*/66-71-76
			3495**67-72-76	3538**70-76-80	3579**74-81-84
28	3490	3312*/59-68-74	3490*/65-71-76	3518*/65-71-76	3553*/66-71-76
			3500**67-72-77	3543**71-77-81	3584**74-81-84
26	3491	3318*/59-68-74	3491*/65-71-76	3521*/65-71-76	3557*/66-71-76
			3506**68-73-77	3549**71-77-81	3589**75-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 930 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01L	19	434	0	71	1194	0	84	2060	0
	279	8153	0	543	16247	0	546	43540	0
	564	43543	0	595	43679	0	611	43830	0
	677	43906	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 01L BASED ON A 15 DEGREE
BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D5.0 GRM VOR, TO A MAG COURSE
OF 181 DEGREES

ELEVATION 681 FT

RUNWAY 01L

ENGM

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3491	3325*/59-69-74	3491*/65-71-76	3525*/65-71-76	3560*/66-71-76
			3511**68-73-78	3554**72-78-81	3594**75-82-85
22	3491	3331*/60-69-74	3493*/64-71-76	3529*/65-71-76	3564*/66-71-76
			3517**69-74-78	3559**72-78-82	3600**76-83-86
20	3492	3338*/60-69-74	3497*/64-71-76	3533*/65-71-76	3568*/66-71-76
			3522**69-74-78	3565**73-79-82	3605**76-83-86
18	3492	3344*/61-69-75	3500*/64-71-76	3536*/65-71-76	3571*/66-71-76
			3527**70-75-79	3570**73-79-83	3610**77-84-87
16	3493	3351*/61-69-75	3504*/65-71-76	3540*/65-71-76	3575*/66-71-76
			3532**70-75-79	3575**74-80-83	3615**77-84-87
14	3493	3357*/61-69-75	3508*/65-71-76	3544*/65-71-76	3579*/66-71-76
			3537**71-76-80	3580**74-80-84	3620**78-85-88
12	3494	3364*/62-70-75	3512*/65-71-76	3548*/65-71-76	3582*/66-71-76
			3543**71-76-80	3585**75-81-84	3625**78-86-88
10	3494	3371*/62-70-75	3516*/65-71-76	3551*/66-71-76	3586*/66-71-76
			3548**72-77-81	3591**75-82-85	3631**79-86-89
8	3495	3378*/63-70-75	3520*/65-71-76	3555*/66-71-76	3590*/66-71-76
			3554**72-78-81	3596**76-82-85	3636**79-87-89
6	3495	3384*/63-70-75	3524*/65-71-76	3559*/66-71-76	3593*/66-71-76
			3559**73-78-82	3602**76-83-86	3641**80-87-90
4	3495	3391*/64-70-76	3527*/65-71-76	3563*/66-71-76	3597*/67-71-76
			3565**73-79-82	3607**77-83-86	3647**80-88-90
2	3496	3397*/64-71-76	3531*/65-71-76	3566*/66-71-76	3600*/67-71-76
			3570**74-79-83	3613**77-84-87	3652**81-88-91
0	3496	3404*/64-71-76	3534*/65-71-76	3569*/66-71-76	3604*/67-71-76
			3576**74-80-83	3618**78-84-87	3657**81-89-91
-2	3496	3410*/65-71-76	3538*/65-71-76	3573*/66-71-76	3607*/67-71-76
			3581**75-80-84	3623**78-85-88	3662**82-90-92
-4	3496	3420*/65-71-76	3541*/65-71-76	3576*/66-71-76	3610*/67-71-76
			3586**75-81-84	3628**79-86-88	3667**82-90-92
-6	3496	3430*/66-71-76	3545*/65-71-76	3579*/66-71-76	3613*/67-71-76
			3592**76-81-85	3633**79-86-89	3672**83-91-93
-8	3496	3439*/66-71-76	3548*/66-71-76	3583*/66-71-76	3616*/67-71-76
			3597**76-82-85	3639**80-87-89	3677**84-92-93
-10	3496	3448*/66-71-76	3551*/66-71-76	3586*/66-71-76	3619*/67-71-76
			3603**77-83-86	3644**80-87-90	3682**84-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 930 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01L	19	434	0	71	1194	0	84	2060	0
	279	8153	0	543	16247	0	546	43540	0
	564	43543	0	595	43679	0	611	43830	0
	677	43906	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 01L BASED ON A 15 DEGREE

BANKED CLIMBING -RIGHT- TURN, COMMENCED AT D5.0 GRM VOR, TO A MAG COURSE OF 181 DEGREES

ELEVATION 681 FT

RUNWAY 01R

ENGM

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2533	2425*/43-44-49	2519*/48-48-52	2543*/47-48-52	2569*/48-48-52
			2534**52-54-57	2569**55-57-60	2602**56-59-62
58A	2590	2468*/44-46-50	2569*/49-49-53	2595*/49-50-54	2621*/49-50-54
			2583**53-55-58	2617**55-58-61	2652**58-60-63
56A	2655	2517*/44-47-52	2628*/51-51-55	2655*/51-52-56	2681*/51-52-56
			2639**54-56-59	2674**56-59-62	2708**59-62-64
54A	2720	2564*/45-48-53	2686*/52-52-57	2717*/53-53-57	2741*/53-53-57
			2694**55-56-60	2731**57-59-62	2765**60-62-65
52	2788	2614*/46-50-55	2746*/54-54-58	2778*/55-55-59	2804*/54-55-59
			2752**55-56-60	2789**58-60-64	2824**61-63-66
50	2860	2666F/47-51-56	2810*/56-56-60	2843*/57-57-61	2869*/56-57-61
				2850**59-59-63	2888**62-63-67
48	2937	2713F/48-52-58	2872*/56-57-62	2912*/59-59-63	2938*/58-59-64
					2953**62-63-67
46	3012	2753F/48-53-59	2925*/56-59-63	2973*/59-60-65	3012*/61-61-66
					3015**62-63-67
44	3083	2792F/49-54-60	2974*/56-60-65	3027*/59-61-66	3072*/62-63-67
42	3151	2830F/49-55-61	3021*/56-61-66	3075*/59-63-68	3127*/62-64-69
40	3220	2869F/49-56-62	3066F/57-62-67	3125*/60-64-69	3181*/62-66-70
38	3282	2904F/50-57-63	3103F/57-63-68	3168*/60-65-70	3226*/63-67-71
36	3349	2941F/50-57-65	3142F/58-64-70	3212F/60-66-71	3273*/63-68-73
34	3409	2973F/50-58-65	3176F/58-65-70	3246F/61-67-72	3315*/63-69-74
32	3478	3003F/50-59-66	3208F/58-65-71	3280F/61-67-73	3356F/64-69-75
30	3490	3015F/51-59-67	3222F/59-66-72	3294F/61-68-73	3371*/64-70-75
28	3490	3023F/51-59-67	3231F/59-66-72	3304F/62-68-74	3379*/64-70-75
26	3491	3032F/51-60-67	3240F/59-66-72	3315F/62-68-74	3387*/65-70-75
24	3491	3040F/52-60-67	3250F/60-66-72	3325F/62-69-74	3394*/65-70-76
22	3491	3049F/52-60-68	3259F/60-67-73	3335F/63-69-74	3402*/65-71-76
20	3492	3057F/52-61-68	3269F/60-67-73	3346F/63-69-75	3410*/66-71-76
18	3492	3066F/52-61-68	3279F/61-67-73	3354*/63-69-75	3424*/66-71-76
16	3493	3075F/53-61-68	3289F/61-68-73	3362*/64-70-75	3437*/66-71-76
14	3493	3084F/53-61-68	3299F/61-68-74	3370*/64-70-75	3449*/67-71-76
12	3494	3093F/53-62-69	3310F/61-68-74	3378*/64-70-75	3460*/67-71-76
10	3494	3102F/54-62-69	3321F/62-68-74	3386*/65-70-75	3469*/67-71-76
8	3495	3111F/54-62-69	3330*/62-69-74	3394*/65-70-76	3477*/68-71-76
6	3495	3121F/54-62-69	3338*/63-69-74	3402*/66-71-76	3486*/68-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 790 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2950 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01R	45	687	0	46	718	0	63	1052	0
	65	1153	0	78	1286	0	89	1423	0
	258	8243	0	494	13830	0	556	54543	0
	735	55548	0	755	55550	0	767	55550	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 01R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D5.0 GRM VOR, TO A MAG COURSE OF 197 DEGREES

ELEVATION 681 FT

RUNWAY 01R ENGM

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

GARDERMOEN

OSLO

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
4	3495	3130F/55-63-70	3346*/63-69-75	3411*/66-71-76	3492*/69-71-76
2	3496	3140F/55-63-70	3354*/63-69-75	3424*/66-71-76	3496*/69-71-76
					3497**69-72-76
0	3496	3149F/55-63-70	3362*/64-70-75	3435*/67-71-76	3496*/68-71-76
					3503**70-72-77
-2	3496	3159F/56-64-70	3370*/64-70-75	3444*/67-71-76	3496*/68-71-76
					3509**70-73-77
-4	3496	3168F/56-64-70	3378*/65-70-75	3453*/67-71-76	3496*/67-71-76
					3515**71-73-78
-6	3496	3178F/56-64-71	3386*/65-70-75	3461*/68-71-76	3498*/67-71-76
					3521**71-74-78
-8	3496	3188F/57-65-71	3394*/65-70-76	3470*/68-71-76	3501*/67-71-76
					3526**72-74-79
-10	3496	3198F/57-65-71	3402*/66-71-76	3477*/69-71-76	3505*/67-71-76
					3532**72-75-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 790 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2950 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01R	45	687	0	46	718	0	63	1052	0
	65	1153	0	78	1286	0	89	1423	0
	258	8243	0	494	13830	0	556	54543	0
	735	55548	0	755	55550	0	767	55550	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 01R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D5.0 GRM VOR, TO A MAG COURSE OF 197 DEGREES

ELEVATION 681 FT

RUNWAY 19L

ENGM

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2533	2503*/42-47-51	2627*/47-48-52	2645*/47-48-52	2660*/47-48-52
			2605**51-57-60	2631**55-61-63	2655**58-65-67
58A	2590	2544*/43-48-52	2677*/49-50-54	2705*/48-50-54	2721*/49-50-54
			2654**52-58-61	2681**55-62-64	2705**59-65-67
56A	2655	2591*/43-49-54	2736*/50-52-56	2765*/50-52-56	2788*/51-52-56
			2711**53-58-61	2738**56-62-65	2762**60-66-68
54A	2720	2638*/44-51-55	2794*/52-53-57	2824*/52-53-57	2854*/52-53-57
			2767**54-59-62	2794**57-63-66	2819**60-67-69
52	2788	2687*/45-52-57	2852*/54-55-59	2886*/54-55-59	2916*/54-55-59
			2823**54-60-63	2851**57-63-66	2878**60-67-70
50	2860	2737*/46-53-58	2908*/55-57-61	2950*/56-57-61	2981*/56-57-61
			2883**54-60-64	2912**57-64-67	2940**61-68-70
48	2937	2786*/46-54-60	2955*/54-59-64	3013*/57-59-64	3051*/58-59-64
			2946**54-60-64	2976**57-64-68	3005**61-68-71
46	3012	2832*/46-56-61	3002*/54-61-65	3068*/58-61-66	3117*/60-61-66
				3039**57-64-68	3069**61-68-72
44	3083	2873F/46-57-62	3049*/55-62-67	3113*/58-63-68	3174*/61-63-68
				3097**58-65-69	3128**61-69-72
42	3151	2912F/47-57-63	3094*/55-63-68	3155*/58-65-69	3220*/61-65-69
				3153**58-65-70	3186**61-69-73
40	3220	2952F/47-58-65	3141*/55-64-69	3202*/58-66-71	3273*/62-67-71
					3244**61-69-73
38	3282	2988F/48-59-66	3182*/56-65-70	3245*/58-67-72	3314*/62-68-73
					3297**61-70-74
36	3349	3025F/48-60-67	3226*/56-66-72	3290*/59-68-73	3358*/62-70-74
					3353**61-70-75
34	3409	3058F/48-61-68	3264*/56-67-73	3330*/59-69-74	3398*/62-71-76
32	3478	3089F/48-62-68	3299F/56-68-74	3370*/59-70-75	3459*/61-71-76
30	3490	3101F/49-62-69	3313F/57-68-74	3384*/59-70-75	3484*/62-71-76
28	3490	3110F/49-62-69	3323F/57-69-74	3393*/60-70-76	3495*/62-71-76
					3492**62-72-76
26	3491	3119F/49-62-69	3333*/57-69-74	3402*/60-71-76	3505*/63-71-76
					3497**62-72-76
24	3491	3128F/49-63-69	3342*/58-69-74	3411*/60-71-76	3515*/63-71-76
					3503**63-72-77
22	3491	3137F/50-63-70	3351*/58-69-75	3427*/61-71-76	3526*/64-71-76
					3508**63-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 870 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2950 M LONG WITH 400 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19L	17	591	0	22	644	0	23	671	0
	549	15331	0	265	25735	0	321	26002	0
	459	33964	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 681 FT

RUNWAY 19L

ENGM

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 23-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3492	3146F/50-63-70	3360*/58-70-75	3443*/61-71-76	3536*/64-71-76
					3514**64-73-78
18	3492	3155F/50-64-70	3369*/59-70-75	3458*/61-71-76	3546*/65-71-76
					3519**64-74-78
16	3493	3164F/51-64-70	3378*/59-70-75	3473*/61-71-76	3557*/65-71-76
					3524**65-75-79
14	3493	3173F/51-64-71	3387*/59-70-75	3488*/62-71-76	3565*/66-71-76
					3529**65-75-79
12	3494	3183F/51-64-71	3396*/60-70-76	3497*/62-71-76	3571*/66-71-76
				3495**62-72-76	3535**66-76-79
10	3494	3192F/51-65-71	3405*/60-71-76	3508*/63-71-76	3579*/66-71-76
				3501**62-72-77	3540**66-76-80
8	3495	3202F/52-65-71	3417*/60-71-76	3518*/63-71-76	3590*/67-71-76
				3507**63-73-77	3546**66-77-80
6	3495	3211F/52-65-72	3433*/60-71-76	3529*/64-71-76	3600*/67-71-76
				3512**63-73-77	3551**67-77-81
4	3495	3221F/52-66-72	3449*/61-71-76	3540*/64-71-76	3610*/68-71-76
				3518**64-74-78	3557**67-78-81
2	3496	3231F/53-66-72	3465*/61-71-76	3551*/65-71-76	3620*/68-71-76
				3523**64-74-78	3562**68-78-82
0	3496	3241F/53-66-72	3480*/61-71-76	3561*/65-71-76	3630*/69-71-76
				3529**65-75-79	3568**68-79-82
-2	3496	3251F/53-66-72	3491*/62-71-76	3567*/65-71-76	3640*/69-71-76
				3534**65-75-79	3573**69-79-83
-4	3496	3261F/54-67-73	3501*/62-71-76	3574*/66-71-76	3648*/70-71-76
			3499**62-72-76	3539**66-76-80	3578**69-80-83
-6	3496	3270*/54-67-73	3512*/63-71-76	3584*/66-71-76	3649*/70-71-76
			3504**62-72-77	3545**66-76-80	3583**70-81-84
-8	3496	3279*/54-67-73	3523*/63-71-76	3595*/67-71-76	3649*/70-71-76
			3510**63-73-77	3550**67-77-81	3589**70-81-84
-10	3496	3288*/55-68-73	3534*/64-71-76	3605*/67-71-76	3649*/70-71-76
			3515**63-73-78	3555**67-78-81	3594**71-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 870 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2950 M LONG WITH 400 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19L	17	591	0	22	644	0	23	671	0
	549	15331	0	265	25735	0	321	26002	0
	459	33964	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 681 FT

RUNWAY 19R

ENGM

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2533	2595*/47-48-52	2558*/47-48-52	2573*/47-48-52	2587*/47-48-52
		2625**56-60-62	2688**65-71-72	2694**67-72-73	2694**67-72-73
58A	2590	2649*/48-50-54	2613*/49-50-54	2626*/49-50-54	2640*/49-50-54
		2673**56-60-63	2737**65-72-73	2750**68-74-75	2750**69-74-75
56A	2655	2706*/50-52-56	2668*/51-52-56	2682*/51-52-56	2695*/51-52-56
		2727**56-61-63	2794**66-72-73	2811**69-76-77	2814**70-76-77
54A	2720	2767*/52-53-57	2723*/52-53-57	2739*/52-53-57	2755*/52-53-57
		2781**56-61-64	2851**66-72-74	2870**69-76-77	2881**72-78-79
52	2788	2834*/54-55-59	2789*/54-55-59	2805*/54-55-59	2821*/54-55-59
		2837**56-61-65	2912**66-72-74	2933**69-76-78	2951**73-80-81
50	2860	2906*/56-57-61	2948*/56-57-61	2876*/56-57-61	2892*/56-57-61
		2897**56-62-65	2976**66-73-75	2998**70-77-78	3018**73-80-82
48	2937	2979*/56-59-64	3021*/58-59-64	2950*/58-59-64	2966*/58-59-64
		2960**56-62-66	3042**66-73-75	3066**70-77-79	3088**73-81-82
46	3012	3026*/56-61-66	3091*/60-61-66	3018*/60-61-66	3033*/60-61-66
		3020**56-62-66	3107**66-73-76	3132**70-77-79	3155**73-81-83
44	3083	3073*/56-63-67	3157*/62-63-68	3171*/62-63-68	3097*/62-63-68
			3168**66-74-77	3195**70-77-80	3220**73-81-83
42	3151	3118*/56-64-69	3223*/63-65-69	3238*/63-65-69	3159*/64-65-69
			3226**66-74-77	3254**70-78-80	3280**73-81-84
40	3220	3162F/57-65-70	3290*/65-67-71	3306*/65-67-71	3222*/65-67-71
			3286**66-74-78	3315**70-78-81	3344**73-82-84
38	3282	3200F/57-66-71	3355*/67-68-73	3371*/67-68-73	3284*/67-68-73
			3341**66-75-78	3373**70-78-81	3403**73-82-85
36	3349	3240F/57-67-72	3421*/67-70-74	3441*/68-70-74	3461*/68-70-74
			3399**66-75-79	3442**70-79-82	3487**73-82-84
34	3409	3275F/58-68-73	3487*/67-71-76	3506*/69-71-76	3523*/70-71-76
			3467**66-75-79	3505**69-79-82	3538**73-82-85
32	3478	3309F/58-68-74	3544*/66-71-76	3563*/70-71-76	3581*/70-71-76
			3520**66-75-79	3555**69-79-82	3588**73-83-86
30	3490	3324F/58-69-74	3559*/67-71-76	3578*/70-71-76	3595*/70-71-76
			3533**66-76-80	3568**70-79-83	3601**73-83-86
28	3490	3333F/58-69-74	3562*/67-71-76	3581*/70-71-76	3599*/70-71-76
			3538**67-76-80	3573**70-80-83	3606**74-84-86
26	3491	3343F/59-69-74	3566*/68-71-76	3585*/70-71-76	3491*/70-71-76
			3543**67-77-80	3578**71-80-84	3611**74-84-87
24	3491	3353F/59-69-75	3569*/68-71-76	3588*/70-71-76	3495*/70-71-76
			3549**68-77-81	3583**71-81-84	3616**75-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 690 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.16 PERCENT FOR TODA AND -0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19R	18	369	0	19	459	0	328	13775	0
	394	14645	0	410	25191	0	423	25248	0
	463	32244	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 681 FT

RUNWAY 19R

ENGM

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

GARDERMOEN

OSLO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3491	3363F/59-70-75	3573*/69-71-76	3590*/70-71-76	3498*/70-71-76
			3554**68-78-81	3588**72-81-85	3621**75-85-88
20	3492	3373F/59-70-75	3576*/69-71-76	3593*/70-71-76	3502*/70-71-76
			3559**68-78-82	3593**72-82-85	3626**76-86-88
18	3492	3383F/60-70-75	3578*/70-71-76	3596*/70-71-76	3505*/70-71-76
			3564**69-79-82	3598**73-83-85	3631**76-86-89
16	3493	3393F/60-70-76	3581*/70-71-76	3599*/70-71-76	3509*/70-71-76
			3569**69-79-83	3604**73-83-86	3636**77-87-89
14	3493	3403F/60-71-76	3584*/70-71-76	3601*/70-71-76	3512*/70-71-76
			3574**70-80-83	3609**74-84-86	3642**77-87-90
12	3494	3416F/61-71-76	3587*/70-71-76	3495*/70-71-76	3516*/70-71-76
			3580**70-80-84	3614**74-84-87	3647**78-88-90
10	3494	3435F/61-71-76	3589*/70-71-76	3499*/70-71-76	3520*/70-71-76
			3585**71-81-84	3619**75-85-87	3652**78-89-91
8	3495	3451*/61-71-76	3592*/70-71-76	3503*/70-71-76	3523*/70-71-76
			3590**71-81-85	3625**75-85-88	3658**79-89-91
6	3495	3466*/61-71-76	3595*/70-71-76	3506*/70-71-76	3527*/70-71-76
			3596**72-82-85	3630**76-86-88	3663**79-90-92
4	3495	3482*/61-71-76	3597*/70-71-76	3510*/70-71-76	3530*/70-71-76
			3601**72-83-86	3635**76-86-89	3667**80-90-92
2	3496	3492*/62-71-76	3600*/70-71-76	3513*/70-71-76	3533*/70-71-76
			3606**73-83-86	3640**77-87-89	3672**81-91-93
0	3496	3499*/62-71-76	3496*/70-71-76	3516*/70-71-76	3536*/70-71-76
		3499**62-72-76	3612**73-84-87	3645**77-88-90	3677**81-92-94
-2	3496	3509*/62-71-76	3499*/70-71-76	3519*/70-71-76	3539*/70-71-76
		3504**63-72-77	3617**74-84-87	3650**78-88-91	3682**82-92-94
-4	3496	3520*/63-71-76	3502*/70-71-76	3522*/70-71-76	3542*/70-71-76
		3510**63-73-77	3622**74-85-88	3656**78-89-91	3687**82-93-95
-6	3496	3531*/64-71-76	3505*/70-71-76	3525*/70-71-76	3545*/70-71-76
		3515**64-73-78	3627**75-85-88	3661**79-89-92	3692**83-93-95
-8	3496	3542*/64-71-76	3508*/70-71-76	3528*/70-71-76	3548*/70-71-76
		3521**64-74-78	3632**75-86-89	3665**79-90-92	3697**83-94-96
-10	3496	3553*/65-71-76	3511*/70-71-76	3531*/70-71-76	3551*/70-71-76
		3526**64-74-79	3637**76-87-89	3670**80-91-93	3701**84-95-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 700 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.16 PERCENT FOR TODA AND -0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19R	18	369	0	19	459	0	328	13775	0
	394	14645	0	410	25191	0	423	25248	0
	463	32244	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 04L KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2511*/47-47-52	2600*/49-50-54	2627*/49-50-54	2653*/49-50-54
		2514**50-50-54	2618**55-57-60	2653**60-60-62	2688**59-62-64
58A	2652	2560*/48-48-53	2652*/50-51-56	2679*/50-51-56	2706*/51-51-56
		2562**50-50-55	2668**55-58-61	2703**58-61-63	2738**60-63-65
56A	2719	2616*/50-50-55	2717*/53-53-57	2740*/52-53-57	2768*/53-53-57
		2617**52-52-56	2726**57-59-62	2762**59-61-64	2797**61-63-66
54	2788	2675*/52-52-56	2779*/55-55-59	2804*/54-55-59	2832*/54-55-59
			2786**58-60-64	2822**60-62-65	2858**62-64-67
52	2865	2739*/53-53-58	2847*/57-57-61	2871*/56-57-62	2901*/56-57-62
			2852**59-61-64	2889**61-64-67	2926**63-65-68
50	2940	2801*/55-55-60	2913*/58-58-63	2940*/58-59-64	2968*/58-59-64
			2916**61-61-65	2954**62-64-68	2992**64-66-70
48	3017	2865*/57-57-62	2980*/60-60-65	3017*/61-61-66	3036*/59-61-66
			2982**63-63-67	3020**65-65-68	3059**66-68-71
46	3090	2925*/58-58-64	3043*/62-62-67	3081*/63-63-67	3099*/60-63-68
			3045**64-64-68	3084**66-66-70	3123**67-68-72
44	3162	2983*/59-60-65	3105*/63-63-68	3144*/65-65-69	3162*/62-65-70
				3146**67-67-71	3186**68-69-73
42	3232	3038*/59-61-67	3166*/65-65-70	3206*/66-66-71	3232*/65-67-71
				3208**69-69-73	3248**70-70-74
40	3302	3087*/59-62-68	3225*/66-66-71	3266*/68-68-72	3302*/67-69-73
				3267**70-70-74	3311**72-72-76
38	3367	3130*/59-63-69	3279*/68-68-73	3323*/69-69-74	3366*/70-70-75
					3369**73-73-77
36	3440	3176*/60-64-71	3338*/69-69-74	3383*/70-70-75	3435*/71-71-76
					3438**73-75-79
34	3507	3216*/60-65-72	3387*/69-70-75	3450*/71-71-76	3503*/72-72-76
				3451**72-72-77	3507**74-74-79
32	3529	3233*/60-66-72	3407*/69-71-76	3480*/71-71-76	3525*/72-72-77
				3482**71-73-77	3528**75-75-79
30	3530	3240*/60-66-72	3415*/69-71-76	3486*/71-71-76	3529*/72-72-77
				3488**72-73-77	3533**75-75-79
28	3531	3247*/61-66-72	3426*/70-71-76	3491*/71-71-76	3531*/71-72-77
				3493**72-73-78	3539**76-76-80
26	3531	3254*/61-66-73	3436*/70-71-76	3496*/71-71-76	3531*/71-72-77
				3498**73-74-78	3544**76-76-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3460 M LONG WITH 0 M OF CLEARWAY AND 36 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	55	554	0	65	641	0	77	843	0
	79	845	0	120	2530	0	264	17387	0
	273	17793	0	290	18058	0	365	19888	0
	467	20294	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 04L KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3532	3261*/61-67-73	3445*/70-71-76	3500*/71-71-76	3532*/70-72-77
				3503**73-74-78	3549**77-77-81
22	3533	3267*/62-67-73	3452*/71-71-76	3505*/72-72-76	3533*/70-72-77
			3453**71-72-76	3509**74-74-78	3554**77-78-81
20	3534	3274*/62-67-73	3459*/71-71-76	3510*/72-72-76	3534*/69-72-77
			3460**71-72-77	3514**74-74-79	3560**78-78-82
18	3534	3281*/63-67-73	3466*/71-71-76	3515*/72-72-76	3534*/69-72-77
			3468**71-72-77	3519**75-75-79	3565**78-79-82
16	3535	3288*/63-67-73	3472*/71-71-76	3519*/72-72-77	3535*/68-72-77
			3475**72-73-77	3524**75-76-80	3571**77-79-82
14	3536	3295*/63-68-74	3479*/71-71-76	3524*/72-72-77	3536*/68-72-77
			3482**72-73-78	3530**76-76-80	3576**77-79-83
12	3537	3302*/64-68-74	3485*/71-71-76	3529*/72-72-77	3537*/67-72-77
			3489**73-73-78	3535**76-77-81	3582**77-79-83
10	3538	3309*/64-68-74	3490*/71-71-76	3534*/72-72-77	3539*/67-72-77
			3494**73-74-78	3541**75-77-81	3587**77-79-83
8	3539	3315*/65-68-74	3495*/71-71-76	3538*/72-72-77	3544*/67-72-77
			3499**73-75-79	3546**77-78-82	3592**78-80-84
6	3539	3322*/65-68-74	3500*/71-71-76	3539*/72-72-77	3548*/67-72-77
			3505**73-75-79	3552**78-78-82	3598**78-81-84
4	3540	3329*/65-68-74	3504*/71-71-76	3540*/71-72-77	3553*/67-72-77
			3510**75-75-80	3557**76-78-82	3603**79-81-85
2	3540	3336*/66-69-74	3509*/72-72-76	3540*/70-72-77	3557*/67-72-77
			3515**74-76-80	3562**76-79-82	3609**79-82-85
0	3540	3343*/66-69-75	3513*/72-72-76	3540*/70-73-77	3561*/67-73-77
			3520**74-77-81	3567**76-79-82	3614**80-82-86
-2	3541	3350*/67-69-75	3517*/72-72-77	3541*/69-73-77	3565*/67-73-77
			3525**75-77-81	3572**77-79-83	3619**80-83-86
-4	3541	3356*/67-69-75	3522*/72-72-77	3541*/69-73-77	3569*/67-73-77
			3530**77-78-81	3577**78-80-84	3624**81-84-87
-6	3541	3363*/68-69-75	3526*/72-72-77	3541*/68-73-77	3573*/68-73-77
			3535**77-78-82	3582**78-81-84	3630**81-84-87
-8	3541	3370*/68-70-75	3530*/72-72-77	3541*/67-73-77	3576*/68-73-77
			3540**76-78-82	3587**79-81-85	3635**84-84-87
-10	3541	3376*/69-70-75	3534*/72-72-77	3541*/67-73-77	3580*/68-73-77
			3545**76-78-82	3593**79-82-85	3640**81-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3460 M LONG WITH 0 M OF CLEARWAY AND 36 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04L	55	554	0	65	641	0	77	843	0
	79	845	0	120	2530	0	264	17387	0
	273	17793	0	290	18058	0	365	19888	0
	467	20294	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 04R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

60A	2595	2295*/37-39-45	2441*/45-45-50	2484*/46-46-51	2524*/47-47-52
					2526**49-49-53
58A	2652	2332*/38-40-47	2484*/46-46-51	2528*/47-47-52	2571*/49-49-53
56A	2719	2375*/39-42-48	2534*/47-47-52	2579*/49-49-54	2624*/50-50-55
54	2788	2419*/40-43-49	2585*/49-49-54	2632*/50-50-55	2678*/52-52-56
52	2865	2467*/40-44-51	2639*/50-50-56	2690*/52-52-57	2737*/53-53-58
50	2940	2515*/41-45-52	2691*/50-51-57	2746*/53-53-59	2795*/55-55-60
48	3017	2562*/42-47-54	2742*/51-53-59	2802*/54-55-60	2853*/56-56-62
46	3090	2605*/43-48-55	2790*/52-54-60	2849*/55-56-62	2907*/57-58-63
44	3162	2648*/44-49-57	2834*/52-55-61	2894*/55-57-63	2955*/58-59-64
42	3232	2692*/44-50-58	2877*/53-56-63	2939*/56-58-64	3001*/58-60-66
40	3302	2733*/45-51-59	2919*/53-57-64	2981*/56-59-65	3045*/59-61-67
38	3367	2768*/45-52-60	2956*/53-58-65	3019*/56-60-67	3084*/59-62-68
36	3440	2804*/46-53-61	2996*/54-59-66	3060*/57-61-68	3126*/59-63-69
34	3507	2835*/46-53-62	3030*/54-60-67	3096*/57-62-69	3162*/60-64-70
32	3529	2850*/46-54-63	3047*/54-60-68	3113*/57-62-69	3180*/60-64-71
30	3530	2858*/46-54-63	3055*/55-60-68	3121*/57-62-69	3188*/60-64-71
28	3531	2865*/47-54-63	3063*/55-60-68	3129*/58-63-70	3197*/61-65-71
26	3531	2873*/47-54-63	3071*/55-61-68	3138*/58-63-70	3205*/61-65-71
24	3532	2881*/47-55-63	3079*/56-61-68	3146*/59-63-70	3214*/61-65-72
22	3533	2889*/48-55-64	3087*/56-61-69	3154*/59-63-70	3222*/62-65-72
20	3534	2896*/48-55-64	3095*/56-61-69	3163*/59-64-70	3231*/62-66-72
18	3534	2904*/48-55-64	3104*/57-62-69	3171*/60-64-71	3239*/62-66-72
16	3535	2912*/49-56-64	3112*/57-62-69	3180*/60-64-71	3248*/63-66-72
14	3536	2920*/49-56-64	3120*/57-62-69	3188*/60-64-71	3257*/63-66-73
12	3537	2928*/49-56-65	3129*/58-63-70	3197*/61-65-71	3266*/64-67-73
10	3538	2937*/49-56-65	3137*/58-63-70	3206*/61-65-71	3275*/64-67-73
8	3539	2945*/50-57-65	3146*/58-63-70	3214*/61-65-72	3284*/64-67-73
6	3539	2953*/50-57-65	3155*/59-63-70	3223*/62-65-72	3293*/65-67-73
4	3540	2961*/50-57-65	3163*/59-64-70	3232*/62-66-72	3303*/65-68-74
2	3540	2970*/51-58-66	3172*/60-64-71	3241*/62-66-72	3312*/65-68-74
0	3540	2978*/51-58-66	3180*/60-64-71	3249*/63-66-72	3321*/66-68-74
-2	3541	2986*/51-58-66	3189*/60-64-71	3258*/63-66-73	3330*/66-68-74
-4	3541	2994*/52-58-66	3197*/61-65-71	3267*/64-67-73	3339*/67-69-74
-6	3541	3002*/52-59-66	3206*/61-65-71	3276*/64-67-73	3348*/67-69-75
-8	3541	3010*/53-59-67	3215*/61-65-72	3285*/64-67-73	3357*/67-69-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2560 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04R	1	2	0	2	48	0	22	160	0
	33	269	0	39	473	0	52	556	0
	59	1062	0	77	1433	0	87	1607	0
	346	19508	0	355	19550	0	365	19802	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 04R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY
NEWYORK

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-10 3541 3018*/53-59-67 3223*/62-65-72 3294*/65-67-74 3366*/68-69-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2560 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04R	1	2	0	2	48	0	22	160	0
	33	269	0	39	473	0	52	556	0
	59	1062	0	77	1433	0	87	1607	0
	346	19508	0	355	19550	0	365	19802	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 13L KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

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NEWYORK

DATED 08-FEB-2017

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A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2410*/43-43-49	2516*/47-47-52	2550*/48-48-53	2583*/49-49-54
			2519**49-49-53	2555**52-52-56	2592**53-55-58
58A	2652	2456*/45-45-50	2564*/49-49-53	2599*/50-50-54	2633*/51-51-55
			2567**50-50-55	2604**53-53-57	2641**55-55-59
56A	2719	2509*/46-46-52	2620*/50-50-55	2656*/51-51-56	2692*/52-52-57
			2622**52-52-56	2660**53-53-58	2698**56-56-60
54	2788	2565*/48-48-53	2679*/52-52-57	2716*/53-53-57	2752*/54-54-58
			2680**52-52-57	2719**55-55-59	2757**57-57-61
52	2865	2625*/49-49-55	2742*/53-53-58	2781*/55-55-59	2818*/56-56-60
				2782**56-56-61	2822**58-58-62
50	2940	2684*/51-51-57	2805*/55-55-60	2844*/56-56-61	2883*/58-58-62
					2886**59-59-64
48	3017	2745*/52-53-59	2868*/57-57-62	2909*/58-58-63	2949*/59-59-64
					2950**60-60-65
46	3090	2795*/52-54-60	2927*/58-58-64	2970*/60-60-65	3011*/61-61-66
44	3162	2842*/53-55-62	2985*/60-60-65	3028*/61-61-66	3071*/62-62-67
42	3232	2887*/53-56-63	3043*/61-61-67	3086*/63-63-68	3130*/64-64-69
40	3302	2930*/53-57-64	3096*/62-63-68	3143*/64-64-69	3188*/65-65-71
38	3367	2968*/53-58-65	3141*/62-64-70	3194*/65-65-71	3240*/66-67-72
36	3440	3009*/54-59-66	3188*/62-65-71	3243*/65-66-72	3296*/68-68-73
34	3507	3044*/54-60-67	3227*/62-66-72	3287*/65-67-73	3345*/68-69-75
32	3529	3060*/54-60-68	3246*/62-66-72	3306*/65-68-74	3365*/68-69-75
30	3530	3068*/54-61-68	3253*/63-66-73	3313*/66-68-74	3372*/69-70-75
28	3531	3075*/55-61-68	3260*/63-67-73	3320*/66-68-74	3379*/69-70-75
26	3531	3082*/55-61-68	3268*/64-67-73	3327*/67-68-74	3385*/70-70-75
24	3532	3090*/55-61-69	3275*/64-67-73	3334*/67-69-74	3392*/70-70-76
22	3533	3097*/56-62-69	3282*/64-67-73	3341*/67-69-74	3397*/70-70-76
20	3534	3105*/56-62-69	3289*/65-67-73	3348*/68-69-75	3403*/70-70-76
18	3534	3112*/56-62-69	3296*/65-68-74	3355*/68-69-75	3409*/71-71-76
16	3535	3120*/57-62-69	3303*/66-68-74	3361*/69-69-75	3416*/71-71-76
14	3536	3128*/57-62-70	3310*/66-68-74	3368*/69-70-75	3425*/71-71-76
12	3537	3135*/57-63-70	3317*/66-68-74	3375*/70-70-75	3433*/71-71-76
10	3538	3143*/58-63-70	3324*/67-68-74	3381*/70-70-75	3441*/71-71-76
					3442**71-71-76
8	3539	3151*/58-63-70	3331*/67-69-74	3387*/70-70-75	3448*/71-71-76
					3451**72-72-77
6	3539	3159*/58-63-70	3338*/68-69-74	3392*/70-70-76	3455*/71-71-76
					3459**72-72-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3048 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.01 PERCENT FOR TODA AND 0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
13L	1	2	0	2	6	0	15	334	0
	46	340	0	62	540	0	70	653	0
	79	767	0	95	2237	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 13L KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY
NEWYORK
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

4	3540	3166*/59-64-70	3344*/68-69-75	3398*/70-70-76	3462*/71-71-76
					3466**72-72-77
2	3540	3173*/59-64-71	3351*/69-69-75	3403*/70-70-76	3469*/71-71-76
					3474**73-73-77
0	3540	3180*/60-64-71	3358*/69-69-75	3408*/71-71-76	3475*/71-71-76
					3481**73-73-78
-2	3541	3187*/60-64-71	3363*/69-69-75	3414*/71-71-76	3481*/71-71-76
				3415**71-71-76	3488**73-73-78
-4	3541	3194*/60-65-71	3369*/69-70-75	3422*/71-71-76	3487*/71-71-76
				3423**72-72-77	3493**74-74-78
-6	3541	3201*/61-65-71	3374*/70-70-75	3429*/71-71-76	3492*/71-71-76
				3432**72-72-77	3498**74-74-79
-8	3541	3208*/61-65-71	3379*/70-70-75	3436*/71-71-76	3496*/71-71-76
				3439**72-72-77	3503**75-75-79
-10	3541	3215*/62-65-72	3384*/70-70-75	3443*/71-71-76	3500*/71-71-76
				3447**73-73-77	3508**75-75-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

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LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
13L	1	2	0	2	6	0	15	334	0
	46	340	0	62	540	0	70	653	0
	79	767	0	95	2237	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 13R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2675*/47-50-54	2736*/49-50-54	2755*/49-50-54	2774*/49-50-54
		2747**66-72-73	2761**68-75-76	2761**69-75-76	2761**69-75-76
58A	2652	2731*/49-51-56	2793*/50-51-56	2813*/50-51-56	2832*/51-51-56
		2800**67-73-74	2819**70-76-77	2819**70-76-77	2819**71-76-77
56A	2719	2795*/50-53-57	2860*/52-53-57	2880*/52-53-57	2900*/53-53-57
		2861**68-73-75	2885**71-78-79	2885**72-78-79	2885**72-78-79
54	2788	2860*/52-55-59	2928*/54-55-59	2950*/54-55-59	2970*/54-55-59
		2925**69-74-76	2958**73-81-82	2958**74-81-82	2958**74-81-82
52	2865	2931*/53-57-62	3002*/55-57-62	3024*/56-57-62	3045*/56-57-62
		2997**70-75-77	3040**75-83-84	3040**75-83-84	3040**76-83-84
50	2940	3000*/54-59-64	3073*/56-59-64	3096*/57-59-64	3119*/58-59-64
		3062**70-75-78	3119**76-85-86	3119**77-85-86	3119**78-85-86
48	3017	3070*/56-61-66	3147*/58-61-66	3171*/58-61-66	3194*/59-61-66
		3128**70-76-78	3189**77-86-87	3198**79-88-89	3198**79-88-89
46	3090	3137*/57-63-68	3216*/59-63-68	3241*/60-63-68	3266*/60-63-68
		3189**70-76-78	3259**77-86-88	3279**80-90-91	3279**81-90-91
44	3162	3202*/58-65-70	3285*/60-65-70	3312*/61-65-70	3339*/62-65-70
		3243**68-75-78	3329**77-87-88	3362**82-92-93	3362**83-92-93
42	3232	3265*/59-67-71	3354*/61-67-71	3382*/62-67-71	3409*/63-67-71
		3297**67-75-78	3395**77-87-89	3451**84-93-94	3451**83-93-94
40	3302	3328*/60-69-73	3427*/63-69-73	3467*/63-69-73	3499*/64-69-73
		3351**65-74-78	3491**77-88-89	3525**82-93-94	3535**84-95-96
38	3367	3386*/61-70-75	3504*/63-70-75	3533*/64-70-75	3560*/65-70-75
		3401**64-74-78	3547**77-88-90	3581**81-93-94	3608**85-97-98
36	3440	3463*/61-71-76	3564*/64-71-76	3593*/65-71-76	3622*/65-71-76
		3471**63-73-77	3600**75-87-90	3636**80-92-94	3668**85-97-98
34	3507	3519*/61-72-76	3617*/64-72-76	3647*/65-72-76	3677*/66-72-76
		3520**62-73-77	3650**74-87-90	3688**79-92-94	3723**84-97-98
32	3529	3540*/62-72-77	3639*/64-72-77	3669*/65-72-77	3699*/66-72-77
		3540**62-73-78	3671**74-88-90	3710**79-92-94	3745**84-97-99
30	3530	3544*/62-72-77	3642*/64-72-77	3673*/65-72-77	3703*/66-72-77
		3545**62-74-78	3677**75-88-91	3715**80-93-95	3750**84-98-99
28	3531	3547*/62-72-77	3645*/64-72-77	3676*/65-72-77	3706*/66-72-77
		3551**62-74-79	3682**76-89-91	3720**80-94-95	3755**85-98-00
26	3531	3551*/62-72-77	3649*/65-72-77	3679*/65-72-77	3709*/66-72-77
		3557**63-75-79	3688**76-89-92	3726**81-94-96	3760**85-99-00
24	3532	3555*/62-72-77	3652*/65-72-77	3683*/65-72-77	3712*/66-72-77
		3562**63-75-79	3693**77-90-92	3731**81-95-96	3765**86-00-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
13R	1	2	0	16	376	0	61	1326	0
	66	1424	0	83	1530	0	88	1533	0
	89	1917	0	97	2000	0	98	2001	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 13R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3533	3558*/62-72-77	3656*/65-72-77	3686*/66-72-77	3716*/66-72-77
		3568**64-76-80	3698**77-90-93	3736**82-95-97	3770**87-00-01
20	3534	3562*/62-72-77	3659*/65-72-77	3689*/66-72-77	3719*/66-72-77
		3573**64-76-80	3704**78-91-93	3741**82-96-98	3774**87-01-02
18	3534	3566*/62-72-77	3662*/65-72-77	3692*/66-72-77	3722*/67-72-77
		3578**65-77-81	3709**78-92-94	3746**83-97-98	3777**88-01-02
16	3535	3569*/62-72-77	3665*/65-72-77	3696*/66-72-77	3725*/67-72-77
		3584**65-77-81	3714**79-92-94	3751**84-97-99	3778**89-01-02
14	3536	3573*/62-72-77	3669*/65-72-77	3699*/66-72-77	3728*/67-72-77
		3590**66-78-82	3720**80-93-95	3756**84-98-99	3779**89-01-02
12	3537	3577*/62-72-77	3672*/65-72-77	3702*/66-72-77	3732*/67-72-77
		3596**66-78-82	3725**80-93-95	3761**85-99-00	3780**89-01-03
10	3538	3580*/63-72-77	3676*/65-72-77	3706*/66-72-77	3735*/67-72-77
		3602**67-79-83	3731**81-94-96	3767**86-99-00	3781**89-01-03
8	3539	3584*/63-72-77	3679*/65-72-77	3709*/66-72-77	3738*/67-72-77
		3608**68-80-83	3737**81-95-96	3772**86-00-01	3782**89-01-03
6	3539	3587*/63-72-77	3682*/65-72-77	3712*/66-72-77	3741*/67-72-77
		3613**68-80-84	3742**82-95-97	3777**87-01-02	3782**89-02-03
4	3540	3591*/63-72-77	3685*/66-72-77	3715*/66-72-77	3744*/67-72-77
		3619**69-81-84	3747**83-96-98	3781**88-01-02	3783**90-02-03
2	3540	3594*/63-72-77	3688*/66-72-77	3718*/66-72-77	3746*/67-72-77
		3624**69-81-85	3752**83-97-98	3783**88-02-03	3783**90-02-03
0	3540	3597*/63-73-77	3691*/66-73-77	3720*/67-73-77	3749*/67-73-77
		3630**70-82-85	3757**84-97-99	3784**89-02-03	3784**90-02-03
-2	3541	3600*/63-73-77	3694*/66-73-77	3723*/67-73-77	3751*/67-73-77
		3636**70-82-86	3762**85-98-99	3784**89-02-03	3784**90-02-03
-4	3541	3603*/63-73-77	3696*/66-73-77	3726*/67-73-77	3754*/67-73-77
		3641**71-83-86	3767**85-99-00	3784**89-02-03	3784**90-02-03
-6	3541	3606*/63-73-77	3699*/66-73-77	3728*/67-73-77	3756*/68-73-77
		3647**72-84-87	3772**86-00-01	3784**89-02-03	3784**90-02-03
-8	3541	3609*/63-73-77	3701*/66-73-77	3730*/67-73-77	3759*/68-73-77
		3653**72-84-87	3777**87-00-01	3785**89-02-03	3785**90-02-03
-10	3541	3612*/63-73-77	3704*/66-73-77	3733*/67-73-77	3761*/68-73-77
		3659**73-85-88	3781**87-01-02	3785**89-02-03	3785**90-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
13R	1	2	0	16	376	0	61	1326	0
	66	1424	0	83	1530	0	88	1533	0
	89	1917	0	97	2000	0	98	2001	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 22L KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2327*/37-41-46	2512*/45-47-52	2575*/48-49-53	2626*/49-50-54
					2617**51-52-56
58A	2652	2362*/37-42-48	2549*/46-48-53	2613*/49-50-54	2671*/51-51-56
					2665**52-53-57
56A	2719	2402*/38-43-49	2592*/47-49-54	2657*/50-51-56	2723*/53-53-57
					2721**53-54-58
54	2788	2444*/39-44-50	2636*/48-50-55	2702*/51-52-57	2770*/54-55-59
52	2865	2490*/40-45-52	2685*/49-51-57	2752*/52-54-59	2819*/54-56-60
50	2940	2535*/41-46-53	2732*/50-53-58	2800*/53-55-60	2865*/55-57-62
48	3017	2579*/42-47-54	2780*/51-54-60	2846*/53-56-61	2911*/56-58-63
46	3090	2620*/43-48-56	2822*/51-55-61	2888*/54-57-63	2955*/56-59-64
44	3162	2662*/43-49-57	2862*/52-56-62	2929*/54-58-64	2997*/57-60-66
42	3232	2704*/44-50-58	2902*/52-57-63	2970*/55-59-65	3039*/57-61-67
40	3302	2744*/45-51-59	2940*/53-58-64	3009*/55-60-66	3079*/58-62-68
38	3367	2777*/45-52-60	2975*/53-58-65	3045*/56-61-67	3116*/58-63-69
36	3440	2812*/45-53-61	3013*/53-59-66	3083*/56-61-68	3155*/59-64-70
34	3507	2842*/46-54-62	3045*/54-60-67	3116*/56-62-69	3188*/59-64-71
32	3529	2857*/46-54-63	3062*/54-60-68	3133*/57-63-70	3206*/59-65-71
30	3530	2865*/46-54-63	3071*/54-61-68	3142*/57-63-70	3215*/60-65-72
28	3531	2873*/47-54-63	3080*/55-61-68	3151*/57-63-70	3225*/60-65-72
26	3531	2881*/47-55-63	3089*/55-61-69	3161*/58-64-70	3235*/60-66-72
24	3532	2889*/47-55-64	3098*/55-62-69	3170*/58-64-71	3245*/61-66-72
22	3533	2898*/47-55-64	3107*/56-62-69	3180*/58-64-71	3255*/61-66-73
20	3534	2906*/48-55-64	3116*/56-62-69	3190*/59-64-71	3265*/61-67-73
18	3534	2915*/48-56-64	3126*/56-62-69	3199*/59-65-71	3275*/62-67-73
16	3535	2923*/48-56-64	3135*/56-63-70	3209*/59-65-71	3286*/62-67-73
14	3536	2932*/49-56-65	3145*/57-63-70	3219*/60-65-72	3296*/62-68-74
12	3537	2941*/49-57-65	3155*/57-63-70	3229*/60-66-72	3307*/63-68-74
10	3538	2949*/49-57-65	3164*/57-64-70	3239*/60-66-72	3318*/63-68-74
8	3539	2958*/49-57-65	3174*/58-64-71	3250*/61-66-72	3329*/63-68-74
6	3539	2967*/50-57-66	3184*/58-64-71	3260*/61-67-73	3340*/64-69-74
4	3540	2976*/50-58-66	3194*/58-64-71	3270*/61-67-73	3351*/64-69-75
2	3540	2985*/50-58-66	3204*/59-65-71	3281*/62-67-73	3363*/64-69-75
0	3540	2994*/51-58-66	3214*/59-65-72	3292*/62-67-73	3374*/65-70-75
-2	3541	3003*/51-59-66	3224*/59-65-72	3303*/62-68-74	3385*/65-70-75
-4	3541	3012*/51-59-67	3234*/60-66-72	3314*/63-68-74	3397*/65-70-76
-6	3541	3022*/52-59-67	3245*/60-66-72	3325*/63-68-74	3408*/66-71-76
-8	3541	3031*/52-59-67	3255*/60-66-73	3336*/63-69-74	3428*/66-71-76
-10	3541	3041*/52-60-67	3266*/61-67-73	3348*/64-69-75	3450*/66-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2560 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22L	1	1	0	2	32	0	9	171	0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 13 FT

RUNWAY 22R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2733*/47-50-54	2843*/48-50-54	2875*/49-50-54	2875*/49-50-54
		2676**53-60-63	2742**63-71-72	2760**66-74-75	2761**69-75-76
58A	2652	2782*/49-51-56	2893*/50-51-56	2931*/50-51-56	2942*/51-51-56
		2724**53-60-63	2792**63-71-73	2811**67-75-76	2819**70-76-77
56A	2719	2836*/50-53-57	2952*/52-53-57	2990*/52-53-57	3014*/53-53-57
		2780**53-61-64	2850**63-71-73	2870**67-75-76	2885**70-78-79
54	2788	2890*/52-55-59	3012*/54-55-59	3052*/54-55-59	3088*/54-55-59
		2838**53-61-64	2911**63-72-74	2932**67-76-77	2951**70-79-80
52	2865	2945F/53-57-62	3073*/55-57-62	3115*/56-57-62	3156*/56-57-62
		2901**53-62-65	2978**64-72-74	3001**67-76-78	3022**71-80-81
50	2940	2993F/54-59-64	3132*/56-59-64	3175*/57-59-64	3219*/58-59-64
		2963**53-62-66	3043**64-73-75	3068**67-76-78	3090**71-80-82
48	3017	3039F/54-61-66	3192*/58-61-66	3236*/58-61-66	3281*/59-61-66
		3025**53-62-67	3109**64-73-76	3134**67-77-79	3158**71-80-82
46	3090	3078*/54-63-67	3249*/59-63-68	3295*/60-63-68	3343*/60-63-68
			3172**64-73-76	3199**67-77-79	3225**71-81-83
44	3162	3121*/54-64-69	3306*/60-65-70	3355*/61-65-70	3404*/62-65-70
			3234**64-74-77	3262**67-77-80	3289**71-81-83
42	3232	3165*/54-65-70	3364*/61-67-71	3418*/62-67-71	3507*/63-67-71
			3294**64-74-77	3324**67-78-81	3353**71-81-84
40	3302	3207*/55-66-71	3432*/63-69-73	3513*/63-69-73	3562*/64-69-73
			3354**64-74-78	3386**67-78-81	3419**71-82-84
38	3367	3245*/55-67-72	3501F/63-70-75	3562*/64-70-75	3612*/65-70-75
			3410**64-75-79	3459**67-78-81	3499**71-82-84
36	3440	3287*/55-68-73	3545F/64-71-76	3607*/65-71-76	3658*/65-71-76
			3490**63-75-79	3523**67-78-82	3556**71-82-85
34	3507	3323*/55-68-74	3582F/64-72-76	3643*/65-72-76	3695*/66-72-76
			3541**63-75-79	3575**67-79-82	3608**71-82-85
32	3529	3342*/55-69-75	3602F/64-72-77	3664*/65-72-77	3716*/66-72-77
			3562**64-76-80	3597**67-79-83	3630**71-83-86
30	3530	3352*/56-69-75	3612F/64-72-77	3672*/65-72-77	3724*/66-72-77
			3567**64-76-80	3602**68-80-83	3635**71-83-86
28	3531	3362*/56-69-75	3623F/64-72-77	3679*/65-72-77	3732*/66-72-77
			3572**65-77-80	3607**68-80-84	3641**72-84-87
26	3531	3371*/56-70-75	3633F/65-72-77	3687*/65-72-77	3739*/66-72-77
			3578**65-77-81	3612**69-81-84	3646**72-84-87
24	3532	3381*/57-70-75	3642*/65-72-77	3695*/65-72-77	3747*/66-72-77
			3583**65-78-81	3618**69-81-84	3651**73-85-88
22	3533	3391*/57-70-76	3650*/65-72-77	3702*/66-72-77	3755*/66-72-77
			3588**66-78-82	3623**70-82-85	3657**73-85-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3420 M LONG WITH 262 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22R	1	263	0	558	50970	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 13 FT

RUNWAY 22R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY
NEWYORK
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3534	3401*/57-70-76	3658*/65-72-77	3710*/66-72-77	3763*/66-72-77
			3594**66-79-82	3628**70-82-85	3662**74-86-89
18	3534	3412*/58-71-76	3665*/65-72-77	3718*/66-72-77	3771*/67-72-77
			3599**67-79-83	3633**71-83-86	3667**74-87-89
16	3535	3430*/58-71-76	3673*/65-72-77	3726*/66-72-77	3779*/67-72-77
			3605**67-80-83	3639**71-83-86	3672**75-87-90
14	3536	3449*/58-71-76	3681*/65-72-77	3734*/66-72-77	3787F/67-72-77
			3610**68-80-84	3644**71-84-87	3678**75-88-90
12	3537	3468*/58-71-76	3689*/65-72-77	3742*/66-72-77	3787F/67-72-77
			3616**68-81-84	3650**72-84-87	3683**76-88-91
10	3538	3486*/58-71-76	3697*/65-72-77	3750*/66-72-77	3787F/67-72-77
			3621**69-81-84	3656**72-85-88	3689**76-89-91
8	3539	3497*/58-71-76	3705*/65-72-77	3759*/66-72-77	3787F/67-72-77
			3627**69-82-85	3661**73-86-88	3694**77-89-92
6	3539	3507*/59-72-76	3713*/65-72-77	3767*/66-72-77	3787F/67-72-77
			3632**70-82-85	3667**73-86-89	3700**77-90-92
4	3540	3517*/59-72-77	3721*/66-72-77	3775*/66-72-77	3787F/67-72-77
			3638**70-83-86	3672**74-87-89	3705**78-91-93
2	3540	3528*/59-72-77	3729*/66-72-77	3783*/66-72-77	3787F/67-72-77
			3643**71-83-86	3677**74-87-90	3710**78-91-93
0	3540	3538*/60-72-77	3737*/66-73-77	3787F/66-73-77	3787F/67-73-77
			3648**71-84-87	3682**75-88-90	3715**79-92-94
-2	3541	3551*/60-73-77	3745*/66-73-77	3787F/67-73-77	3787F/67-73-77
		3545**60-73-77	3654**72-84-87	3688**76-88-91	3720**79-92-94
-4	3541	3564*/61-73-77	3753*/66-73-77	3787F/67-73-77	3787F/67-73-77
		3550**61-73-78	3659**72-85-88	3693**76-89-91	3725**80-93-95
-6	3541	3576F/61-73-77	3761*/66-73-77	3787F/67-73-77	3787F/68-73-77
		3556**61-74-78	3664**73-86-88	3698**77-90-92	3730**81-94-95
-8	3541	3587F/62-73-77	3769*/66-73-77	3787F/67-73-77	3787F/68-73-77
		3561**61-75-79	3669**73-86-89	3704**77-90-92	3735**81-94-96
-10	3541	3598F/63-73-77	3777*/66-73-77	3787F/67-73-77	3787F/68-73-77
		3567**62-75-79	3675**74-87-89	3708**78-91-93	3740**82-95-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3420 M LONG WITH 262 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
22R	1	263	0	558	50970	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 13 FT

RUNWAY 31L KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2605*/47-50-54	2657*/49-50-54	2674*/49-50-54	2691*/49-50-54
		2720**65-70-71	2761**68-75-76	2761**69-75-76	2761**69-75-76
58A	2652	2652*/49-51-56	2716*/50-51-56	2733*/50-51-56	2751*/51-51-56
		2772**65-70-72	2819**70-76-77	2819**70-76-77	2819**71-76-77
56A	2719	2728*/50-53-57	2782*/52-53-57	2800*/52-53-57	2818*/53-53-57
		2832**66-71-73	2885**71-78-79	2885**72-78-79	2885**72-78-79
54	2788	2795*/52-55-59	2851*/54-55-59	2869*/54-55-59	2887*/54-55-59
		2896**67-72-74	2958**73-81-82	2958**74-81-82	2958**74-81-82
52	2865	2868*/53-57-62	2926*/55-57-62	2944*/56-57-62	2963*/56-57-62
		2967**69-73-75	3040**76-83-84	3040**75-83-84	3040**76-83-84
50	2940	2941*/55-59-64	2998**56-59-64	3017*/57-59-64	3036*/58-59-64
		3035**70-74-76	3119**79-85-86	3119**77-85-86	3119**78-85-86
48	3017	3019*/58-61-66	3074*/58-61-66	3094*/58-61-66	3113*/59-61-66
		3105**71-75-77	3189**79-86-87	3198**79-88-89	3198**79-88-89
46	3090	3091*/60-63-68	3146*/59-63-68	3166*/60-63-68	3186*/60-63-68
		3167**70-75-78	3259**80-86-88	3279**82-90-91	3279**81-90-91
44	3162	3162*/63-65-70	3216*/60-65-70	3236*/61-65-70	3257*/62-65-70
		3221**69-74-78	3329**80-87-88	3358**84-92-93	3362**83-92-93
42	3232	3232*/67-67-71	3285*/61-67-71	3307*/62-67-71	3328*/63-67-71
		3274**68-74-77	3395**80-87-89	3434**84-92-93	3451**84-93-94
40	3302	3298B/67-69-73	3353*/63-69-73	3375*/63-69-73	3398*/64-69-73
		3327**66-74-77	3475**78-86-88	3512**83-91-92	3535**86-95-96
38	3367	3357B/66-70-75	3420*/63-70-75	3450*/64-70-75	3477*/65-70-75
		3377**65-73-77	3531**77-86-88	3568**81-90-92	3600**86-95-97
36	3440	3418B/64-71-76	3497*/64-71-76	3519*/65-71-76	3542*/65-71-76
		3435**64-73-77	3583**76-85-88	3620**80-90-92	3654**85-95-96
34	3507	3485B/63-71-76	3554*/64-72-76	3577*/65-72-76	3600*/66-72-76
		3495**62-73-77	3632**75-85-88	3672**79-90-92	3708**84-95-96
32	3529	3506B/63-72-76	3576*/64-72-77	3599*/65-72-77	3622*/66-72-77
		3514**62-73-77	3653**75-85-88	3693**79-90-92	3730**84-95-97
30	3530	3508B/63-72-76	3577*/64-72-77	3601*/65-72-77	3624*/66-72-77
		3520**63-73-78	3658**75-86-89	3698**80-91-93	3735**85-96-97
28	3531	3511B/64-72-76	3579*/64-72-77	3603*/65-72-77	3626*/66-72-77
		3525**63-74-78	3664**76-87-89	3704**81-91-93	3740**85-96-98
26	3531	3514B/64-72-76	3581*/65-72-77	3604*/65-72-77	3627*/66-72-77
		3531**64-74-79	3669**77-87-90	3709**81-92-94	3745**86-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 570 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
31L	51	961	0	55	962	0	56	972	0
	58	1145	0	80	1163	0	165	3922	0
	212	5358	0	269	5974	0	271	5982	0
	336	6450	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 31L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED JFK AT VOR D3.0 TO A MAG COURSE OF 180 DEGREES IF JFK VOR OTS, COMMENCE LEFT UPON
 CROSSING CRI VOR R-060

ELEVATION 13 FT

RUNWAY 31L KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY

NEWYORK

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3532	3516B/65-72-77	3582*/65-72-77	3606*/65-72-77	3629*/66-72-77
		3536**64-75-79	3675**77-88-90	3714**82-93-94	3750**86-98-99
22	3533	3519B/65-72-77	3584*/65-72-77	3608*/66-72-77	3631*/66-72-77
		3541**65-76-80	3680**78-88-91	3720**82-93-95	3755**87-98-00
20	3534	3521B/66-72-77	3586*/65-72-77	3609*/66-72-77	3632*/66-72-77
		3547**65-76-80	3686**78-89-91	3725**83-94-96	3760**88-99-00
18	3534	3524B/67-72-77	3587*/65-72-77	3611*/66-72-77	3634*/67-72-77
		3552**66-77-81	3691**79-89-92	3731**83-94-96	3765**88-99-01
16	3535	3526B/67-72-77	3589*/65-72-77	3612*/66-72-77	3636*/67-72-77
		3558**66-77-81	3697**79-90-92	3736**84-95-97	3771**89-00-01
14	3536	3529B/68-72-77	3591*/65-72-77	3614*/66-72-77	3637*/67-72-77
		3563**67-78-82	3703**80-91-93	3741**85-96-97	3775**90-01-02
12	3537	3532B/68-72-77	3593*/65-72-77	3616*/66-72-77	3639*/67-72-77
		3569**67-78-82	3708**81-91-93	3747**85-96-98	3780**90-01-03
10	3538	3534B/69-72-77	3594*/65-72-77	3618*/66-72-77	3641*/67-72-77
		3575**68-79-82	3714**81-92-94	3752**86-97-99	3781**90-01-03
8	3539	3537B/70-72-77	3596*/65-72-77	3619*/66-72-77	3643*/67-72-77
		3581**68-79-83	3720**82-93-94	3757**87-98-99	3782**89-01-03
6	3539	3539B/70-72-77	3597*/65-72-77	3621*/66-72-77	3644*/67-72-77
		3586**69-80-83	3725**82-93-95	3762**87-98-00	3782**89-02-03
4	3540	3541*/71-72-77	3599*/66-72-77	3622*/66-72-77	3646*/67-72-77
		3592**69-81-84	3731**83-94-96	3767**88-99-00	3783**90-02-03
2	3540	3543*/71-72-77	3600*/66-72-77	3624*/66-72-77	3647*/67-72-77
		3597**70-81-84	3736**84-95-96	3773**89-00-01	3783**90-02-03
0	3540	3543*/71-73-77	3601*/66-73-77	3625*/67-73-77	3648*/67-73-77
		3603**71-82-85	3742**84-95-97	3778**89-00-02	3784**90-02-03
-2	3541	3544*/71-73-77	3602*/66-73-77	3626*/67-73-77	3649*/67-73-77
		3608**71-82-86	3747**85-96-97	3782**90-01-02	3784**90-02-03
-4	3541	3545*/71-73-77	3603*/66-73-77	3627*/67-73-77	3650*/67-73-77
		3614**72-83-86	3752**86-97-98	3784**90-02-03	3784**90-02-03
-6	3541	3546*/71-73-77	3604*/66-73-77	3628*/67-73-77	3651*/68-73-77
		3619**72-84-87	3757**86-97-99	3784**90-02-03	3784**90-02-03
-8	3541	3546*/71-73-77	3605*/66-73-77	3629*/67-73-77	3652*/68-73-77
		3625**73-84-87	3762**87-98-99	3785**89-02-03	3785**90-02-03
-10	3541	3547*/71-73-77	3606*/66-73-77	3630*/67-73-77	3653*/68-73-77
		3630**74-85-88	3767**88-99-00	3785**89-02-03	3785**90-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 570 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4423 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
31L	51	961	0	55	962	0	56	972	0
	58	1145	0	80	1163	0	165	3922	0
	212	5358	0	269	5974	0	271	5982	0
	336	6450	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 31L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED JFK AT VOR D3.0 TO A MAG COURSE OF 180 DEGREES IF JFK VOR OTS, COMMENCE LEFT UPON
 CROSSING CRI VOR R-060

ELEVATION 13 FT RUNWAY 31R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF JOHN F. KENNEDY
NEWYORK
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2595	2436*/44-44-49	2545*/48-48-52	2581*/49-49-53	2611*/49-50-54
			2547**50-50-54	2585**51-51-55	2621**53-53-57
58A	2652	2480*/45-46-51	2593*/49-49-54	2630*/51-51-55	2661*/51-51-56
			2595**50-51-55	2633**53-53-57	2670**54-54-57
56A	2719	2530*/46-47-52	2649*/51-51-56	2687*/52-52-57	2720*/53-53-57
				2689**54-54-58	2728**55-55-59
54	2788	2580*/47-48-54	2707*/53-53-57	2746*/54-54-58	2784*/55-55-59
				2747**55-55-59	2787**57-57-61
52	2865	2635*/48-50-56	2771*/54-54-59	2811*/56-56-60	2850*/57-57-61
					2852**58-58-62
50	2940	2689*/48-51-57	2833*/56-56-61	2874*/57-57-62	2914*/59-59-63
					2916**59-59-64
48	3017	2739*/49-53-59	2894*/57-58-63	2938*/59-59-64	2980*/60-60-65
46	3090	2785*/49-54-60	2946*/57-59-64	2997*/60-60-65	3041*/62-62-66
44	3162	2830*/49-55-61	2995*/58-60-65	3049*/60-62-67	3101*/63-63-68
42	3232	2875*/49-56-63	3044*/58-61-67	3099*/61-63-68	3154*/64-65-70
40	3302	2918*/50-57-64	3090*/58-62-68	3147*/61-64-70	3204*/64-66-71
38	3367	2957*/50-58-65	3132*/58-63-69	3191*/61-65-71	3249*/64-67-72
36	3440	2998*/50-59-66	3177*/59-64-71	3237*/62-66-72	3297*/64-68-73
34	3507	3033*/50-60-67	3215*/59-65-72	3277*/62-67-73	3341*/65-69-74
32	3529	3050*/50-60-68	3233*/59-66-72	3296*/62-68-74	3361*/65-69-75
30	3530	3057*/51-60-68	3241*/59-66-72	3304*/62-68-74	3369*/65-70-75
28	3531	3064*/51-61-68	3248*/60-66-72	3312*/63-68-74	3376*/66-70-75
26	3531	3072*/51-61-68	3256*/60-66-73	3320*/63-68-74	3384*/66-70-75
24	3532	3079*/52-61-68	3264*/61-67-73	3328*/63-68-74	3392*/66-70-76
22	3533	3086*/52-61-68	3271*/61-67-73	3336*/64-69-74	3400*/67-70-76
20	3534	3093*/52-61-69	3279*/61-67-73	3344*/64-69-75	3408*/67-71-76
18	3534	3101*/53-62-69	3287*/62-67-73	3352*/65-69-75	3420*/68-71-76
16	3535	3108*/53-62-69	3295*/62-68-74	3360*/65-69-75	3433*/68-71-76
14	3536	3115*/53-62-69	3303*/62-68-74	3368*/65-70-75	3446*/68-71-76
12	3537	3123*/54-62-69	3311*/63-68-74	3376*/66-70-75	3458*/68-71-76
10	3538	3130*/54-63-70	3319*/63-68-74	3384*/66-70-75	3470*/69-71-76
8	3539	3138*/54-63-70	3327*/64-68-74	3392*/67-70-76	3482*/69-71-76
6	3539	3146*/55-63-70	3335*/64-69-74	3400*/67-70-76	3491*/70-71-76
4	3540	3153*/55-63-70	3343*/64-69-75	3408*/67-71-76	3498*/70-71-76
2	3540	3161*/56-63-70	3351*/65-69-75	3419*/68-71-76	3505*/70-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 590 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2900 M LONG WITH 148 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES:			23 M FOR TODA,			49 M FOR ASDA			OBS FROM LO-FT/M		
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET		
31R	1	151	0	5	179	0	7	206	0		
	8	209	0	12	269	0	14	299	0		
	16	328	0	20	339	0	55	649	0		
	289	6649	0	372	9492	0					

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 31R BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
COMMENCED AT JFK VOR D3.0 TO A MAG COURSE OF 180 DEGREES IF JFK VOR OTS, COMMENCE LEFT AT D5.0 CRI
VOR

ELEVATION 13 FT

RUNWAY 31R KJFK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JOHN F. KENNEDY
NEWYORK
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
0	3540	3168*/56-64-71	3359*/65-69-75	3432*/68-71-76	3512*/71-72-76
-2	3541	3175*/56-64-71	3367*/66-69-75	3444*/68-71-76	3519*/71-72-77
-4	3541	3183*/57-64-71	3375*/66-70-75	3456*/69-71-76	3526*/72-72-77
-6	3541	3190*/57-64-71	3383*/66-70-75	3467*/69-71-76	3532*/72-72-77
-8	3541	3198*/58-65-71	3391*/67-70-76	3478*/70-71-76	3537*/72-72-77
					3538**73-73-77
-10	3541	3205*/58-65-71	3398*/67-70-76	3488*/70-71-76	3541*/72-73-77
					3545**73-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 590 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2900 M LONG WITH 148 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.01 PERCENT FOR TODA AND -0.01 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
31R	1	151	0	5	179	0	7	206	0
	8	209	0	12	269	0	14	299	0
	16	328	0	20	339	0	55	649	0
	289	6649	0	372	9492	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 31R BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
COMMENCED AT JFK VOR D3.0 TO A MAG COURSE OF 180 DEGREES IF JFK VOR OTS, COMMENCE LEFT AT D5.0 CRI
VOR

ELEVATION 14 FT

RUNWAY 02

LEBL

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

EL PRAT BARCELONA

BARCELONA

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2304*/36-40-46	2458*/45-45-50	2499*/47-47-51	2541*/48-48-52
58A	2652	2341*/37-41-47	2500*/46-46-51	2544*/48-48-53	2587*/49-49-54
56A	2719	2384*/38-42-48	2547*/47-48-53	2597*/49-49-54	2640*/51-51-55
54	2788	2429*/38-43-50	2596*/47-49-54	2650*/51-51-56	2695*/52-52-57
52	2865	2478*/39-44-51	2649*/48-50-56	2705*/51-52-57	2756*/54-54-59
50	2940	2526*/40-46-53	2701*/49-52-57	2759*/52-54-59	2814*/55-55-60
48	3017	2574*/41-47-54	2753*/50-53-59	2812*/53-55-61	2868*/56-57-62
46	3090	2618*/42-48-56	2801*/51-54-60	2859*/53-56-62	2917*/56-58-63
44	3162	2662*/42-49-57	2845*/51-55-62	2905*/54-57-63	2964*/57-59-65
42	3232	2707*/43-50-58	2889*/52-56-63	2950*/54-58-64	3011*/57-60-66
40	3301	2749F/44-51-59	2931*/52-57-64	2992*/55-59-66	3055*/57-61-67
38	3367	2782F/44-52-60	2968*/52-58-65	3031*/55-60-67	3095*/58-62-68
36	3440	2817F/44-53-62	3009*/53-59-66	3073*/55-61-68	3137*/58-63-70
34	3507	2847F/45-54-62	3044*/53-60-67	3108*/56-62-69	3174*/58-64-71
32	3529	2863F/45-54-63	3061*/53-60-68	3126*/56-62-69	3192*/59-64-71
30	3530	2871F/45-54-63	3068*/53-61-68	3134*/56-63-70	3200*/59-65-71
28	3531	2879F/45-55-63	3076*/54-61-68	3142*/57-63-70	3208*/59-65-71
26	3531	2887F/46-55-63	3084*/54-61-68	3150*/57-63-70	3217*/60-65-72
24	3532	2895F/46-55-64	3092*/54-61-69	3158*/57-63-70	3225*/60-65-72
22	3533	2903F/46-55-64	3100*/55-62-69	3166*/58-64-70	3234*/61-66-72
20	3534	2912F/47-56-64	3108*/55-62-69	3175*/58-64-71	3242*/61-66-72
18	3534	2920F/47-56-64	3116*/55-62-69	3183*/58-64-71	3250*/61-66-72
16	3535	2929F/47-56-65	3124*/56-62-69	3191*/59-64-71	3259*/62-66-73
14	3536	2937F/47-56-65	3133*/56-63-70	3200*/59-65-71	3268*/62-67-73
12	3537	2945*/48-57-65	3141*/56-63-70	3208*/59-65-71	3276*/62-67-73
10	3538	2953*/48-57-65	3150*/57-63-70	3217*/60-65-72	3286*/63-67-73
8	3539	2961*/48-57-65	3158*/57-63-70	3226*/60-65-72	3295*/63-68-74
6	3539	2969*/49-57-66	3166*/58-64-70	3234*/61-66-72	3304*/63-68-74
4	3540	2976*/49-58-66	3175*/58-64-71	3243*/61-66-72	3313*/64-68-74
2	3540	2984*/49-58-66	3183*/58-64-71	3251*/61-66-73	3322*/64-68-74
0	3540	2992*/50-58-66	3192*/59-64-71	3260*/62-66-73	3330*/65-68-74
-2	3540	3000*/50-58-66	3200*/59-65-71	3268*/62-67-73	3339*/65-69-74
-4	3541	3008*/50-59-67	3208*/59-65-71	3277*/62-67-73	3348*/65-69-75
-6	3541	3016*/51-59-67	3217*/60-65-72	3286*/63-67-73	3357*/66-69-75
-8	3541	3024*/51-59-67	3225*/60-65-72	3295*/63-68-74	3366*/66-69-75
-10	3541	3032*/52-59-67	3234*/61-66-72	3304*/64-68-74	3375*/67-70-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2528 M LONG WITH 72 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
02	6	131	0	14	218	0	19	322	0
	37	420	0	69	1113	0	78	1201	0
	79	1251	0	301	7808	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RUNWAY 02 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT-TURN, COMMENCED AT D1.1 BCN DME (D1.0 BCA ILS/DME) TO A MAG COURSE 160 DEGREES

INTENTIONALLY LEFT BLANK

ELEVATION 14 FT

RUNWAY 07L LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2595*/48-50-54	2674*/50-50-54	2694*/50-50-54	2714*/50-50-54
		2605**52-52-56	2703**60-64-66	2729**64-68-70	2752**68-73-74
58A	2652	2652*/51-51-56	2730*/51-51-56	2751*/51-51-56	2771*/51-51-56
		2655**53-53-57	2754**61-65-67	2781**65-69-71	2804**69-73-75
56A	2719	2711*/53-53-57	2796*/53-53-57	2816*/53-53-57	2837*/53-53-57
			2813**62-65-68	2841**66-70-72	2864**69-74-75
54	2788	2769*/54-55-59	2863*/55-55-59	2885*/55-55-59	2906*/55-55-59
			2873**63-66-69	2901**66-70-72	2926**70-74-76
52	2865	2826*/54-56-61	2920*/55-57-62	2960*/57-57-62	2981*/57-57-62
			2938**63-66-69	2967**66-71-73	2994**70-75-77
50	2940	2881*/54-57-62	2986*/57-59-64	3031*/59-59-64	3054*/59-59-64
			3000**63-67-70	3031**67-71-74	3059**70-75-77
48	3017	2935*/54-59-64	3055*/59-61-66	3085*/59-61-66	3129*/61-61-66
			3064**63-67-71	3096**67-71-74	3125**70-75-78
46	3090	2985*/54-60-65	3121*/60-63-68	3152*/61-63-68	3200*/63-63-68
			3125**63-67-71	3158**67-72-75	3189**70-76-78
44	3162	3034*/55-61-66	3198*/64-65-70	3217*/62-65-70	3267*/65-65-70
			3184**63-68-72	3219**67-72-75	3251**70-76-79
42	3232	3081*/55-62-68	3248*/64-67-71	3282*/64-67-71	3315*/64-67-71
			3242**64-68-72	3277**67-72-76	3313**70-76-79
40	3301	3125*/55-63-69	3298*/64-69-73	3364*/68-69-73	3382*/66-69-73
				3338**67-73-76	3374**70-77-80
38	3367	3164*/55-64-70	3346*/64-70-74	3411*/68-70-75	3465*/67-70-75
				3392**67-73-77	3440**70-77-80
36	3440	3205*/56-65-71	3396*/64-71-75	3491*/67-71-76	3530*/68-71-76
				3467**67-73-77	3511**70-77-81
34	3507	3241*/56-66-72	3459*/64-71-76	3532*/67-72-76	3579*/69-72-76
				3522**67-73-78	3562**70-77-81
32	3529	3258*/56-66-73	3489*/64-71-76	3552*/67-72-77	3620*/72-72-77
				3543**67-74-78	3583**71-78-82
30	3530	3267*/56-67-73	3496*/64-71-76	3561*/68-72-77	3606*/69-72-77
				3548**67-74-78	3588**71-78-82
28	3531	3276*/57-67-73	3504*/65-71-76	3569*/68-72-77	3610*/69-72-77
				3554**68-75-79	3594**71-79-82
26	3531	3285*/57-67-73	3511*/65-72-76	3578*/69-72-77	3614*/69-72-77
				3560**68-75-79	3599**72-79-83
24	3532	3294*/57-68-73	3519*/65-72-77	3586*/70-72-77	3619*/69-72-77
				3565**69-76-80	3605**72-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07L	15	261	0	16	327	0	18	376	0
	23	391	0	36	715	0	44	756	0
	116	2476	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 14 FT

RUNWAY 07L LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3533	3303*/58-68-74	3526*/66-72-77	3594*/70-72-77	3623*/69-72-77
				3570**69-76-80	3610**73-80-84
20	3534	3312*/58-68-74	3534*/66-72-77	3602*/71-72-77	3628*/69-72-77
				3576**70-77-81	3616**73-81-84
18	3534	3321*/58-68-74	3543*/67-72-77	3611*/71-72-77	3652*/72-72-77
			3539**67-73-77	3581**70-77-81	3621**74-81-85
16	3535	3330*/59-68-74	3551*/67-72-77	3619*/72-72-77	3657*/72-72-77
			3545**67-73-78	3587**71-78-81	3627**74-82-85
14	3536	3339*/59-69-74	3560*/68-72-77	3606*/69-72-77	3661*/72-72-77
			3551**68-74-78	3593**71-78-82	3632**75-83-86
12	3537	3348*/59-69-75	3569*/68-72-77	3610*/69-72-77	3665*/72-72-77
			3557**68-74-79	3598**72-79-82	3638**75-83-86
10	3538	3357*/60-69-75	3577*/69-72-77	3615*/69-72-77	3668*/72-72-77
			3563**68-75-79	3604**72-79-83	3644**76-84-87
8	3539	3366*/60-69-75	3586*/70-72-77	3619*/69-72-77	3671*/72-72-77
			3569**69-75-80	3610**73-80-83	3650**76-84-87
6	3539	3375*/60-70-75	3594*/70-72-77	3644*/72-72-77	3674*/72-72-77
			3574**69-76-80	3616**73-80-84	3655**77-85-88
4	3540	3383*/61-70-75	3602*/71-72-77	3648*/72-72-77	3676*/72-72-77
			3580**70-77-81	3621**74-81-84	3661**77-85-88
2	3540	3391*/61-70-76	3610*/71-72-77	3652*/72-72-77	3678*/72-72-77
			3585**70-77-81	3627**74-82-85	3666**78-86-89
0	3540	3399*/61-70-76	3618*/72-73-77	3654*/73-73-77	3681*/73-73-77
			3591**71-78-81	3632**75-82-85	3672**78-87-89
-2	3540	3407*/62-71-76	3605*/69-73-77	3656*/73-73-77	3683*/73-73-77
			3596**71-78-82	3638**75-83-86	3677**79-87-90
-4	3541	3417*/62-71-76	3609*/69-73-77	3658*/73-73-77	3685*/73-73-77
			3602**72-79-82	3643**76-83-86	3682**79-88-90
-6	3541	3430*/63-71-76	3632*/73-73-77	3660*/73-73-77	3687*/73-73-77
			3607**72-79-83	3649**76-84-87	3688**80-88-91
-8	3541	3442*/63-71-76	3635*/73-73-77	3662*/73-73-77	3689*/73-73-77
			3613**73-80-83	3654**77-84-87	3693**81-89-91
-10	3541	3454*/63-71-76	3637*/73-73-77	3664*/73-73-77	3691*/73-73-77
			3619**73-81-84	3660**77-85-88	3698**81-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07L	15	261	0	16	327	0	18	376	0
	23	391	0	36	715	0	44	756	0
	116	2476	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 14 FT

RUNWAY 07R LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
 BARCELONA
 DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2374*/39-42-48	2526*/48-48-52	2550*/48-48-53	2574*/49-49-53
			2530**48-48-53	2569**51-52-55	2605**54-55-58
58A	2652	2412*/40-43-49	2576*/48-49-53	2604*/50-50-54	2629*/51-51-55
				2618**52-52-56	2654**55-55-59
56A	2719	2456*/40-44-50	2624*/49-50-55	2666*/52-52-56	2691*/52-52-57
				2672**52-53-57	2711**56-56-60
54	2788	2501*/41-46-52	2673*/50-51-56	2729*/53-53-58	2756*/54-54-59
					2771**56-57-61
52	2865	2551*/42-47-53	2727*/51-53-58	2785*/54-55-59	2827*/56-56-61
					2834**57-57-62
50	2940	2599*/43-48-55	2780*/52-54-60	2837*/55-56-61	2893*/57-58-62
48	3017	2648*/44-49-56	2829*/52-55-61	2888*/55-57-62	2946*/58-59-64
46	3090	2693*/45-51-58	2874*/53-57-62	2934*/55-58-64	2994*/58-60-65
44	3162	2737*/45-52-59	2918*/53-58-64	2979*/56-60-65	3041*/59-61-67
42	3232	2778*/46-53-60	2961*/54-59-65	3024*/56-61-66	3087*/59-63-68
40	3301	2815F/46-54-61	3003*/54-60-66	3067*/57-62-68	3131*/59-64-69
38	3367	2849F/46-54-62	3041*/54-61-67	3106*/57-63-69	3171*/60-65-70
36	3440	2885F/46-55-63	3081*/55-61-68	3147*/57-63-70	3214*/60-66-71
34	3507	2915F/47-56-64	3116*/55-62-69	3183*/58-64-71	3251*/60-66-72
32	3529	2931F/47-56-65	3134*/55-63-70	3201*/58-65-71	3269*/61-67-73
30	3530	2939F/47-57-65	3142*/55-63-70	3209*/58-65-71	3278*/61-67-73
28	3531	2948F/47-57-65	3150*/56-63-70	3218*/59-65-72	3287*/61-67-73
26	3531	2956F/48-57-65	3159*/56-63-70	3227*/59-66-72	3297*/62-68-74
24	3532	2965F/48-57-65	3167*/56-64-70	3235*/59-66-72	3306*/62-68-74
22	3533	2973F/48-58-66	3176*/57-64-71	3244*/60-66-72	3315*/62-68-74
20	3534	2982F/49-58-66	3184*/57-64-71	3253*/60-66-73	3324*/63-68-74
18	3534	2990F/49-58-66	3193*/57-64-71	3262*/60-67-73	3334*/63-69-74
16	3535	2999F/49-58-66	3202*/58-65-71	3271*/61-67-73	3343*/63-69-75
14	3536	3008F/50-59-67	3210*/58-65-72	3280*/61-67-73	3353*/64-69-75
12	3537	3017F/50-59-67	3219*/58-65-72	3289*/61-67-73	3362*/64-69-75
10	3538	3026*/50-59-67	3228*/59-66-72	3299*/62-68-74	3372*/65-70-75
8	3539	3034*/50-60-67	3237*/59-66-72	3308*/62-68-74	3382*/65-70-75
6	3539	3042*/51-60-67	3246*/59-66-72	3318*/62-68-74	3391*/65-70-76
4	3540	3051*/51-60-68	3255*/60-66-73	3327*/63-68-74	3401*/66-70-76
2	3540	3059*/51-60-68	3264*/60-67-73	3337*/63-69-74	3411*/66-71-76
0	3540	3067*/52-61-68	3273*/61-67-73	3346*/64-69-75	3427*/66-71-76
-2	3540	3076*/52-61-68	3282*/61-67-73	3356*/64-69-75	3444*/67-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2660 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07R	2	96	0	8	193	0	12	248	0
	25	321	0	28	537	0	38	646	0
	235	3689	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 14 FT

RUNWAY 07R LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA

BARCELONA

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-4	3541	3084*/52-61-68	3292*/61-67-73	3365*/64-69-75	3460*/67-71-76
-6	3541	3092*/53-61-69	3301*/62-68-74	3375*/65-70-75	3476*/67-71-76
-8	3541	3101*/53-62-69	3311*/62-68-74	3385*/65-70-75	3488*/67-71-76
-10	3541	3109*/54-62-69	3320*/62-68-74	3394*/65-70-76	3491*/68-71-76
					3494**68-72-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2660 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07R	2	96	0	8	193	0	12	248	0
	25	321	0	28	537	0	38	646	0
	235	3689	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 14 FT RUNWAY 20 LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA

BARCELONA

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

60A	2595	2334F/36-41-47	2501*/45-47-51	2551*/48-48-53	2595*/50-50-54
					2597**51-51-55
58A	2652	2369F/36-42-48	2542*/45-48-53	2594*/48-50-54	2643*/51-51-55
56A	2719	2409F/37-43-49	2590*/46-49-54	2644*/49-51-55	2696*/52-53-57
54	2788	2450F/38-44-50	2639*/47-50-55	2695*/50-52-57	2749*/53-54-58
52	2865	2496F/39-45-52	2692F/48-52-57	2750*/51-54-59	2806*/54-55-60
50	2940	2541F/40-46-53	2740F/49-53-58	2804*/52-55-60	2859*/54-57-62
48	3017	2585F/41-47-55	2787F/50-54-60	2853F/52-56-62	2912*/55-58-63
46	3090	2627F/41-48-56	2829F/50-55-61	2895F/53-57-63	2961*/55-59-64
44	3162	2668F/42-49-57	2869F/51-56-62	2936F/53-58-64	3005F/56-60-66
42	3232	2710F/43-50-58	2909F/51-57-63	2977F/54-59-65	3047F/56-61-67
40	3301	2750F/44-51-60	2948F/52-58-65	3016F/54-60-66	3087F/57-62-68
38	3367	2784F/44-52-61	2983F/52-59-66	3052F/55-61-67	3123F/57-63-69
36	3440	2819F/44-53-62	3020F/52-60-67	3090F/55-62-68	3162F/58-64-70
34	3507	2849F/45-54-62	3052F/53-60-68	3123F/55-62-69	3196F/58-65-71
32	3529	2864F/45-54-63	3069F/53-61-68	3140F/56-63-70	3214F/58-65-72
30	3530	2872F/45-54-63	3078F/53-61-68	3150F/56-63-70	3223F/59-65-72
28	3531	2880F/45-55-63	3087F/54-61-69	3159F/56-63-70	3233F/59-66-72
26	3531	2888F/46-55-64	3096F/54-62-69	3168F/57-64-70	3243F/59-66-72
24	3532	2897F/46-55-64	3105F/54-62-69	3178F/57-64-71	3253F/60-66-73
22	3533	2905F/46-55-64	3115F/54-62-69	3188F/57-64-71	3263F/60-67-73
20	3534	2913F/47-56-64	3124F/55-62-69	3197F/58-65-71	3273F/60-67-73
18	3534	2922F/47-56-64	3133F/55-63-70	3207F/58-65-71	3283F/61-67-73
16	3535	2930F/47-56-65	3143F/55-63-70	3217F/58-65-72	3294F/61-68-73
14	3536	2939F/47-57-65	3153F/56-63-70	3227F/58-66-72	3305F/61-68-74
12	3537	2948F/48-57-65	3162F/56-64-70	3237F/59-66-72	3316F/62-68-74
10	3538	2957F/48-57-65	3172F/56-64-71	3248F/59-66-72	3327F/62-68-74
8	3539	2966F/48-57-66	3182F/57-64-71	3258F/59-66-73	3338F/62-69-74
6	3539	2975F/49-58-66	3192F/57-64-71	3268F/60-67-73	3349F/63-69-75
4	3540	2984F/49-58-66	3202F/57-65-71	3279F/60-67-73	3361F/63-69-75
2	3540	2993F/49-58-66	3212F/58-65-72	3290F/60-67-73	3372F/63-70-75
0	3540	3002F/50-59-66	3222F/58-65-72	3301F/61-68-74	3382*/64-70-75
-2	3540	3011F/50-59-67	3232F/58-66-72	3312F/61-68-74	3391*/64-70-76
-4	3541	3020F/50-59-67	3243F/59-66-72	3323F/61-68-74	3400*/64-70-76
-6	3541	3029F/50-59-67	3253F/59-66-73	3334F/62-69-74	3409*/65-71-76
-8	3541	3039F/51-60-67	3264F/59-67-73	3346F/62-69-75	3423*/65-71-76
-10	3541	3048F/51-60-68	3274F/60-67-73	3356*/63-69-75	3438*/65-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2528 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

20	23	555	0	37	585	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 14 FT RUNWAY 25L LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
BARCELONA
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2397F/38-43-48	2538*/48-48-52	2574*/49-49-53	2605*/49-50-54
				2578**51-51-55	2615**52-52-56
58A	2652	2432F/39-44-49	2583*/48-49-54	2623*/50-50-55	2656*/51-51-56
				2626**51-51-56	2664**54-54-58
56A	2719	2473F/40-45-51	2635*/49-51-55	2680*/52-52-56	2717*/53-53-57
					2721**55-55-59
54	2788	2516F/41-46-52	2689*/50-52-57	2737*/53-54-58	2777*/55-55-59
					2780**56-56-60
52	2865	2563F/42-47-54	2747*/51-54-58	2797*/54-55-60	2843*/57-57-61
50	2940	2609F/43-49-55	2803*/52-55-60	2853*/54-57-61	2902*/57-58-63
48	3017	2655F/44-50-56	2852F/52-56-62	2908*/55-58-63	2960*/57-60-64
46	3090	2698F/44-51-58	2894F/52-57-63	2960*/55-59-64	3013*/58-61-66
44	3162	2740F/45-52-59	2934F/53-58-64	3001F/55-60-66	3064*/58-62-67
42	3232	2779F/46-53-60	2975F/53-59-65	3043F/56-61-67	3113F/58-63-69
40	3301	2815F/46-54-61	3014F/54-60-66	3083F/56-62-68	3154F/59-64-70
38	3367	2849F/46-54-62	3050F/54-61-67	3120F/57-63-69	3191F/59-65-71
36	3440	2885F/46-55-63	3088F/54-62-68	3159F/57-64-70	3231F/60-66-72
34	3507	2915F/47-56-64	3120F/55-62-69	3192F/57-65-71	3266F/60-67-73
32	3529	2931F/47-56-65	3138F/55-63-70	3210F/58-65-71	3284F/60-67-73
30	3530	2939F/47-57-65	3147F/55-63-70	3219F/58-65-72	3294F/61-68-73
28	3531	2948F/47-57-65	3156F/56-63-70	3229F/58-66-72	3305F/61-68-74
26	3531	2956F/48-57-65	3165F/56-64-70	3238F/59-66-72	3315F/61-68-74
24	3532	2965F/48-57-65	3175F/56-64-71	3248F/59-66-72	3325F/62-68-74
22	3533	2973F/48-58-66	3184F/57-64-71	3258F/59-66-73	3336F/62-69-74
20	3534	2982F/49-58-66	3194F/57-65-71	3268F/60-67-73	3347F/62-69-75
18	3534	2990F/49-58-66	3203F/57-65-71	3278F/60-67-73	3358F/63-69-75
16	3535	2999F/49-58-66	3213F/57-65-72	3289F/60-67-73	3368F/63-70-75
14	3536	3008F/50-59-67	3223F/58-65-72	3300F/61-68-74	3379F/63-70-75
12	3537	3017F/50-59-67	3233F/58-66-72	3310F/61-68-74	3391F/64-70-76
10	3538	3026F/50-59-67	3243F/58-66-72	3321F/61-68-74	3402F/64-70-76
8	3539	3035F/50-60-67	3253F/59-66-73	3332F/62-69-74	3410*/64-71-76
6	3539	3045F/51-60-67	3264F/59-67-73	3343F/62-69-75	3423*/65-71-76
4	3540	3054F/51-60-68	3274F/59-67-73	3354F/62-69-75	3436*/65-71-76
2	3540	3063F/51-60-68	3285F/60-67-73	3365F/63-69-75	3448*/65-71-76
0	3540	3072F/52-61-68	3295F/60-68-74	3376F/63-70-75	3460*/66-71-76
-2	3540	3082F/52-61-68	3306F/60-68-74	3385*/63-70-75	3472*/66-71-76
-4	3541	3091F/52-61-69	3317F/61-68-74	3392*/64-70-76	3483*/66-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2660 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25L	8	194	0	13	259	0	17	356	0
	26	557	0	35	678	0	36	728	0
	38	742	0	46	849	0	59	935	0

ENG-OUT PROCEDURE:
NONE

ELEVATION 14 FT

RUNWAY 25L LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA

BARCELONA

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-6 3541 3100F/53-62-69 3328F/61-68-74 3400*/64-70-76 3491*/67-71-76

-8 3541 3110F/53-62-69 3339F/61-69-74 3408*/65-71-76 3499*/67-71-76

-10 3541 3120F/53-62-69 3350F/62-69-75 3419*/65-71-76 3506*/68-72-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2660 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25L	8	194	0	13	259	0	17	356	0
	26	557	0	35	678	0	36	728	0
	38	742	0	46	849	0	59	935	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 14 FT RUNWAY 25R LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA
BARCELONA
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2595	2560*/49-49-53	2643*/48-50-54	2671*/49-50-54	2698*/49-50-54
		2561**50-50-54	2666**56-59-62	2698**60-63-65	2726**64-68-69
58A	2652	2609*/50-50-54	2695*/50-51-56	2723*/50-51-56	2751*/51-51-56
			2716**57-59-62	2749**61-64-66	2777**65-68-70
56A	2719	2666*/52-52-56	2755*/52-53-57	2785*/52-53-57	2813*/53-53-57
			2775**58-60-63	2808**62-65-67	2837**65-69-71
54	2788	2724*/53-53-58	2818*/53-55-59	2848*/54-55-59	2878*/54-55-59
			2836**59-61-64	2869**63-66-68	2899**66-70-72
52	2865	2789*/55-55-60	2883*/55-57-62	2916*/56-57-62	2947*/56-57-62
			2903**60-62-65	2937**64-66-69	2969**68-71-73
50	2940	2849*/55-56-61	2947*/56-59-64	2981*/57-59-64	3013*/58-59-64
			2968**63-63-66	3004**65-67-70	3037**69-72-74
48	3017	2903*/55-58-63	3017*/58-61-66	3047*/58-61-66	3080*/59-61-66
			3035**63-63-67	3071**66-68-71	3105**70-73-75
46	3090	2954*/55-59-64	3090*/62-63-68	3109*/60-63-68	3143*/60-63-68
			3098**64-64-68	3136**67-69-72	3171**71-73-76
44	3162	3003*/55-60-66	3158*/64-65-70	3169*/61-65-70	3205*/62-65-70
				3198**67-69-73	3233**71-74-77
42	3232	3051*/56-61-67	3211*/64-66-71	3232*/63-67-71	3266*/63-67-71
				3256**68-70-74	3293**71-74-77
40	3301	3098*/56-63-68	3262*/65-68-72	3301*/65-69-73	3327*/64-69-73
				3314**68-70-74	3353**71-74-78
38	3367	3139*/56-64-69	3310*/65-69-74	3367*/68-70-75	3382*/65-70-75
					3409**71-75-78
36	3440	3184*/56-65-71	3360*/65-70-75	3426*/68-71-76	3457*/65-71-76
					3489**71-75-79
34	3507	3222*/56-66-72	3405*/65-71-76	3493*/67-71-76	3513*/65-72-76
					3539**71-75-79
32	3529	3240*/57-66-72	3434*/65-71-76	3513*/68-72-76	3534*/66-72-77
					3560**71-75-79
30	3530	3248*/57-66-72	3446*/65-71-76	3520*/68-72-77	3539*/66-72-77
					3566**72-76-80
28	3531	3255*/57-66-73	3458*/66-71-76	3527*/69-72-77	3544*/66-72-77
					3571**72-76-80
26	3531	3262*/58-67-73	3470*/66-71-76	3531*/69-72-77	3549*/66-72-77
				3534**69-72-77	3577**72-77-81
24	3532	3270*/58-67-73	3481*/66-71-76	3532*/68-72-77	3554*/66-72-77
				3539**69-73-77	3582**73-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	12	283	0	13	296	0	31	531	0
	33	557	0	36	630	0	40	682	0
	53	717	0	69	1157	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 14 FT RUNWAY 25R LEBL

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF EL PRAT BARCELONA

BARCELONA

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3533	3277*/58-67-73	3490*/67-71-76	3533*/68-72-77	3559*/66-72-77
				3545**70-74-78	3588**73-78-82
20	3534	3285*/59-67-73	3497*/67-71-76	3534*/67-72-77	3564*/66-72-77
				3551**70-74-78	3593**74-78-82
18	3534	3292*/59-67-73	3505*/67-71-76	3534*/67-72-77	3569*/66-72-77
				3557**71-75-79	3599**74-79-83
16	3535	3300*/59-68-74	3512*/68-72-76	3535*/66-72-77	3574*/67-72-77
				3563**71-75-79	3605**75-80-83
14	3536	3308*/60-68-74	3519*/68-72-77	3537*/66-72-77	3579*/67-72-77
				3568**72-76-80	3611**75-80-84
12	3537	3316*/60-68-74	3527*/69-72-77	3543*/66-72-77	3584*/67-72-77
				3574**72-76-80	3616**76-81-84
10	3538	3323*/60-68-74	3534*/69-72-77	3548*/66-72-77	3589*/67-72-77
				3580**73-77-81	3622**76-81-85
8	3539	3331*/61-69-74	3539*/69-72-77	3553*/66-72-77	3594*/67-72-77
			3541**70-73-77	3586**73-77-81	3628**77-82-85
6	3539	3339*/61-69-74	3539*/69-72-77	3558*/66-72-77	3599*/67-72-77
			3546**70-73-78	3591**74-78-82	3634**77-82-86
4	3540	3347*/62-69-75	3540*/68-72-77	3562*/66-72-77	3603*/67-72-77
			3552**71-74-78	3597**74-78-82	3639**78-83-86
2	3540	3354*/62-69-75	3540*/68-72-77	3567*/66-72-77	3608*/67-72-77
			3558**71-74-79	3603**75-79-83	3645**78-84-87
0	3540	3362*/62-69-75	3540*/67-73-77	3572*/66-73-77	3613*/67-73-77
			3564**72-75-79	3609**75-80-83	3651**79-84-87
-2	3540	3370*/63-70-75	3540*/67-73-77	3576*/67-73-77	3617*/67-73-77
			3570**72-75-80	3614**76-80-84	3656**79-85-88
-4	3541	3377*/63-70-75	3541*/66-73-77	3581*/67-73-77	3622*/67-73-77
			3575**73-76-80	3620**76-81-84	3662**80-85-88
-6	3541	3385*/64-70-75	3544*/66-73-77	3585*/67-73-77	3626*/68-73-77
			3581**73-77-81	3625**77-81-85	3667**80-86-89
-8	3541	3392*/64-70-76	3548*/66-73-77	3590*/67-73-77	3631*/68-73-77
			3587**74-77-81	3631**77-82-85	3672**81-87-89
-10	3541	3400*/65-70-76	3553*/66-73-77	3594*/67-73-77	3635*/68-73-77
			3592**74-78-82	3636**78-83-86	3678**82-87-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3352 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES:	23 M	FOR TODA,	49 M	FOR ASDA	OBS FROM LO-FT/M				
RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	12	283	0	13	296	0	31	531	0
	33	557	0	36	630	0	40	682	0
	53	717	0	69	1157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08L LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2712*/48-49-53	2749*/48-49-53	2761*/48-49-53	2773*/48-49-53
		2721**65-73-74	2723**67-73-74	2723**68-73-74	2723**68-73-74
58A	2617	2617*/49-50-54	2813*/50-50-54	2825*/50-50-54	2837*/50-50-54
		2770**65-73-74	2780**69-75-76	2780**69-75-76	2780**70-75-76
56A	2682	2682*/51-52-56	2882*/51-52-56	2895*/51-52-56	2907*/51-52-56
		2828**65-74-75	2845**71-77-78	2845**71-77-78	2845**71-77-78
54A	2748	2911*/53-54-58	2748*/53-54-58	2962*/53-54-58	2975*/53-54-58
		2886**65-74-75	2913**73-79-80	2913**73-79-80	2913**73-79-80
52	2821	2985*/55-56-60	3023*/55-56-60	3036*/55-56-60	3049*/55-56-60
		2952**65-74-76	2991**75-82-83	2991**75-82-83	2991**75-82-83
50	2894	3060*/56-58-62	3100*/57-58-62	3113*/57-58-62	3126*/57-58-62
		3017**65-74-76	3069**75-84-85	3069**78-84-85	3069**78-84-85
48	2973	3142*/58-60-65	3183*/59-60-65	3196*/59-60-65	3210*/59-60-65
		3083**65-75-77	3141**75-85-86	3150**79-86-87	3150**80-86-87
46	3046	3219*/60-62-67	3261*/61-62-67	3275*/61-62-67	3289*/61-62-67
		3147**65-75-77	3210**75-85-86	3229**79-89-90	3229**82-89-90
44	3117	3294*/62-64-68	3338*/63-64-68	3353*/63-64-68	3367*/63-64-68
		3208**64-75-78	3277**75-85-87	3304**79-90-91	3309**83-91-92
42	3187	3338B/64-66-70	3415*/64-66-70	3434*/64-66-70	3451*/65-66-70
		3268**64-76-79	3344**75-86-88	3371**79-90-91	3385**82-93-94
40	3254	3295B/65-68-72	3498*/66-68-72	3512*/66-68-72	3527*/66-68-72
		3328**64-76-79	3408**75-86-88	3451**78-90-92	3483**82-93-95
38	3319	3333B/65-69-74	3567*/67-69-74	3581*/68-69-74	3596*/68-69-74
		3380**63-76-79	3498**74-86-88	3525**78-90-92	3549**82-94-95
36	3386	3400B/63-71-75	3635*/69-71-75	3650*/69-71-75	3665*/69-71-75
		3442**62-75-79	3556**74-87-89	3584**78-91-92	3609**82-94-96
34	3454	3469B/61-71-76	3696*/69-71-76	3711*/70-71-76	3726*/70-71-76
		3500**60-75-79	3606**74-87-89	3637**78-91-93	3664**82-95-96
32	3507	3509B/61-72-76	3747*/70-72-76	3762*/70-72-76	3778*/70-72-76
		3539**60-75-79	3647**73-87-89	3681**78-91-93	3711**82-95-97
30	3508	3523B/61-72-76	3747*/70-72-76	3763*/70-72-76	3779*/70-72-76
		3544**60-75-79	3652**74-87-90	3686**78-92-93	3716**83-96-97
28	3508	3523B/61-72-76	3748*/70-72-76	3764*/70-72-76	3779*/70-72-76
		3549**61-76-80	3657**74-88-90	3691**79-92-94	3720**83-96-98
26	3509	3524B/62-72-76	3749*/70-72-76	3764*/70-72-76	3780*/70-72-76
		3555**61-76-80	3663**75-89-91	3696**79-93-95	3724**84-97-98
24	3509	3524B/63-72-76	3749*/70-72-76	3765*/70-72-76	3781*/70-72-76
		3560**62-77-81	3668**75-89-91	3701**80-93-95	3729**84-97-99
22	3510	3525B/63-72-76	3750*/70-72-76	3766*/70-72-76	3781*/70-72-76
		3565**62-77-81	3673**76-90-92	3706**81-94-96	3733**85-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 660 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

08L 404 15759 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08L LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3510	3525B/64-72-76	3751*/70-72-76	3766*/70-72-76	3782*/70-72-76
		3571**63-78-82	3679**76-90-92	3712**81-95-96	3738**85-98-00
18	3511	3526B/65-72-76	3751*/70-72-76	3767*/70-72-76	3783*/71-72-76
		3576**63-79-82	3684**77-91-93	3716**82-95-97	3743**86-99-00
16	3511	3526B/65-72-76	3752*/70-72-76	3768*/70-72-76	3783*/71-72-76
		3582**64-79-83	3689**78-91-93	3721**82-96-97	3747**86-00-01
14	3512	3527B/66-72-76	3752*/70-72-76	3768*/70-72-76	3784*/71-72-76
		3587**64-80-83	3694**78-92-94	3725**83-96-98	3751**87-00-01
12	3513	3528B/67-72-76	3753*/70-72-76	3769*/70-72-76	3785*/71-72-76
		3593**65-80-83	3700**79-93-95	3730**83-97-98	3755**87-01-02
10	3513	3528B/67-72-76	3754*/70-72-76	3770*/71-72-76	3786*/71-72-76
		3598**65-81-84	3705**79-93-95	3735**84-98-99	3756**88-01-02
8	3514	3529B/68-72-76	3755*/70-72-76	3771*/71-72-76	3787*/71-72-76
		3604**66-81-84	3711**80-94-96	3740**84-98-99	3757**88-01-02
6	3515	3530B/69-72-76	3755*/70-72-76	3771*/71-72-76	3787F/71-72-76
		3609**66-82-85	3716**81-95-96	3745**85-99-00	3758**89-01-02
4	3515	3531B/69-72-76	3756*/70-72-76	3772*/71-72-76	3787F/71-72-76
		3615**67-82-85	3721**81-95-97	3749**86-99-01	3758**90-01-02
2	3515	3533B/70-72-76	3756*/71-72-76	3772*/71-72-76	3787F/71-72-76
		3620**67-83-86	3726**82-96-97	3754**86-00-01	3758**90-01-02
0	3515	3556B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3626**68-84-86	3731**83-97-98	3758**87-01-02	3759**91-01-02
-2	3515	3579B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3632**69-84-87	3735**83-97-99	3759**87-01-02	3759**92-01-02
-4	3516	3604B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3637**69-85-88	3740**84-98-99	3759**88-01-02	3759**92-01-02
-6	3516	3628B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3642**70-85-88	3745**84-99-00	3759**88-01-02	3759**93-01-02
-8	3516	3654B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3648**70-86-89	3749**85-99-00	3759**89-01-02	3759**94-01-02
-10	3516	3679B/70-72-76	3757*/71-72-76	3774*/71-72-76	3787F/71-72-76
		3653**71-87-89	3754**86-00-01	3759**90-01-02	3759**94-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 660 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
08L	404	15759	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08LA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2712*/48-49-53	2749*/48-49-53	2761*/48-49-53	2773*/48-49-53
		2722**65-73-74	2723**67-73-74	2723**68-73-74	2723**68-73-74
58A	2617	2775*/49-50-54	2813*/50-50-54	2825*/50-50-54	2837*/50-50-54
		2771**65-73-75	2780**69-75-76	2780**69-75-76	2780**69-75-76
56A	2682	2844*/51-52-56	2882*/51-52-56	2895*/52-52-56	2907*/51-52-56
		2829**65-74-75	2845**71-77-78	2845**71-77-78	2845**71-77-78
54A	2748	2911*/53-54-58	2950*/53-54-58	2962*/53-54-58	2975*/53-54-58
		2887**65-74-76	2913**73-79-80	2913**73-79-80	2913**73-79-80
52	2821	2984*/55-56-60	3023*/55-56-60	3036*/55-56-60	3049*/55-56-60
		2953**65-74-76	2991**75-82-83	2991**75-82-83	2991**75-82-83
50	2894	3060*/56-58-62	3099*/57-58-62	3113*/57-58-62	3126*/57-58-62
		3018**65-75-77	3069**76-84-85	3069**78-84-85	3069**78-84-85
48	2973	3142*/58-60-65	3183*/59-60-65	3196*/59-60-65	3210*/59-60-65
		3084**65-75-77	3141**76-85-86	3150**80-86-87	3150**80-86-87
46	3046	3219*/60-62-67	3261*/61-62-67	3274*/61-62-67	3289*/61-62-67
		3148**65-75-78	3210**76-85-86	3229**79-89-90	3229**82-89-90
44	3117	3294*/62-64-68	3338*/63-64-68	3353*/63-64-68	3367*/63-64-68
		3210**65-75-78	3277**76-85-87	3306**79-90-91	3309**83-91-92
42	3187	3335B/64-66-70	3414*/64-66-70	3434*/64-66-70	3451*/65-66-70
		3269**65-76-79	3344**76-86-88	3373**79-91-92	3385**83-93-94
40	3254	3292B/65-68-72	3498*/66-68-72	3512*/66-68-72	3527*/66-68-72
		3327**64-76-79	3408**76-86-88	3456**79-91-92	3483**82-93-95
38	3319	3331B/65-69-74	3566*/67-69-74	3581*/68-69-74	3596*/68-69-74
		3379**63-76-79	3501**75-87-89	3528**79-91-92	3552**82-94-96
36	3386	3399B/63-71-75	3635*/69-71-75	3650*/69-71-75	3665*/69-71-75
		3441**62-75-79	3558**75-87-89	3587**79-91-93	3612**82-95-96
34	3454	3467B/61-71-76	3695*/69-71-76	3711*/70-71-76	3726*/70-71-76
		3499**60-75-79	3606**74-87-89	3639**78-91-93	3667**82-95-97
32	3507	3508B/61-72-76	3746*/70-72-76	3762*/70-72-76	3778*/70-72-76
		3538**60-75-79	3648**73-87-89	3682**78-91-93	3714**82-95-97
30	3508	3521B/61-72-76	3747*/70-72-76	3763*/70-72-76	3779*/70-72-76
		3543**60-75-79	3653**74-87-90	3687**78-92-94	3719**83-96-98
28	3508	3522B/61-72-76	3748*/70-72-76	3764*/70-72-76	3779*/70-72-76
		3548**61-76-80	3658**74-88-90	3692**79-92-94	3724**83-97-98
26	3509	3522B/62-72-76	3748*/70-72-76	3764*/70-72-76	3780*/70-72-76
		3553**61-76-80	3664**75-89-91	3697**79-93-95	3728**84-97-99
24	3509	3522B/63-72-76	3749*/70-72-76	3765*/70-72-76	3781*/70-72-76
		3559**62-77-81	3669**75-89-91	3702**80-93-95	3732**85-98-99
22	3510	3523B/63-72-76	3750*/70-72-76	3766*/70-72-76	3781*/70-72-76
		3564**62-77-81	3674**76-90-92	3708**80-94-96	3737**85-98-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 650 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4170 M LONG WITH 105 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.19 PERCENT FOR TODA AND -0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
08LA	2	106	0	10	242	0	404	15684	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08LA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3510	3523B/64-72-76	3750*/70-72-76	3766*/70-72-76	3782*/71-72-76
		3569**63-78-82	3679**76-90-92	3713**81-95-96	3742**86-99-00
18	3511	3524B/65-72-76	3751*/70-72-76	3767*/70-72-76	3783*/71-72-76
		3575**63-78-82	3684**77-91-93	3717**82-95-97	3746**86-00-01
16	3511	3524B/65-72-76	3752*/70-72-76	3768*/70-72-76	3784*/71-72-76
		3580**64-79-82	3690**78-92-94	3722**82-96-97	3750**87-00-01
14	3512	3525B/66-72-76	3752*/70-72-76	3768*/70-72-76	3784*/71-72-76
		3586**64-79-83	3695**78-92-94	3727**83-97-98	3754**87-01-02
12	3513	3526B/67-72-76	3753*/70-72-76	3769*/71-72-76	3785*/71-72-76
		3591**65-80-83	3700**79-93-95	3732**84-97-99	3755**88-01-02
10	3513	3527B/67-72-76	3754*/70-72-76	3770*/71-72-76	3786*/71-72-76
		3597**65-81-84	3706**79-93-95	3737**84-98-99	3756**88-01-02
8	3514	3528B/68-72-76	3755*/70-72-76	3771*/71-72-76	3787*/71-72-76
		3602**66-81-84	3711**80-94-96	3743**85-99-00	3757**89-01-02
6	3515	3529B/69-72-76	3755*/70-72-76	3772*/71-72-76	3787F/71-72-76
		3608**66-82-85	3717**81-95-96	3748**85-99-00	3758**90-01-02
4	3515	3530B/69-72-76	3756*/71-72-76	3772*/71-72-76	3787F/71-72-76
		3614**67-82-85	3722**81-95-97	3752**86-00-01	3758**90-01-02
2	3515	3531B/70-72-76	3756*/71-72-76	3772*/71-72-76	3787F/71-72-76
		3619**67-83-86	3726**82-96-98	3756**87-01-02	3758**91-01-02
0	3515	3552B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3625**68-83-86	3731**82-97-98	3759**87-01-02	3759**92-01-02
-2	3515	3576B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3630**69-84-87	3736**83-97-99	3759**88-01-02	3759**92-01-02
-4	3516	3600B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3636**69-85-87	3741**84-98-99	3759**88-01-02	3759**93-01-02
-6	3516	3625B/70-72-76	3757*/71-72-76	3773*/71-72-76	3787F/71-72-76
		3641**70-85-88	3746**85-99-00	3759**89-01-02	3759**94-01-02
-8	3516	3650B/70-72-76	3757*/71-72-76	3774*/71-72-76	3787F/71-72-76
		3647**70-86-88	3751**85-00-01	3759**90-01-02	3759**94-01-02
-10	3516	3675B/70-72-76	3757*/71-72-76	3774*/71-72-76	3787F/71-72-76
		3652**71-86-89	3756**86-00-01	3759**91-01-02	3759**94-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 660 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4170 M LONG WITH 105 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.19 PERCENT FOR TODA AND -0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
08LA	2	106	0	10	242	0	404	15684	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08R LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2395F/38-43-48	2581F/47-49-53	2646F/48-49-53	2712F/48-49-53
			2570**47-50-54	2599**50-54-57	2627**54-57-60
58A	2617	2430F/39-44-49	2619F/48-50-54	2685F/49-50-54	2751F/49-50-54
			2618**48-51-55	2648**51-54-58	2677**54-58-61
56A	2682	2471F/40-45-51	2662F/48-52-56	2729F/51-52-56	2797F/51-52-56
				2704**52-55-59	2734**55-59-62
54A	2748	2512F/41-46-52	2706F/49-53-57	2773F/53-54-58	2839F/53-54-58
				2760**52-55-59	2790**56-59-63
52	2821	2557F/42-47-53	2754F/50-54-59	2820F/53-56-60	2885F/55-56-60
					2851**56-60-63
50	2894	2603F/43-49-55	2801F/51-55-60	2866F/54-57-62	2932F/56-58-62
					2912**57-60-64
48	2973	2650F/44-50-56	2846F/52-56-61	2912F/54-58-63	2979F/57-60-65
					2976**57-61-65
46	3046	2693F/44-51-57	2887F/52-57-63	2954F/55-59-64	3021F/57-61-66
44	3117	2734F/45-52-59	2928F/53-58-64	2995F/55-60-65	3064F/58-62-67
42	3187	2772F/45-53-60	2968F/53-59-65	3036F/56-61-67	3106F/58-63-68
40	3254	2809F/46-54-61	3007F/53-60-66	3076F/56-62-68	3147F/59-64-69
38	3319	2844F/46-54-62	3043F/54-61-67	3113F/56-63-69	3185F/59-65-71
36	3386	2879F/46-55-63	3081F/54-62-68	3152F/57-64-70	3224F/59-66-72
34	3454	2911F/47-56-64	3115F/54-62-69	3186F/57-65-71	3259F/60-67-73
32	3507	2936F/47-57-65	3143F/55-63-70	3215F/57-65-72	3289F/60-67-73
30	3508	2945F/47-57-65	3152F/55-63-70	3224F/58-66-72	3299F/60-68-74
28	3508	2953F/47-57-65	3161F/55-64-70	3233F/58-66-72	3309F/61-68-74
26	3509	2961F/48-57-65	3170F/56-64-71	3243F/58-66-72	3320F/61-68-74
24	3509	2970F/48-58-66	3179F/56-64-71	3253F/59-66-73	3330F/61-69-74
22	3510	2978F/48-58-66	3189F/56-64-71	3262F/59-67-73	3341F/62-69-74
20	3510	2987F/48-58-66	3198F/57-65-71	3272F/59-67-73	3352F/62-69-75
18	3511	2995F/49-58-66	3208F/57-65-71	3283F/60-67-73	3362F/62-69-75
16	3511	3004F/49-59-66	3218F/57-65-72	3293F/60-68-73	3373F/63-70-75
14	3512	3013F/49-59-67	3227F/58-66-72	3304F/60-68-74	3384F/63-70-75
12	3513	3022F/50-59-67	3237F/58-66-72	3315F/61-68-74	3395F/63-70-76
10	3513	3031F/50-60-67	3247F/58-66-72	3326F/61-68-74	3406F/64-71-76
8	3514	3040F/50-60-67	3258F/59-67-73	3337F/61-69-74	3424F/64-71-76
6	3515	3049F/51-60-68	3268F/59-67-73	3348F/62-69-75	3445F/64-71-76
4	3515	3058F/51-60-68	3278F/59-67-73	3359F/62-69-75	3467F/64-71-76
2	3515	3068F/51-61-68	3289F/60-67-73	3370F/62-70-75	3488F/64-71-76
0	3515	3077F/51-61-68	3300F/60-68-74	3381F/63-70-75	3499F/65-71-76
-2	3515	3086F/52-61-68	3311F/60-68-74	3392F/63-70-76	3510F/65-72-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.24 PERCENT FOR TODA AND -0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

08R 248 16300 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 08R LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-4	3516	3096F/52-62-69	3322F/61-68-74	3404F/63-71-76	3522F/65-72-76 3519**65-72-77
-6	3516	3105F/52-62-69	3333F/61-69-74	3419F/64-71-76	3533F/66-72-76 3524**66-73-77
-8	3516	3115F/53-62-69	3345F/61-69-75	3441F/64-71-76	3545F/67-72-76 3530**66-73-78
-10	3516	3125F/53-63-69	3356F/62-69-75	3463F/64-71-76	3557F/67-72-76 3536**67-74-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.24 PERCENT FOR TODA AND -0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

08R	248	16300	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09L

LFPG

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2375F/38-42-48	2559F/46-49-53	2622F/48-49-53	2687F/49-49-53
				2589**50-52-56	2618**53-56-59
58A	2617	2411F/39-43-49	2597F/47-50-54	2661F/50-50-54	2726F/50-50-54
				2638**50-53-57	2667**54-57-60
56A	2682	2452F/40-44-50	2640F/48-51-55	2705F/51-52-56	2771F/52-52-56
				2693**51-54-57	2723**55-57-61
54A	2748	2492F/41-46-51	2683F/49-52-57	2750F/52-54-58	2815F/53-54-58
					2780**55-58-61
52	2821	2537F/42-47-53	2731F/50-53-58	2798F/53-55-60	2862F/55-56-60
					2841**56-58-62
50	2894	2583F/43-48-54	2779F/51-54-59	2844F/54-57-61	2909F/56-58-62
					2901**56-59-63
48	2973	2630F/43-49-56	2826F/52-56-61	2891F/54-58-62	2957F/57-60-64
46	3046	2673F/44-50-57	2867F/52-57-62	2933F/55-59-64	3000F/57-61-65
44	3117	2715F/45-51-58	2907F/53-57-63	2974F/55-60-65	3042F/58-62-67
42	3187	2755F/46-52-59	2948F/53-58-64	3015F/56-61-66	3084F/58-63-68
40	3254	2792F/46-53-61	2987F/54-59-66	3055F/56-61-67	3125F/59-64-69
38	3319	2826F/46-54-62	3023F/54-60-67	3092F/57-62-68	3162F/59-64-70
36	3386	2862F/47-55-63	3061F/54-61-68	3131F/57-63-69	3202F/60-65-71
34	3454	2893F/47-55-64	3094F/55-62-69	3165F/57-64-70	3237F/60-66-72
32	3507	2918F/47-56-64	3122F/55-62-69	3194F/58-65-71	3266F/60-67-73
30	3508	2926F/47-56-64	3131F/55-63-70	3203F/58-65-71	3276F/61-67-73
28	3508	2934F/48-57-65	3140F/56-63-70	3212F/58-65-72	3286F/61-67-73
26	3509	2943F/48-57-65	3149F/56-63-70	3222F/59-65-72	3296F/61-68-74
24	3509	2951F/48-57-65	3159F/56-64-70	3231F/59-66-72	3306F/62-68-74
22	3510	2959F/48-57-65	3168F/57-64-70	3241F/59-66-72	3317F/62-68-74
20	3510	2968F/49-58-66	3177F/57-64-71	3251F/60-66-72	3327F/62-69-74
18	3511	2976F/49-58-66	3187F/57-64-71	3260F/60-67-73	3338F/63-69-74
16	3511	2985F/49-58-66	3196F/57-65-71	3270F/60-67-73	3348F/63-69-75
14	3512	2994F/50-58-66	3206F/58-65-71	3280F/61-67-73	3359F/63-69-75
12	3513	3003F/50-59-66	3216F/58-65-72	3291F/61-68-73	3370F/64-70-75
10	3513	3012F/50-59-67	3226F/58-66-72	3302F/61-68-74	3382F/64-70-75
8	3514	3021F/51-59-67	3236F/59-66-72	3312F/62-68-74	3393F/64-70-76
6	3515	3030F/51-60-67	3246F/59-66-72	3323F/62-68-74	3404F/65-71-76
4	3515	3039F/51-60-67	3256F/59-67-73	3334F/62-69-74	3419F/65-71-76
2	3515	3048F/51-60-68	3266F/60-67-73	3345F/63-69-75	3441F/65-71-76
0	3515	3057F/52-60-68	3276F/60-67-73	3356F/63-69-75	3462F/65-71-76
-2	3515	3066F/52-61-68	3287F/60-67-73	3367F/63-70-75	3485F/65-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 710 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09L	277	13614	0	287	13672	0	297	13825	0
	431	14094	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09L LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-4 3516 3075F/52-61-68 3298F/61-68-74 3379F/64-70-75 3497F/66-71-76

-6 3516 3085F/53-61-68 3309F/61-68-74 3390F/64-70-76 3508F/66-72-76

-8 3516 3094F/53-62-69 3320F/61-68-74 3401F/64-71-76 3520F/66-72-76

3518**66-72-77

-10 3516 3104F/53-62-69 3331F/62-69-74 3415F/65-71-76 3531F/67-72-76

3523**67-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 710 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

09L 277 13614 0 287 13672 0 297 13825 0

431 14094 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09R

LFPG

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2640*/47-49-53	2700*/48-49-53	2714*/48-49-53	2727*/48-49-53
		2687**66-66-68	2723**68-73-74	2723**68-73-74	2723**68-73-74
58A	2617	2693*/48-50-54	2762*/49-50-54	2777*/50-50-54	2790*/50-50-54
		2738**63-67-69	2780**69-75-76	2780**69-75-76	2780**70-75-76
56A	2682	2756*/50-52-56	2826*/51-52-56	2846*/51-52-56	2859*/52-52-56
		2797**64-68-70	2845**71-77-78	2845**71-77-78	2845**71-77-78
54A	2748	2815*/51-54-58	2891*/53-54-58	2913*/53-54-58	2926*/53-54-58
		2856**65-69-71	2913**72-79-80	2913**73-79-80	2913**73-79-80
52	2821	2881*/52-56-60	2960*/54-56-60	2984*/55-56-60	2999*/55-56-60
		2923**66-70-72	2991**75-82-83	2991**74-82-83	2991**75-82-83
50	2894	2946*/54-58-62	3028*/56-58-62	3053*/56-58-62	3074*/57-58-62
		2989**66-70-73	3064**77-83-84	3069**76-84-85	3069**77-84-85
48	2973	3015*/55-60-65	3100*/57-60-65	3127*/58-60-65	3153*/58-60-65
		3054**66-71-73	3134**77-83-84	3150**79-86-87	3150**78-86-87
46	3046	3078*/56-62-67	3168*/58-62-67	3196*/59-62-67	3223*/60-62-67
		3115**66-71-74	3201**77-83-85	3223**80-87-89	3229**80-89-90
44	3117	3140*/58-64-68	3233*/60-64-68	3263*/60-64-68	3291*/61-64-68
		3175**66-71-74	3266**77-83-85	3291**80-88-89	3309**82-91-92
42	3187	3200*/59-66-70	3298*/61-66-70	3330*/62-66-70	3360*/62-66-70
		3233**66-71-75	3330**77-84-86	3357**80-88-89	3382**84-92-93
40	3254	3258*/60-68-72	3362*/62-68-72	3395*/63-68-72	3436*/63-68-72
		3290**66-72-75	3392**77-84-86	3428**80-88-90	3470**83-92-93
38	3319	3319*/61-69-74	3429*/63-69-74	3480*/64-69-74	3513*/64-69-74
		3340**65-71-76	3474**76-84-86	3509**79-88-90	3537**83-92-93
36	3386	3386*/64-71-75	3509*/64-71-75	3542*/65-71-75	3574*/65-71-75
		3390**64-71-76	3534**76-84-87	3567**79-88-90	3597**83-92-94
34	3454	3442B/63-71-76	3557*/64-71-76	3591*/65-71-76	3624*/66-71-76
			3584**76-84-87	3620**80-89-91	3652**83-93-94
32	3507	3490B/62-71-76	3597*/64-72-76	3633*/65-72-76	3667*/66-72-76
			3624**75-84-87	3663**79-89-91	3697**83-93-95
30	3508	3497B/63-71-76	3601*/64-72-76	3637*/65-72-76	3671*/66-72-76
			3629**75-85-87	3669**80-89-92	3702**84-94-95
28	3508	3504B/63-72-76	3605*/64-72-76	3641*/65-72-76	3675*/66-72-76
			3635**76-85-88	3674**80-90-92	3707**84-94-96
26	3509	3509*/63-72-76	3609*/64-72-76	3645*/65-72-76	3679*/66-72-76
		3510**64-72-76	3640**77-86-88	3679**81-91-93	3712**85-95-96
24	3509	3509*/63-72-76	3613*/64-72-76	3648*/65-72-76	3682*/66-72-76
		3516**64-72-77	3645**77-86-89	3684**82-91-93	3716**85-95-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	51	813	0	283	13013	0	293	13071	0
	303	13225	0	428	13458	0	437	13494	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09R

LFPG

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3510	3510*/62-72-76	3617*/65-72-76	3652*/65-72-76	3686*/66-72-76
		3521**65-73-77	3651**78-87-89	3689**82-92-94	3721**86-96-97
20	3510	3511*/62-72-76	3621*/65-72-76	3656*/65-72-76	3690*/66-72-76
		3527**65-73-78	3656**78-88-90	3694**83-92-94	3725**86-97-98
18	3511	3515*/62-72-76	3625*/65-72-76	3660*/66-72-76	3694*/66-72-76
		3532**66-74-78	3662**79-88-91	3699**83-93-95	3730**87-97-99
16	3511	3519*/62-72-76	3629*/65-72-76	3664*/66-72-76	3697*/66-72-76
		3538**66-74-79	3667**79-89-91	3704**84-93-95	3734**87-98-99
14	3512	3523*/62-72-76	3633*/65-72-76	3668*/66-72-76	3701*/66-72-76
		3544**67-75-79	3673**80-89-92	3709**84-94-96	3739**88-98-00
12	3513	3527*/62-72-76	3637*/65-72-76	3672*/66-72-76	3705*/67-72-76
		3549**67-76-80	3679**81-90-92	3715**85-95-96	3744**89-99-00
10	3513	3532*/62-72-76	3641*/65-72-76	3676*/66-72-76	3709*/67-72-76
		3555**68-76-80	3684**81-91-93	3719**85-95-97	3749**89-00-01
8	3514	3536*/63-72-76	3645*/65-72-76	3680*/66-72-76	3712*/67-72-76
		3561**68-77-81	3690**82-91-93	3724**86-96-97	3754**90-00-01
6	3515	3541*/63-72-76	3649*/65-72-76	3683*/66-72-76	3716*/67-72-76
		3567**69-77-81	3695**82-92-94	3729**86-96-98	3758**90-01-02
4	3515	3545*/63-72-76	3653*/65-72-76	3687*/66-72-76	3719*/67-72-76
		3572**69-78-81	3701**83-93-94	3733**87-97-99	3758**90-01-02
2	3515	3549*/63-72-76	3657*/65-72-76	3690*/66-72-76	3722*/67-72-76
		3578**70-78-82	3706**84-93-95	3738**88-98-99	3758**89-01-02
0	3515	3553*/63-72-76	3660*/65-72-76	3694*/66-72-76	3722*/67-72-76
		3584**70-79-82	3712**84-94-96	3743**88-98-00	3759**89-01-02
-2	3515	3557*/63-72-76	3664*/66-72-76	3697*/66-72-76	3723*/67-72-76
		3590**71-80-83	3717**85-95-96	3747**89-99-00	3759**90-01-02
-4	3516	3561*/63-72-76	3667*/66-72-76	3700*/66-72-76	3723*/67-72-76
		3595**72-80-84	3721**85-95-97	3752**89-00-01	3759**90-01-02
-6	3516	3565*/63-72-76	3671*/66-72-76	3704*/67-72-76	3723*/67-72-76
		3601**72-81-84	3726**86-96-97	3756**90-00-01	3759**90-01-02
-8	3516	3568*/63-72-76	3674*/66-72-76	3705*/67-72-76	3723*/67-72-76
		3607**73-81-85	3730**86-96-98	3759**90-01-02	3759**90-01-02
-10	3516	3572*/63-72-76	3677*/66-72-76	3706*/67-72-76	3724*/67-72-76
		3613**73-82-85	3735**87-97-99	3759**90-01-02	3759**90-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 760 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09R	51	813	0	283	13013	0	293	13071	0
	303	13225	0	428	13458	0	437	13494	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09RA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2634*/47-49-53	2697*/48-49-53	2710*/48-49-53	2724*/48-49-53
		2680**61-65-67	2723**68-73-74	2723**68-73-74	2723**68-73-74
58A	2617	2688*/48-50-54	2756*/49-50-54	2773*/50-50-54	2787*/50-50-54
		2731**62-66-68	2780**69-75-76	2780**69-75-76	2780**70-75-76
56A	2682	2750*/50-52-56	2821*/51-52-56	2842*/51-52-56	2856*/52-52-56
		2790**63-67-69	2845**71-77-78	2845**71-77-78	2845**71-77-78
54A	2748	2809*/51-54-58	2885*/53-54-58	2908*/53-54-58	2923*/53-54-58
		2849**64-68-70	2913**72-79-80	2913**73-79-80	2913**73-79-80
52	2821	2874*/52-56-60	2954*/54-56-60	2979*/55-56-60	2996*/55-56-60
		2916**65-68-71	2991**76-82-83	2991**74-82-83	2991**75-82-83
50	2894	2940*/54-58-62	3022*/56-58-62	3048*/56-58-62	3070*/57-58-62
		2982**66-69-72	3061**77-82-84	3069**76-84-85	3069**77-84-85
48	2973	3008*/55-60-65	3094*/57-60-65	3121*/58-60-65	3147*/58-60-65
		3050**67-70-73	3131**77-83-84	3150**79-86-87	3150**78-86-87
46	3046	3071*/56-62-67	3161*/58-62-67	3190*/59-62-67	3217*/60-62-67
		3111**66-70-73	3198**77-83-84	3221**80-87-88	3229**80-89-90
44	3117	3133*/58-64-68	3227*/60-64-68	3256*/60-64-68	3285*/61-64-68
		3170**66-70-74	3263**77-83-85	3289**80-87-89	3309**83-91-92
42	3187	3193*/59-66-70	3290*/61-66-70	3322*/62-66-70	3353*/62-66-70
		3228**66-71-74	3327**77-83-85	3355**80-87-89	3379**84-92-93
40	3254	3254*/60-68-72	3355*/62-68-72	3388*/63-68-72	3425*/63-68-72
		3285**66-71-75	3388**77-84-86	3423**80-88-89	3466**83-92-93
38	3319	3319*/63-69-74	3416*/63-69-74	3470*/64-69-74	3506*/64-69-74
		3335**66-71-75	3469**76-83-86	3506**79-88-89	3534**83-92-93
36	3386	3384B/64-71-75	3501*/64-71-75	3535*/65-71-75	3567*/65-71-75
			3530**76-84-86	3564**80-88-90	3594**83-92-94
34	3454	3432B/63-71-76	3549*/64-71-76	3584*/65-71-76	3617*/66-71-76
			3580**76-84-86	3617**80-88-90	3648**83-92-94
32	3507	3482B/62-71-76	3589*/64-72-76	3625*/65-72-76	3660*/66-72-76
			3620**75-84-87	3660**79-88-91	3694**83-93-95
30	3508	3490B/63-71-76	3593*/64-72-76	3629*/65-72-76	3664*/66-72-76
			3625**76-84-87	3665**80-89-91	3699**84-93-95
28	3508	3497B/63-71-76	3597*/64-72-76	3633*/65-72-76	3667*/66-72-76
			3631**76-85-88	3670**81-89-92	3704**84-94-96
26	3509	3503B/64-72-76	3602*/64-72-76	3637*/65-72-76	3671*/66-72-76
			3636**77-85-88	3676**81-90-92	3709**85-94-96
24	3509	3509*/64-72-76	3606*/64-72-76	3641*/65-72-76	3675*/66-72-76
			3641**77-86-89	3681**82-91-93	3713**85-95-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 750 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09RA	16	393	0	52	790	0	284	13013	0
	294	13071	0	304	13225	0	429	13249	0
	438	13287	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 09RA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3510	3510*/64-72-76	3610*/65-72-76	3645*/65-72-76	3679*/66-72-76
		3515**65-72-77	3647**78-87-89	3686**82-91-93	3718**86-96-97
20	3510	3510*/63-72-76	3614*/65-72-76	3649*/65-72-76	3683*/66-72-76
		3521**65-73-77	3652**78-87-90	3691**83-92-94	3722**86-96-98
18	3511	3511*/63-72-76	3618*/65-72-76	3653*/66-72-76	3686*/66-72-76
		3527**66-73-78	3658**79-88-90	3696**83-92-94	3727**87-97-98
16	3511	3511*/62-72-76	3622*/65-72-76	3656*/66-72-76	3690*/66-72-76
		3532**66-74-78	3663**79-88-91	3701**84-93-95	3731**88-97-99
14	3512	3515*/62-72-76	3626*/65-72-76	3660*/66-72-76	3694*/66-72-76
		3538**67-74-79	3669**80-89-91	3706**84-94-95	3736**88-98-99
12	3513	3519*/62-72-76	3630*/65-72-76	3664*/66-72-76	3698*/67-72-76
		3544**67-75-79	3675**81-90-92	3711**85-94-96	3741**89-99-00
10	3513	3524*/62-72-76	3634*/65-72-76	3668*/66-72-76	3701*/67-72-76
		3550**68-76-80	3681**81-90-92	3716**85-95-96	3746**89-99-00
8	3514	3528*/63-72-76	3638*/65-72-76	3672*/66-72-76	3705*/67-72-76
		3556**68-76-80	3686**82-91-93	3721**86-95-97	3751**90-00-01
6	3515	3532*/63-72-76	3642*/65-72-76	3676*/66-72-76	3709*/67-72-76
		3561**69-77-81	3692**82-91-93	3726**86-96-98	3755**90-00-02
4	3515	3537*/63-72-76	3645*/65-72-76	3679*/66-72-76	3712*/67-72-76
		3567**69-77-81	3697**83-92-94	3730**87-97-98	3758**91-01-02
2	3515	3541*/63-72-76	3649*/65-72-76	3683*/66-72-76	3715*/67-72-76
		3573**70-78-82	3703**84-93-95	3735**88-97-99	3758**90-01-02
0	3515	3545*/63-72-76	3653*/65-72-76	3686*/66-72-76	3718*/67-72-76
		3579**71-78-82	3708**84-93-95	3740**88-98-99	3759**90-01-02
-2	3515	3549*/63-72-76	3656*/66-72-76	3690*/66-72-76	3718*/67-72-76
		3584**71-79-83	3713**85-94-96	3744**89-99-00	3759**90-01-02
-4	3516	3553*/63-72-76	3660*/66-72-76	3693*/66-72-76	3718*/67-72-76
		3590**72-80-83	3718**85-95-96	3749**89-99-00	3759**90-01-02
-6	3516	3556*/63-72-76	3663*/66-72-76	3696*/67-72-76	3719*/67-72-76
		3596**72-80-84	3722**86-95-97	3754**90-00-01	3759**90-01-02
-8	3516	3560*/63-72-76	3667*/66-72-76	3699*/67-72-76	3719*/67-72-76
		3602**73-81-84	3727**87-96-98	3757**91-01-02	3759**90-01-02
-10	3516	3564*/63-72-76	3670*/66-72-76	3701*/67-72-76	3719*/67-72-76
		3607**74-81-85	3731**87-97-98	3759**91-01-02	3759**90-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 760 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
09RA	16	393	0	52	790	0	284	13013	0
	294	13071	0	304	13225	0	429	13249	0
	438	13287	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26L

LFPG

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

60A	2560	2371F/38-42-48	2554F/46-49-53	2617F/48-49-53	2682F/49-49-53
				2587**50-52-56	2616**53-56-59
58A	2617	2407F/39-43-49	2592F/47-50-54	2656F/50-50-54	2721F/50-50-54
				2635**50-53-56	2665**54-56-60
56A	2682	2448F/40-44-50	2636F/48-51-55	2700F/51-52-56	2766F/52-52-56
				2691**51-53-57	2721**54-57-60
54A	2748	2488F/41-45-51	2679F/49-52-56	2745F/52-54-58	2810F/54-54-58
					2778**55-58-61
52	2821	2533F/42-47-53	2726F/50-53-58	2794F/53-55-60	2857F/55-56-60
					2838**56-58-62
50	2894	2579F/42-48-54	2775F/51-54-59	2840F/54-56-61	2904F/56-58-62
					2899**56-59-63
48	2973	2626F/43-49-56	2822F/52-55-61	2886F/54-58-62	2953F/57-60-64
46	3046	2668F/44-50-57	2863F/52-56-62	2928F/55-58-64	2996F/57-61-65
44	3117	2711F/45-51-58	2903F/53-57-63	2970F/55-59-65	3037F/58-62-66
42	3187	2751F/46-52-59	2944F/53-58-64	3011F/56-60-66	3079F/58-63-68
40	3254	2788F/46-53-60	2983F/54-59-65	3051F/56-61-67	3120F/59-63-69
38	3319	2822F/46-54-61	3019F/54-60-66	3088F/57-62-68	3158F/59-64-70
36	3386	2858F/47-55-63	3057F/54-61-68	3127F/57-63-69	3198F/60-65-71
34	3454	2889F/47-55-63	3090F/55-62-68	3161F/57-64-70	3232F/60-66-72
32	3507	2915F/47-56-64	3118F/55-62-69	3189F/58-65-71	3262F/60-67-73
30	3508	2923F/47-56-64	3127F/55-63-69	3199F/58-65-71	3271F/61-67-73
28	3508	2931F/48-56-65	3136F/56-63-70	3208F/58-65-71	3281F/61-67-73
26	3509	2939F/48-57-65	3145F/56-63-70	3218F/59-65-72	3291F/61-68-73
24	3509	2947F/48-57-65	3154F/56-63-70	3227F/59-66-72	3302F/62-68-74
22	3510	2956F/49-57-65	3164F/57-64-70	3236F/59-66-72	3312F/62-68-74
20	3510	2964F/49-57-65	3173F/57-64-71	3246F/60-66-72	3322F/62-68-74
18	3511	2973F/49-58-66	3183F/57-64-71	3256F/60-67-73	3333F/63-69-74
16	3511	2981F/49-58-66	3192F/58-65-71	3266F/60-67-73	3344F/63-69-75
14	3512	2990F/50-58-66	3202F/58-65-71	3275F/61-67-73	3354F/63-69-75
12	3513	2999F/50-59-66	3212F/58-65-72	3286F/61-67-73	3366F/64-70-75
10	3513	3008F/50-59-67	3222F/58-65-72	3297F/61-68-74	3377F/64-70-75
8	3514	3017F/51-59-67	3232F/59-66-72	3307F/62-68-74	3388F/64-70-75
6	3515	3026F/51-59-67	3241F/59-66-72	3318F/62-68-74	3399F/65-70-76
4	3515	3035F/51-60-67	3251F/60-66-72	3329F/62-69-74	3410F/65-71-76
2	3515	3044F/52-60-67	3261F/60-67-73	3340F/63-69-74	3431F/65-71-76
0	3515	3053F/52-60-68	3272F/60-67-73	3351F/63-69-75	3453F/65-71-76
-2	3515	3062F/52-61-68	3282F/61-67-73	3362F/63-69-75	3475F/65-71-76
-4	3516	3071F/52-61-68	3293F/61-68-73	3374F/64-70-75	3492F/66-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.24 PERCENT FOR TODA AND 0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

26L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26L LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3516	3081F/53-61-68	3304F/61-68-74	3385F/64-70-75	3503F/66-72-76

-8	3516	3090F/53-61-69	3315F/62-68-74	3396F/64-70-76	3514F/66-72-76

-10	3516	3100F/53-62-69	3326F/62-68-74	3408F/65-71-76	3526F/67-72-76

3521**67-72-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.24 PERCENT FOR TODA AND 0.24 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

26L	NONE								

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26R LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE
CHARLES DE GAULLE

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2560	2615*/48-49-53	2651*/49-49-53	2663*/49-49-53	2675*/49-49-53
		2713**64-71-72	2723**68-73-74	2723**68-73-74	2723**69-73-74
58A	2617	2664*/50-50-54	2700*/50-50-54	2712*/50-50-54	2725*/50-50-54
		2763**65-72-73	2780**70-75-76	2780**70-75-76	2780**70-75-76
56A	2682	2718*/52-52-56	2759*/52-52-56	2773*/52-52-56	2787*/52-52-56
		2819**65-72-73	2845**72-77-78	2845**72-77-78	2845**72-77-78
54A	2748	2780*/53-54-58	2823*/54-54-58	2837*/54-54-58	2851*/54-54-58
		2877**65-72-74	2913**74-79-80	2913**74-79-80	2913**74-79-80
52	2821	2851*/55-56-60	2895*/56-56-60	2910*/56-56-60	2924*/56-56-60
		2942**65-73-74	2991**75-82-83	2991**76-82-83	2991**76-82-83
50	2894	2924*/57-58-62	2967*/58-58-62	2980*/58-58-62	2994*/58-58-62
		3006**65-73-75	3069**75-84-85	3069**78-84-85	3069**78-84-85
48	2973	2995*/59-60-65	3036*/60-60-65	3050*/60-60-65	3064*/60-60-65
		3072**65-73-76	3141**75-85-86	3150**79-86-87	3150**81-86-87
46	3046	3060*/61-62-67	3103*/62-62-67	3117*/62-62-67	3131*/62-62-67
		3135**65-73-76	3209**75-85-86	3228**79-88-90	3229**83-89-90
44	3117	3125*/63-64-68	3168*/63-64-68	3183*/64-64-68	3198*/64-64-68
		3196**65-74-77	3275**75-85-87	3297**79-89-90	3309**83-91-92
42	3187	3187*/65-66-70	3234*/65-66-70	3250*/65-66-70	3266*/66-66-70
		3255**65-74-77	3340**75-85-87	3364**79-89-90	3385**82-93-94
40	3254	3308*/60-68-72	3298*/67-68-72	3315*/67-68-72	3332*/68-68-72
		3314**65-74-78	3403**75-86-88	3439**79-89-91	3475**82-93-94
38	3319	3366*/61-69-74	3364*/68-69-74	3381*/68-69-74	3398*/69-69-74
		3370**64-75-78	3490**74-85-87	3517**78-89-91	3541**82-93-94
36	3386	3434*/62-71-75	3431*/70-71-75	3451*/70-71-75	3470*/70-71-75
		3429**63-74-78	3547**75-86-88	3575**78-89-91	3601**82-93-95
34	3454	3500*/62-71-76	3495*/70-71-76	3514*/71-71-76	3532*/71-71-76
		3491**62-74-78	3599**75-86-88	3628**78-90-92	3656**82-93-95
32	3507	3519B/62-72-76	3547*/71-72-76	3565*/71-72-76	3583*/71-72-76
		3529**61-74-78	3643**75-86-89	3674**78-90-92	3703**82-94-96
30	3508	3538B/62-72-76	3551*/71-72-76	3570*/71-72-76	3588*/71-72-76
		3534**62-74-79	3648**75-87-89	3679**79-91-93	3708**83-94-96
28	3508	3547*/62-72-76	3556*/71-72-76	3574*/71-72-76	3592*/72-72-76
		3540**62-75-79	3653**76-87-90	3683**79-91-93	3712**83-95-97
26	3509	3551*/62-72-76	3560*/71-72-76	3578*/71-72-76	3597*/72-72-76
		3545**63-75-79	3658**76-88-90	3688**80-92-94	3716**84-95-97
24	3509	3555*/62-72-76	3564*/71-72-76	3582*/71-72-76	3601*/72-72-76
		3550**63-76-80	3663**77-88-91	3693**80-92-94	3721**84-96-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 470 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26R	23	534	0	46	1061	0	246	24850	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26R

LFPG

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3510	3559*/62-72-76	3568*/71-72-76	3586*/71-72-76	3605*/72-72-76
		3555**64-76-80	3668**77-89-91	3698**81-93-95	3725**85-97-98
20	3510	3510B/66-72-76	3572*/71-72-76	3590*/71-72-76	3609*/72-72-76
		3561**64-77-81	3673**77-90-92	3703**81-93-95	3730**85-97-99
18	3511	3511B/66-72-76	3576*/71-72-76	3594*/71-72-76	3613*/72-72-76
		3566**65-77-81	3678**78-90-92	3708**82-94-96	3734**86-98-99
16	3511	3511B/67-72-76	3580*/71-72-76	3599*/72-72-76	3617*/72-72-76
		3572**65-78-82	3683**79-91-93	3712**82-95-96	3739**86-98-00
14	3512	3512B/68-72-76	3584*/71-72-76	3603*/72-72-76	3621*/72-72-76
		3577**66-79-82	3688**79-91-93	3717**83-95-97	3743**87-99-00
12	3513	3513B/68-72-76	3589*/71-72-76	3607*/72-72-76	3625*/72-72-76
		3583**66-79-83	3693**80-92-94	3722**83-96-97	3748**87-00-01
10	3513	3513B/69-72-76	3593*/71-72-76	3611*/72-72-76	3629*/72-72-76
		3589**67-80-83	3698**80-92-94	3727**84-96-98	3753**88-00-01
8	3514	3514B/70-72-76	3597*/71-72-76	3615*/72-72-76	3633*/72-72-76
		3594**67-80-84	3703**81-93-95	3731**85-97-98	3757**88-01-02
6	3515	3515B/70-72-76	3601*/71-72-76	3619*/72-72-76	3637*/72-72-76
		3600**68-81-84	3708**81-94-95	3736**85-98-99	3758**89-01-02
4	3515	3528B/71-72-76	3605*/72-72-76	3623*/72-72-76	3641*/72-72-76
		3605**68-81-85	3713**82-94-96	3741**86-98-99	3758**90-01-02
2	3515	3551B/71-72-76	3609*/72-72-76	3627*/72-72-76	3645*/72-72-76
		3611**69-82-85	3718**82-95-96	3745**86-99-00	3758**91-01-02
0	3515	3558*/71-72-76	3612*/72-72-76	3630*/72-72-76	3648*/72-72-76
		3617**70-83-86	3723**83-95-97	3750**87-99-01	3759**91-01-02
-2	3515	3561*/71-72-76	3616*/72-72-76	3634*/72-72-76	3652*/72-72-76
		3622**70-83-86	3727**83-96-98	3754**87-00-01	3759**92-01-02
-4	3516	3565*/71-72-76	3620*/72-72-76	3637*/72-72-76	3655*/72-72-76
		3628**71-84-87	3732**84-97-98	3758**88-01-02	3759**93-01-02
-6	3516	3569*/71-72-76	3623*/72-72-76	3641*/72-72-76	3659*/72-72-76
		3634**71-84-87	3736**84-97-99	3759**89-01-02	3759**93-01-02
-8	3516	3572*/71-72-76	3627*/72-72-76	3645*/72-72-76	3662*/72-72-76
		3639**72-85-88	3740**85-98-99	3759**89-01-02	3759**94-01-02
-10	3516	3576*/71-72-76	3630*/72-72-76	3648*/72-72-76	3666*/72-72-76
		3645**73-86-88	3745**86-99-00	3759**90-01-02	3759**95-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4142 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26R	23	534	0	46	1061	0	246	24850	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26RA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2616*/49-49-53	2652*/49-49-53	2664*/49-49-53	2676*/49-49-53
		2718**66-72-74	2723**68-73-74	2723**68-73-74	2723**69-73-74
58A	2617	2665*/50-50-54	2701*/50-50-54	2714*/50-50-54	2726*/50-50-54
		2768**66-73-74	2780**70-75-76	2780**70-75-76	2780**70-75-76
56A	2682	2719*/52-52-56	2761*/52-52-56	2774*/52-52-56	2788*/52-52-56
		2826**66-73-75	2845**72-77-78	2845**72-77-78	2845**72-77-78
54A	2748	2781*/54-54-58	2824*/54-54-58	2838*/54-54-58	2852*/54-54-58
		2884**66-73-75	2913**74-79-80	2913**74-79-80	2913**74-79-80
52	2821	2853*/55-56-60	2897*/56-56-60	2911*/56-56-60	2925*/56-56-60
		2949**66-74-76	2991**76-82-83	2991**76-82-83	2991**76-82-83
50	2894	2925*/57-58-62	2968*/58-58-62	2981*/58-58-62	2995*/58-58-62
		3013**66-74-76	3069**77-84-85	3069**78-84-85	3069**78-84-85
48	2973	2996*/59-60-65	3038*/60-60-65	3051*/60-60-65	3065*/60-60-65
		3080**66-74-77	3141**77-85-86	3150**80-86-87	3150**81-86-87
46	3046	3062*/61-62-67	3104*/62-62-67	3118*/62-62-67	3132*/62-62-67
		3144**66-74-77	3210**76-85-86	3229**80-89-90	3229**83-89-90
44	3117	3126*/63-64-68	3169*/64-64-68	3184*/64-64-68	3199*/64-64-68
		3205**66-75-78	3277**76-85-87	3304**80-90-91	3309**84-91-92
42	3187	3189*/65-66-70	3236*/65-66-70	3251*/65-66-70	3267*/66-66-70
		3264**66-75-78	3344**76-86-88	3371**80-90-92	3385**84-93-94
40	3254	3314*/60-68-72	3300*/67-68-72	3316*/67-68-72	3333*/68-68-72
		3323**66-75-79	3408**76-86-88	3452**80-90-92	3483**83-93-95
38	3319	3372*/61-69-74	3365*/68-69-74	3382*/69-69-74	3399*/69-69-74
		3376**65-75-79	3499**76-87-89	3525**79-90-92	3550**83-94-95
36	3386	3444*/62-71-75	3433*/70-71-75	3452*/70-71-75	3472*/71-71-75
		3436**63-75-79	3557**76-87-89	3585**79-91-92	3609**83-94-96
34	3454	3506*/62-71-76	3497*/70-71-76	3516*/71-71-76	3534*/71-71-76
		3496**62-74-78	3607**75-87-89	3638**79-91-93	3665**83-95-96
32	3507	3520B/62-72-76	3549*/71-72-76	3567*/71-72-76	3585*/71-72-76
		3534**61-74-79	3649**74-87-89	3682**79-91-93	3712**83-95-97
30	3508	3539B/62-72-76	3553*/71-72-76	3571*/71-72-76	3590*/72-72-76
		3539**62-75-79	3654**75-88-90	3687**80-92-94	3716**84-96-97
28	3508	3553*/62-72-76	3558*/71-72-76	3576*/71-72-76	3594*/72-72-76
		3545**62-75-79	3659**76-88-90	3693**80-92-94	3721**84-96-98
26	3509	3557*/62-72-76	3562*/71-72-76	3580*/71-72-76	3599*/72-72-76
		3550**63-76-80	3664**76-89-91	3698**81-93-95	3725**85-97-98
24	3509	3561*/62-72-76	3566*/71-72-76	3584*/71-72-76	3603*/72-72-76
		3555**63-76-80	3670**77-89-91	3703**81-94-95	3730**85-97-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4215 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.19 PERCENT FOR TODA AND 0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26RA	23	534	0	46	1042	0	108	5110	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 26RA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3510	3510B/65-72-76	3570*/71-72-76	3588*/71-72-76	3607*/72-72-76
		3560**64-77-81	3675**77-90-92	3708**82-94-96	3734**86-98-99
20	3510	3510B/66-72-76	3574*/71-72-76	3592*/71-72-76	3611*/72-72-76
		3566**64-77-81	3680**78-90-93	3713**82-95-96	3739**86-99-00
18	3511	3511B/66-72-76	3578*/71-72-76	3597*/72-72-76	3615*/72-72-76
		3571**65-78-82	3685**78-91-93	3717**83-95-97	3743**87-99-00
16	3511	3511B/67-72-76	3582*/71-72-76	3601*/72-72-76	3619*/72-72-76
		3577**65-79-82	3690**79-92-94	3722**83-96-97	3748**87-00-01
14	3512	3512B/68-72-76	3586*/71-72-76	3605*/72-72-76	3622*/72-72-76
		3582**66-79-83	3696**80-92-94	3726**84-96-98	3752**88-00-01
12	3513	3513B/68-72-76	3590*/71-72-76	3609*/72-72-76	3627*/72-72-76
		3588**66-80-83	3701**80-93-95	3731**85-97-98	3755**89-01-02
10	3513	3513B/69-72-76	3595*/71-72-76	3613*/72-72-76	3631*/72-72-76
		3593**67-80-84	3707**81-94-95	3736**85-98-99	3756**89-01-02
8	3514	3514B/70-72-76	3599*/71-72-76	3617*/72-72-76	3635*/72-72-76
		3599**67-81-84	3712**81-94-96	3740**86-98-00	3757**90-01-02
6	3515	3515B/71-72-76	3603*/72-72-76	3621*/72-72-76	3639*/72-72-76
		3605**68-81-85	3718**82-95-96	3745**86-99-00	3758**91-01-02
4	3515	3528B/71-72-76	3607*/72-72-76	3625*/72-72-76	3643*/72-72-76
		3610**68-82-85	3723**83-95-97	3750**87-99-01	3758**91-01-02
2	3515	3551B/71-72-76	3610*/72-72-76	3628*/72-72-76	3646*/72-72-76
		3616**69-82-86	3727**83-96-98	3754**87-00-01	3758**92-01-02
0	3515	3560*/71-72-76	3614*/72-72-76	3632*/72-72-76	3650*/72-72-76
		3621**70-83-86	3732**84-97-98	3758**88-01-02	3759**93-01-02
-2	3515	3563*/71-72-76	3618*/72-72-76	3636*/72-72-76	3654*/72-72-76
		3627**70-84-87	3736**84-97-99	3759**89-01-02	3759**93-01-02
-4	3516	3567*/71-72-76	3621*/72-72-76	3639*/72-72-76	3657*/72-72-76
		3633**71-84-87	3741**85-98-99	3759**89-01-02	3759**94-01-02
-6	3516	3571*/71-72-76	3625*/72-72-76	3643*/72-72-76	3661*/72-72-76
		3638**71-85-88	3745**86-99-00	3759**90-01-02	3759**95-01-02
-8	3516	3574*/71-72-76	3628*/72-72-76	3646*/72-72-76	3664*/72-72-76
		3644**72-86-88	3750**86-99-01	3759**91-01-02	3759**95-01-02
-10	3516	3578*/71-72-76	3632*/72-72-76	3650*/72-72-76	3668*/72-72-76
		3649**73-86-89	3754**87-00-01	3759**91-01-02	3759**95-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4215 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.19 PERCENT FOR TODA AND 0.19 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
26RA	23	534	0	46	1042	0	108	5110	0
	249	24914	0	256	25157	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27L LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2667*/47-49-53	2707*/48-49-53	2720*/48-49-53	2733*/48-49-53
		2722**66-73-74	2723**67-73-74	2723**68-73-74	2723**68-73-74
58A	2617	2730*/49-50-54	2770*/49-50-54	2783*/49-50-54	2797*/50-50-54
		2772**66-74-75	2780**69-75-76	2780**69-75-76	2780**70-75-76
56A	2682	2798*/51-52-56	2839*/51-52-56	2852*/51-52-56	2866*/51-52-56
		2829**66-74-75	2845**71-77-78	2845**71-77-78	2845**71-77-78
54A	2748	2864*/53-54-58	2906*/53-54-58	2919*/53-54-58	2933*/53-54-58
		2888**66-74-76	2913**73-79-80	2913**73-79-80	2913**73-79-80
52	2821	2936*/54-56-60	2978*/55-56-60	2992*/55-56-60	3006*/55-56-60
		2953**66-74-76	2991**75-82-83	2991**75-82-83	2991**75-82-83
50	2894	3010*/56-58-62	3053*/57-58-62	3067*/57-58-62	3081*/57-58-62
		3018**66-75-77	3069**76-84-85	3069**78-84-85	3069**77-84-85
48	2973	3092*/58-60-65	3135*/59-60-65	3149*/59-60-65	3164*/59-60-65
		3085**66-75-77	3141**76-85-86	3150**80-86-87	3150**80-86-87
46	3046	3167*/60-62-67	3212*/61-62-67	3226*/61-62-67	3241*/61-62-67
		3148**66-75-78	3210**76-85-86	3229**80-89-90	3229**82-89-90
44	3117	3240*/62-64-68	3285*/62-64-68	3301*/63-64-68	3316*/63-64-68
		3210**65-75-78	3277**76-85-87	3305**80-90-91	3309**84-91-92
42	3187	3313*/64-66-70	3360*/64-66-70	3376*/64-66-70	3392*/64-66-70
		3269**65-76-79	3344**76-86-88	3372**80-90-92	3385**83-93-94
40	3254	3304B/65-68-72	3437*/66-68-72	3456*/66-68-72	3474*/66-68-72
		3326**65-76-79	3408**76-86-88	3454**79-90-92	3483**83-93-95
38	3319	3339B/65-69-74	3512*/67-69-74	3528*/67-69-74	3544*/68-69-74
		3378**63-75-79	3500**75-87-89	3526**79-90-92	3551**83-94-95
36	3386	3406B/63-71-75	3579*/69-71-75	3595*/69-71-75	3611*/69-71-75
		3439**62-75-79	3556**75-87-89	3586**79-91-93	3611**83-95-96
34	3454	3475B/61-71-76	3638*/69-71-76	3655*/69-71-76	3671*/70-71-76
		3498**61-75-79	3604**74-87-89	3637**79-91-93	3666**83-95-96
32	3507	3510B/61-72-76	3688*/70-72-76	3705*/70-72-76	3721*/70-72-76
		3537**60-75-79	3645**73-87-89	3679**78-91-93	3712**83-95-97
30	3508	3529B/61-72-76	3688*/70-72-76	3705*/70-72-76	3722*/70-72-76
		3542**60-75-79	3651**74-87-90	3684**79-91-93	3716**83-96-97
28	3508	3530B/61-72-76	3689*/70-72-76	3706*/70-72-76	3723*/70-72-76
		3547**61-76-80	3656**74-88-90	3689**79-92-94	3721**84-96-98
26	3509	3530B/62-72-76	3690*/70-72-76	3707*/70-72-76	3723*/70-72-76
		3552**61-76-80	3661**75-88-91	3695**80-93-94	3726**84-97-98
24	3509	3530B/63-72-76	3690*/70-72-76	3707*/70-72-76	3724*/70-72-76
		3557**62-77-81	3667**76-89-91	3700**80-93-95	3731**85-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 800 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 28 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27L	2	29	0	244	13775	0	260	13852	0
	490	15469	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27L LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3510	3531B/63-72-76	3691*/70-72-76	3708*/70-72-76	3725*/70-72-76
		3563**62-77-81	3672**76-89-92	3705**81-94-95	3735**86-98-99
20	3510	3531B/64-72-76	3692*/70-72-76	3709*/70-72-76	3725*/70-72-76
		3568**63-78-81	3677**77-90-92	3710**81-94-96	3740**86-99-00
18	3511	3532B/65-72-76	3692*/70-72-76	3709*/70-72-76	3726*/70-72-76
		3574**63-78-82	3682**77-91-93	3715**82-95-97	3745**87-99-01
16	3511	3532B/65-72-76	3693*/70-72-76	3710*/70-72-76	3727*/70-72-76
		3579**64-79-82	3687**78-91-93	3720**83-96-97	3749**87-00-01
14	3512	3533B/66-72-76	3693*/70-72-76	3710*/70-72-76	3727*/70-72-76
		3585**64-79-83	3693**78-92-94	3725**83-96-98	3753**88-01-02
12	3513	3534B/67-72-76	3694*/70-72-76	3711*/70-72-76	3728*/70-72-76
		3590**65-80-83	3698**79-93-94	3730**84-97-98	3755**88-01-02
10	3513	3535B/67-72-76	3695*/70-72-76	3712*/70-72-76	3729*/70-72-76
		3596**65-80-84	3704**80-93-95	3735**85-98-99	3756**89-01-02
8	3514	3536B/68-72-76	3696*/70-72-76	3713*/70-72-76	3730*/70-72-76
		3601**66-81-84	3709**80-94-95	3740**85-98-00	3757**89-01-02
6	3515	3537B/69-72-76	3696*/70-72-76	3713*/70-72-76	3731*/71-72-76
		3607**67-82-85	3715**81-94-96	3746**86-99-00	3758**90-01-02
4	3515	3538B/69-72-76	3697*/70-72-76	3714*/70-72-76	3731*/71-72-76
		3612**67-82-85	3720**82-95-97	3751**87-00-01	3758**91-01-02
2	3515	3544B/70-72-76	3697*/70-72-76	3714*/70-72-76	3732*/71-72-76
		3618**68-83-86	3725**82-96-97	3755**87-00-01	3758**91-01-02
0	3515	3567B/70-72-76	3697*/70-72-76	3715*/71-72-76	3732*/71-72-76
		3624**68-83-86	3729**83-96-98	3759**88-01-02	3759**92-01-02
-2	3515	3590B/70-72-76	3697*/70-72-76	3715*/71-72-76	3732*/71-72-76
		3629**69-84-87	3734**83-97-99	3759**88-01-02	3759**93-01-02
-4	3516	3615B/70-72-76	3698*/70-72-76	3715*/71-72-76	3732*/71-72-76
		3635**69-84-87	3739**84-98-99	3759**89-01-02	3759**93-01-02
-6	3516	3640B/70-72-76	3698*/70-72-76	3715*/71-72-76	3733*/71-72-76
		3640**70-85-88	3744**85-99-00	3759**89-01-02	3759**94-01-02
-8	3516	3645*/70-72-76	3698*/71-72-76	3715*/71-72-76	3733*/71-72-76
		3645**71-86-88	3749**86-99-00	3759**90-01-02	3759**94-01-02
-10	3516	3645*/70-72-76	3698*/71-72-76	3715*/71-72-76	3733*/71-72-76
		3651**71-86-89	3754**86-00-01	3759**91-01-02	3759**94-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 810 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 28 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27L	2	29	0	244	13775	0	260	13852	0
	490	15469	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27LA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2667*/47-49-53	2707*/48-49-53	2720*/48-49-53	2733*/48-49-53
		2723**66-73-74	2723**67-73-74	2723**68-73-74	2723**68-73-74
58A	2617	2730*/49-50-54	2770*/49-50-54	2783*/49-50-54	2797*/50-50-54
		2772**66-74-75	2780**69-75-76	2780**69-75-76	2780**70-75-76
56A	2682	2798*/51-52-56	2682*/51-52-56	2852*/51-52-56	2866*/51-52-56
		2830**66-74-75	2845**71-77-78	2845**71-77-78	2845**71-77-78
54A	2748	2864*/52-54-58	2748*/53-54-58	2748*/53-54-58	2748*/53-54-58
		2888**66-74-76	2913**73-79-80	2913**73-79-80	2913**73-79-80
52	2821	2936*/54-56-60	2978*/55-56-60	2992*/55-56-60	3005*/55-56-60
		2954**66-74-76	2991**75-82-83	2991**75-82-83	2991**75-82-83
50	2894	3010*/56-58-62	3053*/57-58-62	3067*/57-58-62	3081*/57-58-62
		3019**66-75-77	3069**76-84-85	3069**77-84-85	3069**77-84-85
48	2973	3092*/58-60-65	3135*/59-60-65	3149*/59-60-65	3164*/59-60-65
		3085**66-75-77	3141**76-85-86	3150**80-86-87	3150**80-86-87
46	3046	3167*/60-62-67	3211*/61-62-67	3226*/61-62-67	3241*/61-62-67
		3149**66-75-78	3210**76-85-86	3229**80-89-90	3229**82-89-90
44	3117	3240*/62-64-68	3285*/62-64-68	3301*/62-64-68	3316*/63-64-68
		3211**65-76-78	3277**76-85-87	3306**80-90-91	3309**84-91-92
42	3187	3312*/64-66-70	3360*/64-66-70	3376*/64-66-70	3392*/64-66-70
		3270**65-76-79	3344**76-86-88	3373**80-90-92	3385**83-93-94
40	3254	3307B/65-68-72	3436*/66-68-72	3456*/66-68-72	3474*/66-68-72
		3327**65-76-79	3408**76-86-88	3454**79-90-92	3483**83-93-95
38	3319	3341B/65-69-74	3512*/67-69-74	3528*/67-69-74	3544*/67-69-74
		3379**63-76-79	3500**75-87-89	3527**79-91-92	3551**83-94-95
36	3386	3408B/63-71-75	3579*/69-71-75	3595*/69-71-75	3611*/69-71-75
		3441**62-75-79	3557**75-87-89	3586**79-91-93	3611**83-95-96
34	3454	3477B/61-71-76	3638*/69-71-76	3655*/69-71-76	3671*/69-71-76
		3499**61-75-79	3605**74-87-89	3637**79-91-93	3666**83-95-96
32	3507	3511B/61-72-76	3688*/70-72-76	3704*/70-72-76	3721*/70-72-76
		3538**60-75-79	3646**73-87-89	3680**78-91-93	3712**83-95-97
30	3508	3529B/61-72-76	3688*/70-72-76	3705*/70-72-76	3722*/70-72-76
		3543**60-75-79	3651**74-87-90	3685**79-91-93	3717**83-96-97
28	3508	3532B/61-72-76	3689*/70-72-76	3706*/70-72-76	3723*/70-72-76
		3548**61-76-80	3657**74-88-90	3690**79-92-94	3721**84-96-98
26	3509	3532B/62-72-76	3690*/70-72-76	3706*/70-72-76	3723*/70-72-76
		3554**61-76-80	3662**75-88-91	3695**80-93-94	3726**84-97-98
24	3509	3532B/63-72-76	3690*/70-72-76	3707*/70-72-76	3724*/70-72-76
		3559**62-77-81	3667**76-89-91	3700**80-93-95	3731**85-98-99
22	3510	3533B/63-72-76	3691*/70-72-76	3708*/70-72-76	3725*/70-72-76
		3564**62-77-81	3673**76-90-92	3706**81-94-96	3736**86-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 800 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27LA	243	13748	0	259	13824	0	489	15441	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27LA LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3510	3533B/64-72-76	3691*/70-72-76	3708*/70-72-76	3725*/70-72-76
		3569**63-78-82	3678**77-90-92	3711**81-94-96	3740**86-99-00
18	3511	3534B/65-72-76	3692*/70-72-76	3709*/70-72-76	3726*/70-72-76
		3575**63-78-82	3683**77-91-93	3716**82-95-97	3745**87-99-01
16	3511	3534B/65-72-76	3693*/70-72-76	3710*/70-72-76	3727*/70-72-76
		3580**64-79-82	3688**78-91-93	3720**83-96-97	3749**87-00-01
14	3512	3535B/66-72-76	3693*/70-72-76	3710*/70-72-76	3727*/70-72-76
		3586**64-79-83	3693**78-92-94	3725**83-96-98	3753**88-01-02
12	3513	3536B/67-72-76	3694*/70-72-76	3711*/70-72-76	3728*/70-72-76
		3591**65-80-83	3699**79-93-94	3731**84-97-98	3755**88-01-02
10	3513	3537B/67-72-76	3695*/70-72-76	3712*/70-72-76	3729*/70-72-76
		3597**65-81-84	3704**80-93-95	3736**85-98-99	3756**89-01-02
8	3514	3538B/68-72-76	3695*/70-72-76	3713*/70-72-76	3730*/70-72-76
		3603**66-81-84	3710**80-94-96	3741**85-98-00	3757**89-01-02
6	3515	3539B/69-72-76	3696*/70-72-76	3713*/70-72-76	3730*/70-72-76
		3608**67-82-85	3715**81-94-96	3746**86-99-00	3758**90-01-02
4	3515	3541B/69-72-76	3696*/70-72-76	3714*/70-72-76	3731*/70-72-76
		3614**67-82-85	3720**82-95-97	3751**87-00-01	3758**91-01-02
2	3515	3547B/70-72-76	3697*/70-72-76	3714*/70-72-76	3731*/70-72-76
		3619**68-83-86	3725**82-96-97	3756**87-00-02	3758**91-01-02
0	3515	3570B/70-72-76	3697*/70-72-76	3714*/70-72-76	3732*/70-72-76
		3625**68-83-86	3730**83-96-98	3759**88-01-02	3759**92-01-02
-2	3515	3594B/70-72-76	3697*/70-72-76	3715*/70-72-76	3732*/70-72-76
		3630**69-84-87	3735**84-97-99	3759**88-01-02	3759**93-01-02
-4	3516	3618B/70-72-76	3697*/70-72-76	3715*/71-72-76	3732*/70-72-76
		3636**69-85-87	3740**84-98-99	3759**89-01-02	3759**93-01-02
-6	3516	3643B/70-72-76	3698*/70-72-76	3715*/71-72-76	3732*/70-72-76
		3641**70-85-88	3745**85-99-00	3759**89-01-02	3759**94-01-02
-8	3516	3645*/70-72-76	3698*/70-72-76	3715*/71-72-76	3732*/70-72-76
		3647**71-86-88	3750**86-99-01	3759**90-01-02	3759**94-01-02
-10	3516	3645*/70-72-76	3698*/70-72-76	3715*/71-72-76	3733*/70-72-76
		3652**71-87-89	3754**86-00-01	3759**91-01-02	3759**94-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 810 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4200 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27LA	243	13748	0	259	13824	0	489	15441	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27R

LFPG

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2560	2391F/38-43-48	2577F/47-49-53	2641F/48-49-53	2707F/48-49-53
			2568**47-50-54	2597**50-53-57	2626**54-57-60
58A	2617	2426F/39-44-49	2614F/47-50-54	2680F/50-50-54	2746F/50-50-54
				2646**51-54-57	2675**54-58-61
56A	2682	2467F/40-45-51	2658F/48-51-56	2724F/51-52-56	2792F/51-52-56
				2702**52-55-58	2732**55-58-62
54A	2748	2508F/41-46-52	2701F/49-53-57	2768F/52-54-58	2834F/53-54-58
				2757**52-55-59	2788**56-59-62
52	2821	2553F/42-47-53	2749F/50-54-58	2816F/53-56-60	2881F/55-56-60
					2849**56-59-63
50	2894	2599F/43-48-55	2797F/51-55-60	2862F/54-57-62	2927F/56-58-62
					2910**56-60-64
48	2973	2646F/43-50-56	2842F/52-56-61	2908F/54-58-63	2975F/57-60-65
46	3046	2689F/44-51-57	2883F/52-57-62	2949F/55-59-64	3017F/57-61-66
44	3117	2731F/45-52-59	2924F/53-58-64	2991F/55-60-65	3059F/58-62-67
42	3187	2769F/45-53-60	2964F/53-59-65	3032F/56-61-66	3101F/58-63-68
40	3254	2806F/46-54-61	3003F/53-60-66	3072F/56-62-68	3142F/59-64-69
38	3319	2840F/46-54-62	3039F/54-61-67	3109F/56-63-69	3180F/59-65-70
36	3386	2876F/46-55-63	3077F/54-62-68	3148F/57-64-70	3220F/59-66-71
34	3454	2907F/47-56-64	3111F/55-62-69	3182F/57-65-71	3255F/60-67-72
32	3507	2933F/47-56-65	3139F/55-63-70	3210F/57-65-71	3284F/60-67-73
30	3508	2941F/47-57-65	3148F/55-63-70	3220F/58-65-72	3295F/60-68-73
28	3508	2949F/47-57-65	3157F/55-64-70	3229F/58-66-72	3305F/61-68-74
26	3509	2957F/48-57-65	3166F/56-64-70	3239F/58-66-72	3315F/61-68-74
24	3509	2966F/48-58-65	3175F/56-64-71	3248F/59-66-72	3326F/61-68-74
22	3510	2974F/48-58-66	3185F/56-64-71	3258F/59-67-73	3336F/62-69-74
20	3510	2983F/48-58-66	3194F/57-65-71	3268F/59-67-73	3347F/62-69-75
18	3511	2991F/49-58-66	3204F/57-65-71	3278F/60-67-73	3357F/62-69-75
16	3511	3000F/49-59-66	3213F/57-65-72	3289F/60-67-73	3368F/63-70-75
14	3512	3009F/49-59-67	3223F/58-66-72	3299F/60-68-74	3379F/63-70-75
12	3513	3018F/50-59-67	3233F/58-66-72	3310F/61-68-74	3390F/63-70-76
10	3513	3027F/50-59-67	3243F/58-66-72	3321F/61-68-74	3401F/64-71-76
8	3514	3036F/50-60-67	3253F/59-66-73	3332F/61-69-74	3414F/64-71-76
6	3515	3045F/51-60-67	3263F/59-67-73	3343F/62-69-75	3436F/64-71-76
4	3515	3054F/51-60-68	3274F/59-67-73	3354F/62-69-75	3457F/64-71-76
2	3515	3064F/51-61-68	3284F/60-67-73	3365F/62-70-75	3480F/64-71-76
0	3515	3073F/52-61-68	3295F/60-68-73	3376F/63-70-75	3494F/65-71-76
-2	3515	3082F/52-61-68	3306F/60-68-74	3387F/63-70-75	3505F/65-72-76
-4	3516	3092F/52-61-69	3317F/61-68-74	3399F/63-70-76	3517F/65-72-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 760 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.16 PERCENT FOR TODA AND -0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
27R	252	14629	0	268	14693	0	482	16341	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 392 FT

RUNWAY 27R LFPG

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

CHARLES DE GAULLE

CHARLES DE GAULLE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-6	3516	3101F/52-62-69	3328F/61-69-74	3410F/64-71-76	3528F/66-72-76

3522**66-73-77

-8	3516	3111F/53-62-69	3339F/61-69-74	3431F/64-71-76	3540F/67-72-76

3528**66-73-77

-10	3516	3120F/53-62-69	3351F/62-69-75	3453F/64-71-76	3552F/67-72-76

3533**67-74-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 760 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2700 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.16 PERCENT FOR TODA AND -0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

27R	252	14629	0	268	14693	0	482	16341	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 17L

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2525	2568*/45-48-52	2649*/46-48-52	2674*/46-48-52	2698*/46-48-52
		2587**52-56-58	2664**62-68-69	2684**66-72-73	2685**66-72-73
58A	2582	2618*/46-49-53	2702*/47-49-53	2727*/48-49-53	2752*/48-49-53
		2636**53-56-59	2714**63-68-70	2735**67-73-74	2741**68-74-75
56A	2647	2676*/48-51-55	2763*/49-51-55	2789*/49-51-55	2815*/50-51-55
		2693**54-57-60	2772**64-69-71	2793**68-73-75	2805**69-76-77
54A	2712	2731*/49-53-57	2825*/51-53-57	2851*/51-53-57	2878*/51-53-57
		2749**55-58-61	2832**65-70-72	2854**69-74-76	2872**72-78-79
52	2778	2786*/50-55-59	2886*/52-55-59	2915*/53-55-59	2941*/53-55-59
		2808**56-59-62	2894**66-71-73	2917**70-75-76	2938**73-79-80
50	2850	2850*/52-57-61	2948*/54-57-61	2980*/54-57-61	3008*/55-57-61
		2870**57-59-63	2959**67-72-74	2985**71-76-77	3007**80-80-81
48	2927	2927*/56-59-63	3013*/55-59-63	3047*/56-59-63	3079*/56-59-63
		2936**60-60-64	3029**68-72-75	3055**76-77-78	3079**75-81-82
46	3002	3001*/61-61-65	3076*/56-61-65	3112*/57-61-65	3147*/58-61-65
			3097**73-73-76	3125**73-77-79	3150**76-81-83
44	3073	3059*/62-62-67	3135*/57-63-67	3172*/58-63-67	3209*/59-63-67
			3161**70-74-77	3191**73-78-80	3217**77-82-84
42	3140	3116*/62-64-68	3191*/59-65-69	3229*/59-65-69	3267*/60-65-69
			3223**71-75-78	3253**74-79-81	3281**78-83-85
40	3209	3171*/63-65-70	3249*/60-66-71	3289*/60-66-71	3330*/61-66-71
			3286**72-76-79	3319**75-80-82	3349**79-84-86
38	3271	3214*/63-66-71	3301*/61-68-73	3344*/61-68-73	3386*/62-68-73
			3345**72-76-79	3379**76-80-83	3412**79-84-87
36	3338	3260*/63-67-72	3358*/62-70-74	3401*/62-70-74	3470*/63-70-74
			3402**72-76-80	3452**76-80-83	3497**79-84-86
34	3397	3300*/63-68-73	3406*/62-71-75	3483*/63-71-75	3526*/64-71-75
			3472**72-76-80	3513**75-80-83	3548**79-85-87
32	3466	3338B/63-69-74	3476*/62-71-76	3524*/63-71-76	3567*/64-71-76
			3524**72-77-80	3561**75-81-84	3597**79-85-87
30	3484	3354B/63-69-75	3495*/62-71-76	3538*/63-71-76	3582*/64-71-76
			3541**72-77-81	3579**76-81-84	3616**79-85-88
28	3484	3362B/63-70-75	3500*/62-71-76	3544*/63-71-76	3587*/64-71-76
			3546**73-78-81	3584**76-82-85	3621**80-86-88
26	3485	3370B/64-70-75	3505*/62-71-76	3549*/63-71-76	3592*/64-71-76
			3552**73-78-82	3590**77-82-85	3626**80-86-89
24	3485	3378B/64-70-75	3510*/62-71-76	3554*/63-71-76	3597*/64-71-76
			3557**74-79-82	3595**77-83-86	3631**81-87-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 120 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.60 PERCENT FOR TODA AND -0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17L	14	190	0	57	373	0	82	1040	0
	93	1520	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 17L

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3486	3386B/65-70-75	3516*/62-71-76	3559*/63-71-76	3603*/64-71-76
			3562**74-79-82	3600**78-83-86	3636**81-88-90
20	3486	3395B/65-71-76	3521*/62-71-76	3565*/63-71-76	3608*/64-71-76
			3567**75-80-83	3605**78-84-87	3641**82-88-90
18	3486	3403B/65-71-76	3526*/63-71-76	3570*/63-71-76	3613*/64-71-76
			3572**75-80-83	3610**79-84-87	3646**82-89-91
16	3487	3412B/66-71-76	3531*/63-71-76	3575*/63-71-76	3618*/64-71-76
			3578**76-81-84	3615**79-85-88	3651**83-89-91
14	3487	3425B/66-71-76	3537*/63-71-76	3581*/64-71-76	3624*/64-71-76
			3583**76-81-84	3621**80-86-88	3656**83-90-92
12	3488	3438B/66-71-76	3542*/63-71-76	3586*/64-71-76	3629*/64-71-76
			3588**76-82-85	3626**80-86-89	3661**84-90-92
10	3488	3451B/67-71-76	3548*/63-71-76	3592*/64-71-76	3635*/65-71-76
			3594**77-82-85	3631**81-87-89	3666**84-91-93
8	3489	3464*/67-71-76	3553*/63-71-76	3597*/64-71-76	3640*/65-71-76
			3600**78-83-86	3637**81-87-90	3672**85-92-94
6	3489	3476*/67-71-76	3559*/63-71-76	3603*/64-71-76	3646*/65-71-76
			3605**78-84-86	3642**82-88-90	3677**86-92-94
4	3489	3487*/68-71-76	3564*/63-71-76	3608*/64-71-76	3651*/65-71-76
			3611**79-84-87	3648**82-89-91	3682**86-93-95
2	3490	3490*/67-71-76	3570*/63-71-76	3613*/64-71-76	3656*/65-71-76
		3494**68-72-76	3616**79-85-87	3653**83-89-91	3687**87-94-95
0	3490	3490*/67-71-76	3575*/63-71-76	3619*/64-71-76	3662*/65-71-76
		3499**69-72-77	3621**80-85-88	3658**83-90-92	3692**87-94-96
-2	3490	3490*/66-71-76	3580*/63-71-76	3624*/64-71-76	3666*/65-71-76
		3505**69-73-77	3626**80-86-89	3663**84-90-92	3697**88-95-96
-4	3490	3490*/66-71-76	3586*/63-71-76	3629*/64-71-76	3671*/65-71-76
		3510**69-73-78	3632**81-87-89	3668**85-91-93	3701**88-96-97
-6	3490	3490*/65-71-76	3591*/64-71-76	3634*/64-71-76	3675*/65-71-76
		3516**70-74-78	3637**81-87-90	3673**85-92-94	3706**89-96-98
-8	3490	3490*/64-71-76	3596*/64-71-76	3639*/64-71-76	3679*/65-71-76
		3522**71-74-79	3642**82-88-90	3678**86-92-94	3710**90-97-98
-10	3490	3490*/64-71-76	3601*/64-71-76	3645*/65-71-76	3683*/65-71-76
		3527**71-75-79	3648**82-88-91	3683**86-93-95	3715**90-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 120 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.60 PERCENT FOR TODA AND -0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17L	14	190	0	57	373	0	82	1040	0
	93	1520	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 17R

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2525	2544*/45-48-52	2624*/46-48-52	2650*/46-48-52	2676*/46-48-52
		2563**50-53-56	2653**61-66-67	2675**65-70-71	2685**67-72-73
58A	2582	2594*/46-49-53	2676*/47-49-53	2703*/48-49-53	2729*/48-49-53
		2612**51-53-57	2703**62-66-68	2726**65-71-72	2741**68-74-75
56A	2647	2652*/48-51-55	2737*/49-51-55	2764*/49-51-55	2791*/50-51-55
		2668**54-54-58	2761**62-67-69	2785**66-72-73	2805**70-76-77
54A	2712	2712*/50-53-57	2797*/51-53-57	2825*/51-53-57	2853*/51-53-57
		2725**53-56-59	2819**63-68-70	2844**67-72-74	2866**71-77-78
52	2778	2778*/53-55-59	2858*/52-55-59	2888*/53-55-59	2916*/53-55-59
		2782**55-57-61	2880**64-69-71	2907**68-73-75	2931**72-78-79
50	2850	2844*/57-57-61	2922*/54-57-61	2952*/54-57-61	2982*/55-57-61
			2946**65-70-72	2975**69-74-76	3000**73-78-80
48	2927	2910*/58-58-63	2988*/55-59-63	3020*/56-59-63	3051*/56-59-63
			3014**66-70-73	3044**70-75-77	3071**74-79-81
46	3002	2974*/60-60-65	3052*/56-61-65	3085*/57-61-65	3118*/58-61-65
			3082**67-71-74	3113**71-76-78	3141**75-80-82
44	3073	3034*/62-62-66	3113*/57-63-67	3147*/58-63-67	3181*/59-63-67
			3146**68-72-75	3179**72-76-79	3208**76-81-83
42	3140	3091*/63-63-68	3170*/59-65-69	3206*/59-65-69	3240*/60-65-69
			3207**69-73-76	3241**73-77-80	3271**77-81-84
40	3209	3150*/62-65-69	3229*/60-66-71	3266*/60-66-71	3303*/61-66-71
			3269**73-74-77	3305**74-78-81	3338**73-82-85
38	3271	3200*/63-66-71	3282*/61-68-73	3321*/61-68-73	3360*/62-68-73
			3328**71-74-78	3365**75-79-82	3401**78-83-85
36	3338	3247*/63-67-72	3339*/62-70-74	3380*/62-70-74	3426*/63-70-74
			3389**72-75-79	3438**75-79-82	3490**79-83-86
34	3397	3288*/63-68-73	3397*/64-71-75	3445*/63-71-75	3501*/64-71-75
			3458**72-75-79	3505**76-80-83	3542**79-84-86
32	3466	3329B/63-69-74	3466*/64-71-76	3504*/63-71-76	3544*/64-71-76
			3514**72-76-79	3554**76-80-83	3592**79-84-87
30	3484	3344B/63-69-75	3484*/63-71-76	3519*/63-71-76	3559*/64-71-76
			3531**72-76-80	3571**76-80-84	3610**79-85-87
28	3484	3352B/64-69-75	3484*/63-71-76	3523*/63-71-76	3563*/64-71-76
			3536**73-76-80	3577**76-81-84	3615**80-85-88
26	3485	3359B/64-70-75	3486*/62-71-76	3528*/63-71-76	3568*/64-71-76
			3542**73-77-81	3582**77-81-84	3620**80-86-88
24	3485	3367B/65-70-75	3491*/62-71-76	3532*/63-71-76	3573*/64-71-76
			3547**74-78-81	3587**77-82-85	3625**81-86-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 200 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.58 PERCENT FOR TODA AND -0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17R	7	219	0	13	304	0	31	393	0
	62	607	0	72	655	0	77	732	0
	82	768	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 17R

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3486	3374B/65-70-75	3496*/62-71-76	3537*/63-71-76	3577*/64-71-76
			3552**74-78-82	3592**78-82-85	3630**81-87-89
20	3486	3381B/65-70-75	3501*/62-71-76	3542*/63-71-76	3582*/64-71-76
			3558**75-79-82	3598**78-83-86	3635**82-87-90
18	3486	3389*/66-70-75	3505*/63-71-76	3546*/63-71-76	3586*/64-71-76
			3563**75-79-83	3603**79-84-86	3640**82-88-90
16	3487	3396*/66-71-76	3510*/63-71-76	3551*/64-71-76	3591*/64-71-76
			3568**76-80-83	3608**79-84-87	3646**83-89-91
14	3487	3403*/67-71-76	3515*/63-71-76	3555*/64-71-76	3595*/64-71-76
			3573**76-80-83	3613**80-85-87	3651**84-89-91
12	3488	3411*/67-71-76	3519*/63-71-76	3560*/64-71-76	3600*/65-71-76
			3579**77-81-84	3619**80-85-88	3656**84-90-92
10	3488	3423*/67-71-76	3524*/63-71-76	3565*/64-71-76	3605*/65-71-76
			3585**77-81-84	3624**81-86-88	3661**85-90-92
8	3489	3434*/68-71-76	3529*/63-71-76	3570*/64-71-76	3609*/65-71-76
			3590**78-82-85	3629**81-86-89	3666**85-91-93
6	3489	3445*/68-71-76	3534*/63-71-76	3574*/64-71-76	3614*/65-71-76
			3596**78-83-85	3635**82-87-89	3671**86-92-93
4	3489	3456*/68-71-76	3539*/63-71-76	3579*/64-71-76	3619*/65-71-76
			3601**79-83-86	3640**82-88-90	3676**86-92-94
2	3490	3466*/69-71-76	3543*/63-71-76	3584*/64-71-76	3623*/65-71-76
			3607**79-84-87	3646**83-88-91	3682**87-93-95
0	3490	3476*/69-71-76	3548*/63-71-76	3588*/64-71-76	3627*/65-71-76
			3612**80-84-87	3651**84-89-91	3687**87-93-95
-2	3490	3483*/69-71-76	3552*/63-71-76	3593*/64-71-76	3632*/65-71-76
			3617**80-85-88	3656**84-90-92	3692**88-94-96
-4	3490	3488*/69-71-76	3557*/64-71-76	3597*/64-71-76	3636*/65-71-76
		3490**70-72-77	3623**81-86-88	3661**85-90-92	3696**89-95-96
-6	3490	3490*/69-71-76	3561*/64-71-76	3601*/64-71-76	3640*/65-71-76
		3495**70-73-77	3628**81-86-89	3666**85-91-93	3701**89-95-97
-8	3490	3490*/68-71-76	3566*/64-71-76	3606*/65-71-76	3645*/65-71-76
		3500**71-74-78	3633**82-87-89	3671**86-91-93	3706**90-96-98
-10	3490	3490*/68-71-76	3570*/64-71-76	3610*/65-71-76	3649*/65-71-76
		3505**71-74-78	3638**82-87-90	3676**86-92-94	3710**90-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 200 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.58 PERCENT FOR TODA AND -0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17R	7	219	0	13	304	0	31	393	0
	62	607	0	72	655	0	77	732	0
	82	768	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 768 FT

RUNWAY 35L

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2525	2334*/41-41-46	2391*/43-43-48	2411*/44-44-49	2430*/45-45-49
		2439**58-63-65	2503**60-65-67	2524**61-66-68	2545**62-67-68
58A	2582	2389*/43-43-48	2448*/45-45-50	2467*/46-46-50	2487*/46-46-51
		2494**59-65-67	2557**62-67-69	2579**63-68-69	2600**64-69-70
56A	2647	2448*/45-45-50	2508*/47-47-52	2528*/47-47-52	2548*/48-48-53
		2552**61-67-68	2617**64-69-71	2639**65-70-71	2661**66-71-72
54A	2712	2505*/46-46-52	2566*/48-48-53	2586*/49-49-54	2607*/50-50-54
		2610**63-69-70	2676**66-71-73	2699**67-72-73	2721**68-73-74
52	2778	2564*/48-48-53	2626*/50-50-55	2647*/51-51-56	2667*/51-51-56
		2667**64-69-71	2738**68-73-75	2761**69-74-75	2784**70-75-76
50	2850	2629*/50-50-55	2692*/52-52-57	2713*/52-52-58	2734*/53-53-58
		2730**65-70-72	2806**70-75-77	2829**71-76-77	2852**72-77-78
48	2927	2700*/52-52-57	2764*/54-54-59	2786*/55-55-60	2807*/55-55-60
		2797**66-71-73	2878**72-77-79	2902**73-78-80	2926**74-79-80
46	3002	2769*/54-54-59	2834*/56-56-61	2856*/56-56-62	2878*/57-57-62
		2859**66-71-74	2950**74-79-81	2974**75-80-82	2999**76-81-83
44	3073	2832*/55-55-61	2898*/57-57-63	2920*/58-58-63	2942*/59-59-64
		2917**66-71-74	3016**76-81-83	3042**77-82-84	3067**78-83-85
42	3140	2893*/57-57-63	2960*/59-59-65	2982*/60-60-65	3005*/60-60-66
		2971**66-72-75	3074**76-81-83	3106**79-84-86	3131**80-85-87
40	3209	2953*/58-58-65	3022*/61-61-66	3045*/61-61-67	3068*/62-62-67
		3027**66-72-75	3134**76-82-84	3168**79-85-87	3199**81-87-88
38	3271	3009*/60-60-66	3079*/62-62-68	3102*/63-63-68	3126*/64-64-69
		3077**66-72-76	3188**76-82-84	3224**79-85-87	3259**82-89-90
36	3338	3066*/61-61-68	3137*/64-64-69	3161*/64-64-70	3184*/65-65-71
		3129**66-72-77	3243**76-82-85	3281**79-85-88	3319**82-89-91
34	3397	3117*/63-63-69	3189*/65-65-71	3214*/66-66-71	3238*/66-66-72
		3175**66-73-77	3293**76-82-85	3333**79-86-88	3372**82-89-91
32	3466	3164*/64-64-70	3238*/66-66-72	3263*/67-67-73	3287*/68-68-73
		3217**66-73-78	3341**76-83-86	3382**79-86-89	3429**82-89-91
30	3484	3180*/64-64-71	3254*/67-67-73	3279*/67-67-73	3304*/68-68-74
		3233**66-73-78	3358**76-83-86	3399**80-87-89	3456**82-90-92
28	3484	3181*/64-64-71	3255*/67-67-73	3280*/67-67-73	3305*/68-68-74
		3237**67-74-79	3362**77-84-87	3403**80-87-90	3462**83-90-92
26	3485	3181*/64-64-71	3255*/67-67-73	3280*/67-67-73	3306*/68-68-74
		3241**67-74-79	3366**77-84-87	3406**81-88-90	3468**83-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1180 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.58 PERCENT FOR TODA AND 0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35L	9	180	0	17	263	0	22	311	0
	43	342	0	48	609	0	71	942	0
	105	1293	0	166	2122	0	278	4075	0
	353	4357	0	371	5665	0	773	9748	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED AT D4.8 MMP VOR/DME (9.0 CAMERI TACAN), TO A MAG COURSE OF 200 DEGREES (FOR CAMERI
 TACAN FREQUENCY SEE MILANO AREA CHART)

ELEVATION 768 FT

RUNWAY 35L

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3485	3182*/64-64-71 3244**68-75-79	3256*/67-67-73 3369**78-85-88	3281*/67-67-73 3410**81-88-91	3307*/68-68-74 3473**84-91-93
22	3486	3182*/64-64-71 3248**68-76-80	3257*/67-67-73 3373**78-86-88	3282*/67-67-73 3416**82-89-91	3307*/68-68-74 3478**84-92-94
20	3486	3183*/64-64-71 3252**69-76-80	3257*/67-67-73 3377**79-86-89	3282*/67-67-73 3422**82-89-92	3308*/68-68-74 3483**85-92-94
18	3486	3183*/64-64-71 3256**69-77-81	3258*/67-67-73 3380**79-87-89	3283*/67-67-73 3429**82-90-92	3309*/68-68-74 3487**85-93-94
16	3487	3184*/64-64-71 3259**70-77-81	3258*/67-67-73 3384**80-87-90	3284*/67-67-73 3434**83-91-93	3310*/68-68-74 3489**86-93-94
14	3487	3184*/64-64-71 3263**70-78-82	3259*/67-67-73 3388**80-88-90	3284*/67-67-73 3439**83-91-93	3310*/68-68-74 3492**87-93-94
12	3488	3185*/64-64-71 3267**71-78-82	3260*/67-67-73 3392**81-89-91	3285*/68-68-73 3445**84-92-94	3311*/68-68-74 3494**87-93-94
10	3488	3185*/64-65-71 3270**71-79-83	3261*/67-67-73 3396**81-89-91	3286*/68-68-73 3451**84-92-94	3312*/68-68-74 3496**87-93-94
8	3489	3186*/65-65-71 3274**72-80-83	3261*/67-67-73 3399**82-90-92	3287*/68-68-73 3455**85-92-94	3313*/68-68-74 3497**87-93-94
6	3489	3186*/65-65-71 3278**72-80-84	3262*/67-67-73 3403**83-90-93	3288*/68-68-73 3459**86-92-94	3314*/68-68-74 3499**87-93-95
4	3489	3187*/65-65-71 3282**73-81-84	3262*/67-67-73 3406**83-91-93	3288*/68-68-73 3463**86-92-94	3314*/68-68-74 3500**87-93-95
2	3490	3187*/65-65-71 3286**73-81-85	3263*/67-67-73 3410**84-92-94	3289*/68-68-73 3466**87-92-94	3315*/68-68-74 3501**87-93-95
0	3490	3187*/65-65-71 3289**74-82-85	3263*/67-67-73 3414**84-92-94	3289*/68-68-73 3467**87-92-94	3315*/68-68-74 3502**87-93-95
-2	3490	3187*/65-65-71 3293**74-83-86	3264*/67-67-73 3418**85-92-94	3290*/68-68-73 3469**87-92-94	3316*/68-68-74 3503**87-93-95
-4	3490	3188*/65-65-71 3296**75-83-86	3264*/67-67-73 3422**85-92-94	3290*/68-68-73 3470**87-92-94	3316*/68-68-74 3504**87-93-95
-6	3490	3188*/65-65-71 3300**76-84-87	3264*/67-67-73 3426**86-92-94	3290*/68-68-73 3471**87-92-94	3317*/68-68-74 3505**87-93-95
-8	3490	3188*/65-65-71 3304**76-85-87	3264*/67-67-73 3429**86-92-94	3290*/68-68-73 3472**87-92-94	3317*/68-68-74 3506**87-93-95
-10	3490	3188*/65-65-71 3307**77-85-88	3264*/67-67-73 3430**86-92-94	3291*/68-68-73 3473**87-92-94	3317*/68-68-74 3506**87-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1180 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 60 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.58 PERCENT FOR TODA AND 0.58 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35L	9	180	0	17	263	0	22	311	0
	43	342	0	48	609	0	71	942	0
	105	1293	0	166	2122	0	278	4075	0
	353	4357	0	371	5665	0	773	9748	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35L BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED AT D4.8 MMP VOR/DME (9.0 CAMERI TACAN), TO A MAG COURSE OF 200 DEGREES (FOR CAMERI
 TACAN FREQUENCY SEE MILANO AREA CHART)

ELEVATION 768 FT

RUNWAY 35R

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2525	2333*/41-41-46	2403*/44-44-48	2425*/44-44-49	2448*/45-45-50
		2387**55-60-62	2470**59-64-66	2497**60-65-67	2524**62-66-68
58A	2582	2384*/43-43-48	2455*/45-45-50	2478*/46-46-51	2501*/47-47-51
		2436**55-59-62	2519**61-66-67	2547**62-67-68	2574**63-68-69
56A	2647	2441*/44-44-50	2514*/47-47-52	2538*/48-48-52	2561*/48-48-53
		2491**56-61-63	2575**61-66-68	2603**64-69-70	2631**65-70-71
54A	2712	2498*/46-46-51	2572*/49-49-54	2597*/49-49-54	2621*/50-50-55
		2545**58-63-65	2631**62-66-68	2660**65-70-72	2688**67-71-73
52	2778	2556*/48-48-53	2632*/50-50-55	2657*/51-51-56	2682*/52-52-57
		2601**60-64-67	2689**64-69-71	2719**66-71-73	2748**68-73-75
50	2850	2619*/49-49-55	2697**52-52-57	2722*/53-53-58	2748*/54-54-59
		2662**62-67-69	2753**65-70-72	2783**68-73-75	2813**70-75-77
48	2927	2687*/51-51-57	2767*/54-54-59	2793*/55-55-60	2820*/56-56-61
		2727**63-68-71	2820**67-72-74	2850**69-73-75	2881**71-76-78
46	3002	2754*/53-53-59	2836*/56-56-61	2863*/57-57-62	2889*/57-57-62
		2790**68-68-71	2886**69-74-76	2918**70-75-77	2949**72-76-79
44	3073	2815*/55-55-61	2899*/57-57-63	2926*/58-58-64	2953*/59-59-64
		2850**65-70-73	2948**71-76-78	2981**72-77-79	3013**74-78-80
42	3140	2874*/56-56-62	2959*/59-59-65	2987*/60-60-65	3014*/61-61-66
		2908**66-70-74	3007**72-77-80	3041**74-79-81	3074**75-80-82
40	3209	2933*/58-58-64	3020*/61-61-66	3048*/61-61-67	3076*/62-62-68
		2966**67-72-75	3068**74-79-81	3102**76-80-83	3136**77-82-84
38	3271	2985*/59-59-66	3074*/62-62-68	3103*/63-63-68	3132*/64-64-69
		3018**68-72-76	3123**75-79-82	3159**77-82-84	3193**79-83-86
36	3338	3041*/61-61-67	3132*/63-63-69	3162*/64-64-70	3191*/65-65-71
		3072**68-71-76	3181**76-81-84	3217**79-84-86	3253**80-85-87
34	3397	3090*/62-62-68	3183*/65-65-71	3213*/66-66-71	3243*/67-67-72
		3118**68-71-76	3232**77-82-84	3269**80-85-88	3307**81-86-89
32	3466	3138*/63-63-70	3233*/66-66-72	3264*/67-67-73	3295*/68-68-73
		3162**68-70-76	3282**77-82-85	3321**81-86-88	3360**83-88-90
30	3484	3153*/64-64-70	3249*/66-66-72	3280*/67-67-73	3312*/68-68-74
		3178**68-71-76	3299**78-82-85	3339**81-86-89	3379**83-88-91
28	3484	3155*/64-64-70	3251*/67-67-72	3282*/67-67-73	3314*/68-68-74
		3182**68-71-76	3303**78-83-86	3343**82-87-89	3382**83-88-91
26	3485	3157*/64-64-70	3253*/67-67-72	3284*/67-67-73	3316*/68-68-74
		3185**69-72-77	3306**79-83-86	3346**82-87-90	3385**83-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1220 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 160 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.60 PERCENT FOR TODA AND 0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35R	8	177	0	13	261	0	21	309	0
	26	363	0	37	415	0	69	767	0
	82	784	0	100	909	0	251	2543	0
	400	5203	0	488	9395	0	785	14633	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D4.0 MMP VOR INTERCEPT AND TRACK OUTBOUND ON THE R-150 MMP VOR.

ELEVATION 768 FT

RUNWAY 35R

LIMC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MALPENSA

MILAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3485	3159*/64-64-70	3255*/67-67-73	3286*/68-68-73	3318*/68-68-74
		3189**69-73-77	3310**79-84-87	3350**82-88-90	3389**84-89-91
22	3486	3161*/64-64-70	3256*/67-67-73	3288*/68-68-73	3320*/68-68-74
		3193**70-73-78	3313**79-84-87	3353**82-88-90	3392**84-89-91
20	3486	3163*/64-64-70	3258*/67-67-73	3290*/68-68-73	3322*/69-69-74
		3197**70-74-78	3317**80-85-87	3357**82-88-90	3396**84-89-91
18	3486	3165*/64-64-70	3260*/67-67-73	3292*/68-68-73	3324*/69-69-74
		3201**71-74-79	3320**80-85-88	3360**83-88-90	3399**84-89-92
16	3487	3167*/64-64-70	3262*/67-67-73	3294*/68-68-73	3326*/69-69-74
		3204**71-75-79	3324**81-86-88	3363**83-88-90	3402**85-90-92
14	3487	3169*/64-64-70	3264*/67-67-73	3296*/68-68-73	3328*/69-69-74
		3208**72-76-80	3327**82-87-89	3367**83-88-90	3406**85-90-92
12	3488	3171*/64-64-71	3266*/67-67-73	3298*/68-68-74	3330*/69-69-74
		3211**72-76-80	3331**82-87-89	3370**83-88-91	3409**85-90-92
10	3488	3173*/64-64-71	3268*/67-67-73	3300*/68-68-74	3332*/69-69-74
		3215**73-77-81	3335**82-87-89	3374**83-89-91	3415**85-90-92
8	3489	3175*/64-64-71	3270*/67-67-73	3302*/68-68-74	3334*/69-69-74
		3219**73-78-82	3338**82-87-90	3377**84-89-91	3421**85-90-93
6	3489	3177*/64-64-71	3272*/67-67-73	3304*/68-68-74	3336*/69-69-74
		3222**74-78-82	3341**82-87-90	3381**84-89-92	3427**86-91-93
4	3489	3179*/64-64-71	3274*/67-67-73	3306*/68-68-74	3338*/69-69-74
		3226**74-79-83	3345**82-88-90	3384**85-90-92	3432**86-91-93
2	3490	3181*/64-64-71	3276*/67-67-73	3308*/68-68-74	3340*/69-69-74
		3230**75-79-83	3348**83-88-90	3387**85-90-92	3438**87-92-94
0	3490	3183*/64-64-71	3277*/67-67-73	3310*/68-68-74	3342*/69-69-74
		3233**75-80-84	3351**83-89-91	3391**85-91-93	3443**87-92-94
-2	3490	3184*/64-64-71	3279*/67-67-73	3311*/68-68-74	3343*/69-69-75
		3236**76-81-84	3355**83-89-91	3394**86-92-94	3448**87-92-94
-4	3490	3186*/65-65-71	3281*/67-67-73	3313*/68-68-74	3345*/69-69-75
		3239**76-81-85	3358**84-89-91	3397**86-92-94	3453**87-92-94
-6	3490	3187*/65-65-71	3282*/67-67-73	3315*/68-68-74	3347*/69-69-75
		3242**77-82-85	3361**85-91-93	3401**86-92-94	3458**87-92-94
-8	3490	3189*/65-65-71	3284*/67-67-73	3316*/68-68-74	3348*/69-69-75
		3245**78-83-86	3364**85-91-93	3404**86-92-94	3463**87-92-94
-10	3490	3190*/65-65-71	3285*/68-68-73	3318*/68-68-74	3350*/69-69-75
		3249**78-84-87	3367**85-91-93	3407**86-92-94	3468**87-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1220 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3920 M LONG WITH 160 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.60 PERCENT FOR TODA AND 0.60 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35R	8	177	0	13	261	0	21	309	0
	26	363	0	37	415	0	69	767	0
	82	784	0	100	909	0	251	2543	0
	400	5203	0	488	9395	0	785	14633	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D4.0 MMP VOR INTERCEPT AND TRACK OUTBOUND ON THE R-150 MMP VOR.

ELEVATION 72 FT RUNWAY 16L OEDF
 *** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING FHAD INT, L
 DAMMAM
 777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
 C 100KG -10 0 10 20

60A	2590	2936F/47-50-54	3122F/48-50-54	3185F/49-50-54	3247F/49-50-54
		2737**65-71-72	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2975F/49-51-55	3164F/50-51-55	3229F/50-51-55	3295F/51-51-55
		2787**65-71-72	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2713	3019F/51-53-57	3211F/52-53-57	3277F/52-53-57	3347F/53-53-57
		2844**65-71-73	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	3065F/52-55-59	3259F/54-55-59	3329F/54-55-59	3400F/54-55-59
		2904**65-72-73	2950**73-80-81	2950**74-80-81	2950**74-80-81
52	2858	3115F/53-57-61	3313F/55-57-61	3385F/56-57-61	3493F/56-57-61
		2970**65-72-74	3032**76-83-84	3032**75-83-84	3032**76-83-84
50	2933	3163F/54-59-63	3367F/56-59-63	3465F/57-59-63	3547F/58-59-63
		3034**65-72-75	3101**76-83-84	3111**77-85-86	3111**78-85-86
48	3010	3211F/56-61-66	3428F/58-61-66	3528F/58-61-66	3601F/59-61-66
		3099**65-72-75	3170**76-83-85	3189**79-87-88	3191**79-87-89
46	3084	3256F/57-63-68	3505F/59-63-68	3577F/60-63-68	3651F/60-63-68
		3161**65-73-76	3237**76-84-85	3258**79-87-89	3271**81-90-91
44	3155	3302F/58-65-69	3552F/60-65-69	3625F/61-65-69	3700F/62-65-69
		3222**65-73-76	3304**76-84-86	3328**79-88-89	3350**83-91-92
42	3225	3349F/59-67-71	3600F/62-67-71	3674F/62-67-71	3749F/63-67-71
		3280**65-73-77	3368**76-84-86	3393**79-88-90	3421**83-92-93
40	3294	3394F/60-69-73	3646F/63-69-73	3720F/63-69-73	3787F/64-69-73
		3340**65-74-77	3442**75-84-86	3483**79-88-89	3509**82-91-93
38	3359	3455F/61-70-75	3689F/64-70-75	3764F/64-70-75	3787F/65-70-75
		3394**65-74-78	3514**75-84-87	3543**79-88-90	3569**82-92-93
36	3432	3512F/62-71-76	3733F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3461**63-73-77	3571**75-85-87	3601**79-88-90	3629**83-92-94
34	3500	3536B/61-71-76	3772F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3513**62-73-77	3624**75-85-88	3655**79-89-91	3684**83-92-94
32	3526	3540B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3535**62-73-78	3649**75-85-88	3681**79-89-91	3711**83-93-95
30	3527	3559B/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3541**62-74-78	3654**76-86-88	3686**80-90-92	3716**83-93-95
28	3528	3578B/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3546**63-74-78	3659**76-86-89	3691**80-90-92	3721**84-94-96
26	3528	3598B/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3552**63-75-79	3664**77-87-89	3696**81-91-93	3726**84-95-96
24	3529	3610F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3558**64-75-79	3670**77-87-90	3701**81-91-93	3731**85-95-97
22	3530	3620F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3563**64-76-80	3675**78-88-90	3706**82-92-94	3735**85-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 16L OEDF

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L
DAMMAM

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3531	3630F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3568**65-76-80	3680**78-89-91	3711**82-92-94	3740**86-96-98
18	3531	3641F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3574**65-77-81	3685**79-89-91	3716**83-93-95	3745**86-97-98
16	3532	3651F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3579**66-77-81	3691**79-90-92	3721**83-94-95	3749**87-97-99
14	3533	3662F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3585**66-78-81	3696**80-90-92	3726**84-94-96	3754**88-98-99
12	3534	3673F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3591**67-78-82	3702**80-91-93	3732**84-95-96	3759**88-99-00
10	3535	3683F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3597**67-79-82	3707**81-91-93	3737**85-95-97	3764**89-99-01
8	3535	3694F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3603**68-79-83	3712**81-92-94	3742**85-96-97	3769**89-00-01
6	3536	3705F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3609**68-80-83	3717**82-93-94	3747**86-97-98	3774**90-01-02
4	3536	3716F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3614**69-81-84	3722**82-93-95	3751**86-97-99	3778**90-01-02
2	3536	3727F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3620**70-81-84	3727**83-94-96	3756**87-98-99	3780**90-01-03
0	3537	3739F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3625**70-82-85	3732**84-94-96	3761**88-98-00	3780**90-01-03
-2	3537	3750F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3631**71-82-85	3737**84-95-97	3765**88-99-00	3780**90-01-03
-4	3537	3761F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3637**71-83-86	3742**85-96-97	3770**89-00-01	3781**90-01-03
-6	3537	3773F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3642**72-84-86	3747**85-96-98	3775**89-00-02	3781**90-01-03
-8	3537	3784F/64-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3648**73-84-87	3751**86-97-98	3779**90-01-02	3781**90-01-03
-10	3537	3787F/64-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3654**73-85-88	3756**86-98-99	3781**90-01-03	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT RUNWAY 16R OEDF

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING FHAD INT, L
DAMMAM
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2939F/47-50-54	3125F/48-50-54	3189F/49-50-54	3252F/49-50-54
		2738**65-71-72	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2978F/49-51-55	3167F/50-51-55	3232F/50-51-55	3298F/51-51-55
		2787**65-71-73	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2713	3022F/50-53-57	3214F/52-53-57	3280F/52-53-57	3351F/52-53-57
		2844**65-71-73	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	3067F/52-55-59	3262F/53-55-59	3332F/54-55-59	3403F/54-55-59
		2904**65-72-74	2950**73-80-81	2950**73-80-81	2950**74-80-81
52	2858	3117F/53-57-61	3316F/55-57-61	3388F/55-57-61	3496F/56-57-61
		2971**65-72-74	3032**75-83-84	3032**75-83-84	3032**76-83-84
50	2933	3166F/54-59-63	3370F/56-59-63	3471F/57-59-63	3550F/57-59-63
		3035**65-72-75	3102**76-83-85	3111**77-85-86	3111**78-85-86
48	3010	3214F/56-61-66	3433F/58-61-66	3531F/58-61-66	3604F/59-61-66
		3100**65-73-75	3171**76-84-85	3190**79-87-88	3191**79-87-89
46	3084	3259F/57-63-68	3507F/59-63-68	3580F/60-63-68	3654F/60-63-68
		3162**65-73-76	3238**76-84-85	3259**79-88-89	3271**81-90-91
44	3155	3305F/58-65-69	3555F/60-65-69	3628F/61-65-69	3703F/62-65-69
		3223**65-73-76	3305**76-84-86	3329**79-88-89	3351**83-91-93
42	3225	3351F/59-67-71	3603F/61-67-71	3676F/62-67-71	3752F/63-67-71
		3282**65-73-77	3369**76-84-86	3394**79-88-90	3422**83-92-93
40	3294	3396F/60-69-73	3649F/63-69-73	3723F/63-69-73	3787F/64-69-73
		3341**65-74-77	3443**75-84-86	3484**79-88-89	3509**82-92-93
38	3359	3459F/61-70-75	3691F/63-70-75	3767F/64-70-75	3787F/65-70-75
		3395**65-74-78	3515**75-84-87	3543**79-88-90	3570**82-92-93
36	3432	3513B/61-71-76	3736F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3461**63-73-77	3572**75-85-87	3602**79-88-91	3630**83-92-94
34	3500	3535B/61-71-76	3775F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3514**62-73-77	3625**75-85-88	3656**79-89-91	3685**83-93-94
32	3526	3538B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3536**62-73-78	3649**75-85-88	3682**79-89-91	3712**83-93-95
30	3527	3557B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3541**62-74-78	3654**76-86-88	3687**80-90-92	3717**83-94-95
28	3528	3577B/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3547**63-74-78	3660**76-86-89	3692**80-90-92	3722**84-94-96
26	3528	3596B/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3553**63-75-79	3665**77-87-89	3697**81-91-93	3727**84-95-96
24	3529	3612F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3558**64-75-79	3671**77-88-90	3702**81-91-93	3732**85-95-97
22	3530	3622F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3564**64-76-80	3676**78-88-90	3707**82-92-94	3736**85-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.06 PERCENT FOR TODA AND 0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 16R OEDF

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L
DAMMAM

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3531	3633F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3569**65-76-80	3681**78-89-91	3712**82-92-94	3741**86-96-98
18	3531	3643F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3574**65-77-81	3687**79-89-91	3717**83-93-95	3746**86-97-98
16	3532	3654F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3580**66-77-81	3692**79-90-92	3722**83-94-95	3750**87-98-99
14	3533	3664F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3586**66-78-82	3697**80-90-92	3727**84-94-96	3755**88-98-00
12	3534	3675F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3592**67-78-82	3703**80-91-93	3733**84-95-96	3760**88-99-00
10	3535	3686F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3598**67-79-82	3708**81-91-94	3738**85-95-97	3765**89-99-01
8	3535	3697F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3603**68-79-83	3713**81-92-94	3743**85-96-98	3770**89-00-01
6	3536	3708F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3609**68-80-83	3718**82-93-95	3748**86-97-98	3775**90-01-02
4	3536	3719F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3615**69-81-84	3723**82-93-95	3752**86-97-99	3779**90-01-02
2	3536	3730F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3620**69-81-84	3728**83-94-96	3757**87-98-99	3780**90-01-03
0	3537	3741F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3626**70-82-85	3733**83-94-96	3762**88-99-00	3780**90-01-03
-2	3537	3753F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3632**71-82-85	3738**84-95-97	3766**88-99-00	3780**90-01-03
-4	3537	3764F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3637**71-83-86	3743**85-96-97	3771**89-00-01	3781**90-01-03
-6	3537	3776F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3643**72-84-87	3747**85-96-98	3775**89-01-02	3781**90-01-03
-8	3537	3787F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3649**72-84-87	3752**86-97-99	3779**90-01-02	3781**90-01-03
-10	3537	3787F/64-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3655**73-85-88	3757**86-98-99	3781**90-01-03	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.06 PERCENT FOR TODA AND 0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

16R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT RUNWAY 34L OEDF

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING FHAD INT, L
DAMMAM
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2946F/47-50-54	3134F/48-50-54	3199F/49-50-54	3264F/49-50-54
		2740**65-71-73	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2985F/49-51-55	3176F/50-51-55	3241F/50-51-55	3309F/51-51-55
		2790**65-71-73	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2713	3030F/50-53-57	3222F/52-53-57	3290F/52-53-57	3361F/52-53-57
		2847**65-72-73	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	3075F/52-55-59	3270F/53-55-59	3341F/54-55-59	3415F/54-55-59
		2907**65-72-74	2950**73-80-81	2950**73-80-81	2950**74-80-81
52	2858	3125F/53-57-61	3325F/55-57-61	3397F/55-57-61	3506F/56-57-61
		2973**65-72-74	3032**75-83-84	3032**75-83-84	3032**76-83-84
50	2933	3173F/54-59-63	3378F/56-59-63	3487F/57-59-63	3560F/57-59-63
		3037**65-73-75	3104**76-84-85	3111**77-85-86	3111**77-85-86
48	3010	3221F/56-61-66	3449F/58-61-66	3539F/58-61-66	3613F/59-61-66
		3103**65-73-76	3173**76-84-85	3191**79-87-89	3191**79-87-89
46	3084	3266F/57-63-68	3516F/59-63-68	3588F/59-63-68	3663F/60-63-68
		3165**65-73-76	3240**76-84-86	3261**79-88-89	3271**81-90-91
44	3155	3312F/58-65-69	3564F/60-65-69	3637F/61-65-69	3712F/61-65-69
		3226**65-73-77	3307**76-84-86	3332**79-88-90	3353**83-92-93
42	3225	3359F/59-67-71	3611F/61-67-71	3685F/62-67-71	3761F/63-67-71
		3285**65-74-77	3372**76-85-87	3397**79-88-90	3426**83-92-93
40	3294	3404F/60-69-73	3657F/62-69-73	3732F/63-69-73	3787F/64-69-73
		3344**65-74-78	3448**75-85-87	3488**79-88-90	3512**82-92-93
38	3359	3473F/61-70-75	3699F/63-70-75	3775F/64-70-75	3787F/65-70-75
		3396**64-74-78	3518**75-85-87	3546**79-88-90	3573**82-92-94
36	3432	3509B/61-71-76	3744F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3464**62-73-77	3575**75-85-88	3604**79-89-91	3632**83-93-94
34	3500	3531B/61-71-76	3783F/64-71-76	3787F/64-71-76	3787F/65-71-76
		3515**61-73-77	3626**75-85-88	3659**79-89-91	3688**83-93-95
32	3526	3535B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3537**61-73-78	3650**75-85-88	3685**79-90-92	3715**83-93-95
30	3527	3553B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3543**62-74-78	3655**75-86-89	3690**80-90-92	3720**83-94-96
28	3528	3572B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3549**62-74-79	3661**76-87-89	3695**80-91-93	3725**84-94-96
26	3528	3592B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3554**63-75-79	3666**76-87-90	3700**81-91-93	3730**84-95-97
24	3529	3612B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3560**63-75-79	3672**77-88-90	3705**81-92-94	3734**85-96-97
22	3530	3630F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3565**64-76-80	3677**77-88-91	3710**82-92-94	3739**85-96-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 34L OEDF

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L
DAMMAM

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3531	3641F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3571**64-76-80	3683**78-89-91	3715**82-93-95	3744**86-97-98
18	3531	3651F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3576**65-77-81	3689**78-89-92	3720**83-93-95	3748**86-97-99
16	3532	3662F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3582**65-77-81	3694**79-90-92	3725**83-94-96	3753**87-98-99
14	3533	3672F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3587**66-78-82	3700**80-91-93	3731**84-95-96	3758**88-99-00
12	3534	3683F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3593**66-78-82	3705**80-91-93	3736**84-95-97	3763**88-99-00
10	3535	3694F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3599**67-79-83	3711**81-92-94	3741**85-96-97	3768**89-00-01
8	3535	3705F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3605**67-80-83	3716**81-92-94	3746**85-96-98	3773**89-00-02
6	3536	3716F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3611**68-80-84	3721**82-93-95	3750**86-97-99	3777**90-01-02
4	3536	3727F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3616**68-81-84	3726**82-94-95	3755**86-98-99	3779**90-01-03
2	3536	3738F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3622**69-81-85	3731**83-94-96	3760**87-98-00	3780**89-01-03
0	3537	3750F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3627**69-82-85	3737**83-95-97	3764**88-99-00	3780**89-01-03
-2	3537	3761F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3633**70-83-86	3741**84-96-97	3769**88-00-01	3780**89-01-03
-4	3537	3772F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3639**71-83-86	3746**85-96-98	3774**89-00-01	3781**90-01-03
-6	3537	3784F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3644**71-84-87	3750**85-97-98	3778**89-01-02	3781**90-01-03
-8	3537	3787F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3650**72-84-87	3755**86-97-99	3781**90-01-03	3781**90-01-03
-10	3537	3787F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3656**72-85-88	3760**86-98-00	3781**89-01-03	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
 34L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT RUNWAY 34R OEDF

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING FHAD INT, L
DAMMAM
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2949F/47-50-54	3137F/48-50-54	3202F/49-50-54	3267F/49-50-54
		2740**65-71-73	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2988F/49-51-55	3178F/50-51-55	3245F/50-51-55	3313F/50-51-55
		2790**65-72-73	2813**70-76-77	2813**70-76-77	2813**70-76-77
56A	2713	3032F/50-53-57	3225F/51-53-57	3293F/52-53-57	3364F/52-53-57
		2847**65-72-74	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	3078F/51-55-59	3273F/53-55-59	3344F/54-55-59	3422F/54-55-59
		2907**65-72-74	2950**73-80-81	2950**73-80-81	2950**74-80-81
52	2858	3127F/53-57-61	3328F/55-57-61	3400F/55-57-61	3509F/56-57-61
		2974**65-72-75	3032**75-83-84	3032**75-83-84	3032**76-83-84
50	2933	3175F/54-59-63	3381F/56-59-63	3490F/57-59-63	3563F/57-59-63
		3038**65-73-75	3105**76-84-85	3111**77-85-86	3111**77-85-86
48	3010	3223F/55-61-66	3455F/57-61-66	3542F/58-61-66	3615F/59-61-66
		3104**65-73-76	3174**76-84-86	3191**79-87-89	3191**79-87-89
46	3084	3269F/57-63-68	3519F/59-63-68	3591F/59-63-68	3665F/60-63-68
		3166**65-73-76	3241**76-84-86	3262**80-88-89	3271**81-90-91
44	3155	3315F/58-65-69	3566F/60-65-69	3640F/61-65-69	3715F/61-65-69
		3227**65-74-77	3308**76-84-86	3332**79-88-90	3354**83-92-93
42	3225	3362F/59-67-71	3614F/61-67-71	3688F/62-67-71	3764F/63-67-71
		3286**65-74-77	3373**76-85-87	3398**79-89-90	3428**83-92-93
40	3294	3407F/60-69-73	3660F/62-69-73	3735F/63-69-73	3787F/64-69-73
		3346**65-74-78	3449**75-85-87	3489**79-88-90	3513**82-92-93
38	3359	3478F/61-70-75	3702F/63-70-75	3778F/64-70-75	3787F/65-70-75
		3397**64-74-78	3519**75-85-87	3547**79-89-90	3574**82-92-94
36	3432	3507B/61-71-76	3746F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3464**62-73-77	3576**75-85-88	3605**79-89-91	3633**83-93-94
34	3500	3529B/61-71-76	3786F/64-71-76	3787F/64-71-76	3787F/65-71-76
		3516**61-73-77	3627**74-85-88	3660**79-89-91	3689**83-93-95
32	3526	3533B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3538**61-73-78	3651**74-85-88	3686**79-90-92	3716**83-93-95
30	3527	3552B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3544**61-74-78	3656**75-86-89	3691**80-90-92	3721**83-94-96
28	3528	3571B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3549**62-74-79	3661**75-87-89	3696**80-91-93	3726**84-95-96
26	3528	3591B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3555**62-75-79	3667**76-87-90	3701**81-91-93	3731**84-95-97
24	3529	3610B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3560**63-75-79	3672**77-88-90	3706**81-92-94	3735**85-96-97
22	3530	3630B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3566**63-76-80	3678**77-88-91	3711**82-92-94	3740**85-96-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 72 FT

RUNWAY 34R OEDF

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

KING FHAD INT, L
DAMMAM

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3531	3643F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3571**64-76-80	3683**78-89-91	3716**82-93-95	3745**86-97-98
18	3531	3654F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3577**64-77-81	3689**78-89-92	3721**83-94-95	3749**86-98-99
16	3532	3664F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3582**65-77-81	3695**79-90-92	3726**83-94-96	3754**87-98-00
14	3533	3675F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3588**65-78-82	3700**79-91-93	3732**84-95-96	3759**88-99-00
12	3534	3686F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3594**66-79-82	3706**80-91-93	3737**84-95-97	3764**88-99-01
10	3535	3697F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3600**66-79-83	3711**81-92-94	3742**85-96-98	3769**89-00-01
8	3535	3708F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3606**67-80-83	3717**81-93-95	3747**85-97-98	3774**89-01-02
6	3536	3719F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3611**68-80-84	3722**82-93-95	3751**86-97-99	3778**90-01-02
4	3536	3730F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3617**68-81-84	3727**82-94-96	3756**86-98-99	3779**90-01-03
2	3536	3741F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3622**69-81-85	3732**83-94-96	3761**87-98-00	3780**89-01-03
0	3537	3752F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3628**69-82-85	3738**83-95-97	3765**88-99-00	3780**89-01-03
-2	3537	3764F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3634**70-83-86	3742**84-96-97	3770**88-00-01	3780**89-01-03
-4	3537	3775F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3639**70-83-86	3747**85-96-98	3775**89-00-02	3781**89-01-03
-6	3537	3787F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3645**71-84-87	3751**85-97-98	3779**89-01-02	3781**90-01-03
-8	3537	3787F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3651**72-84-87	3756**86-98-99	3781**89-01-03	3781**90-01-03
-10	3537	3787F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3657**72-85-88	3760**86-98-00	3781**89-01-03	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16C OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2592	2620*/47-50-54	2683*/48-50-54	2602*/50-50-54	2617*/50-50-54
		2682**63-68-69	2758**68-74-75	2758**69-74-75	2758**69-74-75
58A	2649	2675*/49-51-55	2739*/50-51-55	2651*/51-51-55	2666*/51-51-55
		2734**63-67-69	2815**70-76-77	2815**70-76-77	2815**71-76-77
56A	2716	2738*/50-53-57	2804*/52-53-57	2825*/52-53-57	2846*/53-53-57
		2793**64-68-70	2881**73-78-79	2881**72-78-79	2881**72-78-79
54	2784	2801*/52-55-59	2871*/54-55-59	2893*/54-55-59	2914*/54-55-59
		2854**64-68-71	2946**74-79-80	2953**74-80-81	2953**74-80-81
52	2861	2871*/53-57-61	2944*/55-57-61	2967*/56-57-61	2989*/56-57-61
		2922**65-68-71	3018**74-79-81	3035**76-83-84	3035**76-83-84
50	2936	2939*/54-59-64	3014*/56-59-64	3038*/57-59-64	3061*/58-59-64
		2985**65-68-71	3085**74-80-81	3110**78-84-85	3114**78-85-86
48	3013	3013*/57-61-66	3086*/58-61-66	3111*/58-61-66	3135*/59-61-66
		3049**64-67-70	3152**74-80-82	3179**78-85-86	3194**79-88-89
46	3086	3086*/60-63-68	3155*/59-63-68	3180*/60-63-68	3205*/60-63-68
		3109**64-67-71	3218**74-80-82	3246**78-85-86	3271**81-89-90
44	3158	3158*/63-65-70	3222*/60-65-70	3248*/61-65-70	3274*/62-65-70
		3168**64-68-72	3282**74-80-83	3314**78-85-87	3343**81-90-91
42	3228	3224*/64-67-71	3287*/61-67-71	3316*/62-67-71	3343*/63-67-71
		3226**64-69-73	3345**74-81-83	3379**78-85-87	3409**81-90-91
40	3297	3281*/64-68-73	3353*/63-69-73	3383*/63-69-73	3411*/64-69-73
			3407**74-81-84	3460**77-85-87	3501**80-90-91
38	3362	3334*/64-69-74	3415*/64-70-75	3459*/64-70-75	3494*/65-70-75
			3489**74-81-84	3527**77-85-88	3561**81-90-92
36	3435	3390*/64-71-75	3497*/64-71-76	3526*/65-71-76	3555*/66-71-76
			3545**74-81-84	3584**77-86-88	3619**81-90-92
34	3503	3452B/64-71-76	3548*/64-72-76	3579*/65-72-76	3609*/66-72-76
			3597**74-82-85	3637**77-86-89	3674**81-91-93
32	3527	3480B/63-71-76	3572*/64-72-77	3603*/65-72-77	3633*/66-72-77
			3620**74-82-85	3661**77-87-89	3699**81-91-93
30	3528	3487B/64-71-76	3575*/64-72-77	3606*/65-72-77	3636*/66-72-77
			3626**74-82-86	3666**78-87-90	3704**81-92-94
28	3529	3492B/64-71-76	3578*/65-72-77	3609*/65-72-77	3639*/66-72-77
			3631**75-83-86	3672**78-88-90	3709**82-92-94
26	3530	3498B/65-71-76	3582*/65-72-77	3612*/65-72-77	3643*/66-72-77
			3636**75-84-86	3677**79-88-91	3714**82-93-95
24	3530	3503B/65-71-76	3585*/65-72-77	3616*/66-72-77	3646*/66-72-77
		3504**65-73-78	3642**76-84-87	3682**79-89-91	3719**83-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1360 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16C	15	301	0	113	1997	0	123	2968	0
	169	4040	0	547	22766	0	823	25238	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16C OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

22	3531	3508B/66-72-76	3588*/65-72-77	3619*/66-72-77	3649*/66-72-77
		3510**66-73-78	3647**76-85-87	3687**80-89-92	3724**83-94-96
20	3532	3513B/66-72-76	3591*/65-72-77	3622*/66-72-77	3652*/67-72-77
		3515**66-74-78	3653**77-85-88	3693**80-90-92	3729**84-95-96
18	3533	3519B/67-72-77	3594*/65-72-77	3625*/66-72-77	3655*/67-72-77
		3521**67-74-78	3658**77-86-88	3698**81-90-93	3734**85-95-97
16	3533	3524B/67-72-77	3597*/65-72-77	3628*/66-72-77	3658*/67-72-77
		3526**67-74-78	3663**78-86-89	3703**81-91-93	3739**85-96-97
14	3534	3529*/68-72-77	3601*/65-72-77	3631*/66-72-77	3661*/67-72-77
		3532**68-75-79	3668**78-87-89	3708**82-92-94	3744**86-96-98
12	3535	3534*/68-72-77	3604*/65-72-77	3634*/66-72-77	3664*/67-72-77
		3538**68-75-79	3674**79-87-90	3714**82-92-94	3749**86-97-98
10	3536	3536*/68-72-77	3607*/65-72-77	3637*/66-72-77	3667*/67-72-77
		3543**69-75-80	3679**79-88-90	3719**83-93-95	3754**87-98-99
8	3537	3537*/68-72-77	3610*/65-72-77	3641*/66-72-77	3670*/67-72-77
		3548**69-76-80	3685**80-88-91	3724**83-93-95	3759**87-98-00
6	3537	3537*/67-72-77	3613*/66-72-77	3644*/66-72-77	3673*/67-72-77
		3554**70-77-81	3691**80-89-91	3729**84-94-96	3764**88-99-00
4	3538	3538*/67-72-77	3616*/66-72-77	3646*/66-72-77	3676*/67-72-77
		3559**70-77-81	3696**81-90-92	3735**85-95-96	3768**88-99-01
2	3538	3538*/66-72-77	3619*/66-72-77	3649*/67-72-77	3678*/67-72-77
		3565**71-78-81	3701**81-90-92	3740**85-95-97	3773**89-00-01
0	3538	3538*/66-72-77	3621*/66-72-77	3651*/67-72-77	3681*/67-72-77
		3570**71-78-82	3706**82-91-93	3744**86-96-97	3778**90-01-02
-2	3538	3538*/65-72-77	3624*/66-72-77	3654*/67-72-77	3540*/72-72-77
		3575**72-79-82	3711**82-91-94	3749**86-96-98	3781**90-01-03
-4	3538	3538*/65-72-77	3626*/66-72-77	3656*/67-72-77	3544*/72-72-77
		3581**72-79-83	3716**83-92-94	3753**87-97-99	3782**90-02-03
-6	3539	3539*/64-72-77	3629*/66-72-77	3659*/67-72-77	3548*/72-72-77
		3586**73-79-83	3721**84-93-95	3758**87-98-99	3782**90-02-03
-8	3539	3539*/64-72-77	3631*/66-72-77	3661*/67-72-77	3551*/72-72-77
		3591**73-79-83	3726**84-93-95	3763**88-98-00	3783**90-02-03
-10	3539	3540*/64-72-77	3634*/66-72-77	3663*/67-72-77	3555*/72-72-77
		3597**74-80-83	3732**85-94-96	3767**89-99-00	3783**90-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16C	15	301	0	113	1997	0	123	2968	0
	169	4040	0	547	22766	0	823	25238	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16L OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2592	2610*/48-50-54	2665*/49-50-54	2681*/49-50-54	2698*/49-50-54
		2664**60-64-67	2752**68-73-74	2758**69-74-75	2758**69-74-75
58A	2649	2664*/49-51-55	2725*/50-51-55	2741*/51-51-55	2758*/51-51-55
		2715**62-66-68	2804**69-74-75	2815**70-76-77	2815**71-76-77
56A	2716	2726*/51-53-57	2792*/52-53-57	2809*/52-53-57	2826*/53-53-57
		2774**63-67-70	2865**70-75-76	2881**72-78-79	2881**72-78-79
54	2784	2789*/52-55-59	2860*/54-55-59	2878*/54-55-59	2895*/54-55-59
		2835**64-68-70	2930**71-76-77	2953**75-80-81	2953**74-80-81
52	2861	2861*/54-57-61	2933*/55-57-61	2953*/56-57-61	2970*/56-57-61
		2904**65-69-71	3001**72-77-78	3030**77-82-83	3035**76-83-84
50	2936	2936*/57-59-64	3003*/57-59-64	3026*/57-59-64	3044*/58-59-64
		2969**65-68-71	3071**73-77-79	3102**78-83-84	3114**78-85-86
48	3013	3013*/61-61-66	3074*/58-61-66	3100*/59-61-66	3122*/59-61-66
		3034**65-68-71	3142**74-78-80	3171**78-83-85	3194**81-88-89
46	3086	3081*/63-63-67	3142*/59-63-68	3169*/60-63-68	3194*/60-63-68
		3095**65-67-71	3207**74-79-81	3237**78-83-85	3263**81-88-89
44	3158	3146*/65-65-69	3209*/60-65-70	3236*/61-65-70	3262*/62-65-70
		3154**65-67-71	3270**74-79-81	3304**78-83-85	3334**81-88-89
42	3228	3209*/65-66-71	3273*/62-67-71	3302*/62-67-71	3331*/63-67-71
		3210**65-68-72	3333**74-79-82	3368**78-84-86	3399**81-88-90
40	3297	3265*/65-68-72	3338*/63-69-73	3369*/63-69-73	3398*/64-69-73
			3393**74-79-82	3442**78-84-86	3490**81-88-90
38	3362	3318*/65-69-74	3398*/64-70-75	3439*/64-70-75	3480*/65-70-75
			3470**74-79-82	3514**77-84-86	3549**81-88-90
36	3435	3373*/65-70-75	3480*/64-71-76	3512*/65-71-76	3542*/66-71-76
			3531**74-80-83	3570**77-84-87	3607**81-89-91
34	3503	3428*/64-71-76	3532*/64-72-76	3564*/65-72-76	3595*/66-72-76
			3582**74-80-83	3624**77-85-87	3662**81-89-91
32	3527	3459B/64-71-76	3556*/65-72-77	3588*/65-72-77	3619*/66-72-77
			3606**74-80-84	3648**78-85-88	3686**81-90-92
30	3528	3467B/65-71-76	3559*/65-72-77	3591*/66-72-77	3622*/66-72-77
			3611**75-81-84	3653**78-86-88	3692**82-90-92
28	3529	3474B/65-71-76	3563*/65-72-77	3594*/66-72-77	3625*/66-72-77
			3616**75-81-85	3658**79-86-89	3697**82-91-93
26	3530	3482*/65-71-76	3566*/65-72-77	3598*/66-72-77	3629*/66-72-77
			3621**76-82-85	3663**79-87-89	3701**83-91-93
24	3530	3488*/66-71-76	3569*/65-72-77	3601*/66-72-77	3632*/67-72-77
			3627**76-82-86	3668**80-87-90	3706**83-92-94
22	3531	3493*/66-71-76	3573*/65-72-77	3604*/66-72-77	3635*/67-72-77
			3632**77-83-86	3674**80-88-90	3712**84-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 590 FT
LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY
RUNWAY SLOPES ARE 0.14 PERCENT FOR TODA AND 0.14 PERCENT FOR ASDA
LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
16L 23 397 0 102 1686 0 335 7365 0
ENG-OUT PROCEDURE:
NONE

ELEVATION 48 FT

RUNWAY 16L OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3532	3498*/67-71-76	3576*/65-72-77	3607*/66-72-77	3638*/67-72-77
			3638**77-83-86	3679**81-88-91	3717**84-93-95
18	3533	3503*/67-71-76	3579*/65-72-77	3611*/66-72-77	3641*/67-72-77
		3504**67-73-78	3643**78-84-87	3684**81-89-91	3722**85-94-95
16	3533	3508*/68-72-76	3582*/65-72-77	3614*/66-72-77	3644*/67-72-77
		3510**68-73-78	3649**78-85-87	3690**82-89-92	3727**85-94-96
14	3534	3513*/68-72-76	3586*/65-72-77	3617*/66-72-77	3647*/67-72-77
		3515**68-73-78	3654**79-85-88	3695**82-90-92	3732**86-95-96
12	3535	3519*/69-72-77	3589*/65-72-77	3620*/66-72-77	3651*/67-72-77
		3521**69-74-78	3660**79-86-88	3701**83-91-93	3738**86-95-97
10	3536	3523*/69-72-77	3592*/66-72-77	3624*/66-72-77	3654*/67-72-77
		3527**69-74-78	3665**80-86-89	3706**83-91-93	3743**87-96-98
8	3537	3528*/70-72-77	3596*/66-72-77	3627*/66-72-77	3656*/67-72-77
		3532**70-75-79	3671**80-87-89	3711**84-92-94	3747**87-97-98
6	3537	3533*/70-72-77	3599*/66-72-77	3630*/67-72-77	3658*/67-72-77
		3537**70-75-79	3676**81-87-90	3717**84-92-94	3752**88-97-99
4	3538	3538*/71-72-77	3602*/66-72-77	3633*/67-72-77	3659*/67-72-77
		3543**71-76-80	3682**81-88-90	3722**85-93-95	3757**89-98-99
2	3538	3538*/70-72-77	3604*/66-72-77	3635*/67-72-77	3660*/67-72-77
		3548**71-76-80	3687**82-89-91	3727**85-94-95	3762**89-98-00
0	3538	3538*/70-72-77	3607*/66-72-77	3638*/67-72-77	3661*/68-72-77
		3553**72-77-81	3693**82-89-91	3732**86-94-96	3766**90-99-00
-2	3538	3538*/69-72-77	3610*/66-72-77	3640*/67-72-77	3662*/68-72-77
		3559**72-77-81	3698**83-90-92	3737**86-95-96	3771**90-00-01
-4	3538	3538*/69-72-77	3612*/66-72-77	3641*/67-72-77	3663*/68-72-77
		3564**73-78-82	3703**83-90-93	3742**87-95-97	3776**91-00-02
-6	3539	3539*/68-72-77	3615*/66-72-77	3641*/67-72-77	3664*/68-72-77
		3569**73-78-82	3708**84-91-93	3747**88-96-98	3780**92-01-02
-8	3539	3539*/68-72-77	3618*/66-72-77	3642*/67-72-77	3665*/68-72-77
		3575**74-79-82	3713**84-92-94	3751**88-97-98	3783**92-02-03
-10	3539	3539*/67-72-77	3620*/66-72-77	3643*/67-72-77	3665*/68-72-77
		3580**74-79-83	3718**85-92-94	3756**89-97-99	3783**91-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 590 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.14 PERCENT FOR TODA AND 0.14 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16L	23	397	0	102	1686	0	335	7365	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16R OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2592	2579*/49-49-53	2642*/48-50-54	2664*/49-50-54	2685*/49-50-54
		2617**58-62-65	2708**64-69-71	2738**66-70-72	2758**69-74-75
58A	2649	2632*/51-51-55	2697*/50-51-55	2719*/50-51-55	2741*/51-51-55
		2668**60-64-66	2759**65-70-72	2790**72-72-73	2815**71-76-77
56A	2716	2694*/53-53-57	2761*/52-53-57	2784*/52-53-57	2806*/52-53-57
		2726**60-64-67	2819**66-71-73	2850**68-73-74	2878**72-78-79
54	2784	2757*/54-54-59	2826*/53-55-59	2850*/54-55-59	2873*/54-55-59
		2786**61-65-68	2882**67-71-73	2913**70-74-76	2943**73-78-80
52	2861	2827*/56-56-61	2897*/55-57-61	2922*/55-57-61	2946*/56-57-61
		2854**62-66-69	2952**69-73-75	2985**71-75-77	3016**74-79-81
50	2936	2896*/58-58-62	2966*/56-59-64	2992*/57-59-64	3017*/57-59-64
		2917**62-66-69	3021**70-75-77	3054**72-77-79	3087**75-80-82
48	3013	2966*/60-60-64	3037*/58-61-66	3063*/58-61-66	3089*/59-61-66
		2982**62-65-69	3090**72-76-78	3124**74-78-80	3158**76-81-83
46	3086	3032*/62-62-66	3103*/59-63-68	3131*/60-63-68	3158*/60-63-68
		3042**62-64-69	3156**72-76-78	3192**75-79-81	3227**77-82-84
44	3158	3097*/62-63-68	3168*/60-65-70	3197*/61-65-70	3224*/62-65-70
		3099**62-65-69	3220**72-75-78	3258**75-79-81	3296**78-83-85
42	3228	3155*/62-65-70	3232*/61-67-71	3261*/62-67-71	3290*/63-67-71
			3280**72-75-78	3322**75-78-81	3360**78-83-85
40	3297	3210*/62-66-71	3297*/63-69-73	3325*/63-69-73	3356*/64-69-73
			3341**72-74-78	3384**75-78-81	3431**75-80-83
38	3362	3259*/62-67-72	3362*/65-70-75	3385*/64-70-75	3420*/65-70-75
			3396**72-74-78	3456**75-78-81	3506**78-83-85
36	3435	3312*/62-68-74	3435*/67-71-76	3462*/65-71-76	3500*/65-71-76
			3472**72-75-79	3521**75-79-82	3563**78-83-86
34	3503	3360*/62-69-75	3503*/67-72-76	3519*/65-72-76	3551*/65-72-76
			3526**71-75-79	3572**75-79-82	3616**78-84-86
32	3527	3382*/62-70-75	3527*/68-72-77	3543*/65-72-77	3575*/66-72-77
			3549**72-75-79	3595**75-79-83	3639**79-84-87
30	3528	3387*/63-70-75	3528*/67-72-77	3546*/65-72-77	3579*/66-72-77
			3554**72-76-80	3601**76-80-83	3645**79-85-87
28	3529	3393*/63-70-76	3529*/67-72-77	3550*/65-72-77	3582*/66-72-77
			3559**73-76-80	3606**76-80-84	3650**79-85-88
26	3530	3398*/64-70-76	3530*/67-72-77	3553*/65-72-77	3585*/66-72-77
			3565**73-77-81	3612**76-81-84	3655**80-86-88
24	3530	3404*/64-71-76	3530*/66-72-77	3556*/65-72-77	3589*/66-72-77
			3570**74-77-81	3617**77-81-85	3661**80-86-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 720 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	18	300	0	124	1886	0	223	5172	0
	434	13471	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 16R OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

22	3531	3410*/65-71-76	3531*/66-72-77	3560*/66-72-77	3592*/66-72-77
			3576**74-78-82	3622**77-82-85	3666**81-87-89
20	3532	3417*/65-71-76	3532*/65-72-77	3563*/66-72-77	3595*/66-72-77
			3581**75-78-82	3628**78-82-86	3671**81-87-90
18	3533	3426*/65-71-76	3533*/65-72-77	3566*/66-72-77	3598*/66-72-77
			3587**75-79-82	3633**78-83-86	3677**82-88-90
16	3533	3434*/66-71-76	3537*/65-72-77	3569*/66-72-77	3601*/67-72-77
			3592**75-79-83	3639**79-84-86	3682**82-88-91
14	3534	3441*/66-71-76	3540*/65-72-77	3573*/66-72-77	3605*/67-72-77
			3598**76-80-83	3645**79-84-87	3688**83-89-91
12	3535	3449*/66-71-76	3544*/65-72-77	3576*/66-72-77	3608*/67-72-77
			3604**76-79-83	3651**80-85-87	3694**83-90-92
10	3536	3457*/67-71-76	3547*/65-72-77	3580*/66-72-77	3611*/67-72-77
			3610**77-80-83	3657**80-85-88	3699**84-90-92
8	3537	3464*/67-71-76	3550*/65-72-77	3583*/66-72-77	3615*/67-72-77
		3465**67-72-77	3615**77-81-84	3662**81-86-88	3705**85-91-93
6	3537	3471*/68-71-76	3554*/65-72-77	3586*/66-72-77	3618*/67-72-77
		3473**68-72-77	3621**78-81-84	3668**81-86-89	3710**85-91-93
4	3538	3477*/68-71-76	3557*/65-72-77	3589*/66-72-77	3621*/67-72-77
		3480**68-73-77	3627**78-82-85	3673**82-87-90	3715**86-92-94
2	3538	3483*/69-71-76	3560*/66-72-77	3592*/66-72-77	3623*/67-72-77
		3487**69-73-78	3632**79-82-85	3678**83-88-90	3720**86-93-95
0	3538	3488*/69-71-76	3563*/66-72-77	3595*/66-72-77	3626*/67-72-77
		3492**69-73-78	3638**79-83-86	3684**83-88-91	3725**87-93-95
-2	3538	3493*/70-71-76	3565*/66-72-77	3597*/67-72-77	3629*/67-72-77
		3497**69-74-78	3643**80-84-87	3689**84-89-91	3731**87-94-96
-4	3538	3497*/70-71-76	3568*/66-72-77	3600*/67-72-77	3631*/67-72-77
		3502**70-75-79	3649**81-84-87	3695**84-89-92	3736**88-95-96
-6	3539	3500*/71-71-76	3571*/66-72-77	3603*/67-72-77	3634*/68-72-77
		3508**71-75-79	3655**81-85-88	3700**85-90-92	3741**88-95-97
-8	3539	3503*/71-71-76	3573*/66-72-77	3605*/67-72-77	3637*/68-72-77
		3513**71-76-80	3660**82-85-88	3706**85-91-93	3746**89-96-98
-10	3539	3506*/72-72-76	3576*/66-72-77	3608*/67-72-77	3639*/68-72-77
		3518**72-76-80	3666**82-86-89	3711**86-91-93	3751**90-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 720 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	18	300	0	124	1886	0	223	5172	0
	434	13471	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34C OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2592	2929F/47-50-54	3117F/48-50-54	3182F/49-50-54	3247F/49-50-54
		2735**63-70-71	2758**68-74-75	2758**69-74-75	2758**69-74-75
58A	2649	2968F/49-51-55	3157F/50-51-55	3223F/50-51-55	3291F/51-51-55
		2785**63-70-72	2815**70-76-77	2815**70-76-77	2815**71-76-77
56A	2716	3012F/50-53-57	3204F/52-53-57	3271F/52-53-57	3341F/52-53-57
		2842**63-71-72	2881**71-78-79	2881**72-78-79	2881**72-78-79
54	2784	3057F/52-55-59	3251F/53-55-59	3321F/54-55-59	3394F/54-55-59
		2902**63-71-73	2953**73-80-81	2953**73-80-81	2953**74-80-81
52	2861	3107F/53-57-61	3305F/55-57-61	3377F/55-57-61	3487F/56-57-61
		2968**63-71-73	3032**74-82-83	3035**75-83-84	3035**76-83-84
50	2936	3155F/54-59-64	3359F/56-59-64	3450F/57-59-64	3540F/57-59-64
		3032**63-72-74	3100**74-82-84	3114**77-85-86	3114**77-85-86
48	3013	3203F/56-61-66	3413F/58-61-66	3520F/58-61-66	3593F/59-61-66
		3097**63-72-75	3169**74-83-84	3189**77-87-88	3194**79-88-89
46	3086	3248F/57-63-68	3497F/59-63-68	3569F/60-63-68	3643F/60-63-68
		3159**63-72-75	3235**74-83-85	3257**77-87-88	3274**81-90-91
44	3158	3294F/58-65-70	3545F/60-65-70	3617F/61-65-70	3692F/61-65-70
		3220**63-72-76	3302**74-83-85	3327**77-87-88	3349**81-91-92
42	3228	3341F/59-67-71	3592F/61-67-71	3666F/62-67-71	3741F/63-67-71
		3278**63-73-76	3366**74-84-86	3392**77-87-89	3420**81-91-92
40	3297	3386F/60-69-73	3638F/62-69-73	3713F/63-69-73	3787F/64-69-73
		3338**63-73-77	3439**73-84-86	3480**77-87-89	3507**80-91-92
38	3362	3441F/61-70-75	3680F/63-70-75	3756F/64-70-75	3787F/65-70-75
		3393**63-73-77	3512**73-84-86	3541**77-87-89	3568**80-91-93
36	3435	3504F/61-71-76	3725F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3467**62-73-77	3569**73-84-87	3599**77-88-90	3627**81-92-93
34	3503	3531B/61-72-76	3764F/64-72-76	3787F/65-72-76	3787F/65-72-76
		3518**61-73-77	3622**73-84-87	3653**77-88-90	3683**81-92-94
32	3527	3536B/61-72-77	3786F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3539**61-73-78	3646**73-85-88	3677**77-89-91	3708**81-92-94
30	3528	3555B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3545**62-74-78	3651**74-85-88	3683**78-89-91	3712**81-93-95
28	3529	3574B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3550**62-74-79	3656**74-86-88	3688**78-90-92	3717**82-93-95
26	3530	3591F/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3556**63-75-79	3661**75-86-89	3693**79-90-92	3722**82-94-96
24	3530	3601F/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3561**63-75-79	3666**75-87-89	3698**79-91-93	3727**83-94-96
22	3531	3612F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3567**64-76-80	3671**76-87-90	3703**80-91-93	3733**83-95-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34C NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34C OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3532	3622F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3572**64-76-80	3677**76-88-90	3708**80-92-94	3737**84-96-97
18	3533	3632F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3578**65-77-81	3682**77-89-91	3713**81-92-94	3742**84-96-98
16	3533	3643F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3583**65-77-81	3687**77-89-91	3718**81-93-95	3746**85-97-98
14	3534	3653F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3589**66-78-82	3693**78-90-92	3723**82-94-95	3751**86-97-99
12	3535	3664F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3595**66-79-82	3698**78-90-92	3729**82-94-96	3756**86-98-99
10	3536	3675F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3601**67-79-83	3704**79-91-93	3734**83-95-96	3761**87-99-00
8	3537	3686F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3607**67-80-83	3709**79-91-93	3739**83-95-97	3766**87-99-01
6	3537	3697F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3613**68-80-84	3714**80-92-94	3744**84-96-97	3771**88-00-01
4	3538	3708F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3618**68-81-84	3719**80-93-94	3748**84-97-98	3776**88-01-02
2	3538	3719F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3624**69-81-85	3724**81-93-95	3753**85-97-99	3780**89-01-02
0	3538	3730F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3629**69-82-85	3729**81-94-96	3758**85-98-99	3782**89-01-03
-2	3538	3741F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3635**70-83-86	3734**82-94-96	3762**86-98-00	3782**90-02-03
-4	3538	3752F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3640**71-83-86	3739**83-95-97	3767**87-99-00	3782**90-02-03
-6	3539	3764F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3646**71-84-87	3744**83-96-97	3771**87-00-01	3782**90-02-03
-8	3539	3775F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3651**72-84-87	3748**84-96-98	3776**88-00-02	3783**90-02-03
-10	3539	3787F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/68-72-77
		3657**72-85-88	3753**84-97-98	3780**88-01-02	3783**90-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.06 PERCENT FOR TODA AND -0.06 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
34C NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34L OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2592	2699*/47-50-54	2784*/48-50-54	2812*/49-50-54	2838*/49-50-54
		2703**60-64-66	2758**68-74-75	2758**69-74-75	2758**69-74-75
58A	2649	2750*/49-51-55	2838*/50-51-55	2866*/50-51-55	2894*/51-51-55
		2751**60-65-67	2815**70-76-77	2815**70-76-77	2815**71-76-77
56A	2716	2809*/50-53-57	2901*/52-53-57	2930*/52-53-57	2958*/52-53-57
		2808**60-65-67	2873**70-77-78	2881**72-78-79	2881**72-78-79
54	2784	2866*/52-55-59	2965*/53-55-59	2995*/54-55-59	3024*/54-55-59
		2865**60-65-68	2936**70-77-78	2953**73-80-81	2953**74-80-81
52	2861	2930*/53-57-61	3032*/55-57-61	3064*/55-57-61	3095*/56-57-61
		2929**60-66-69	3005**71-77-79	3026**74-81-82	3035**76-83-84
50	2936	2991*/54-59-64	3097*/56-59-64	3131*/57-59-64	3164*/57-59-64
		2991**60-66-69	3071**71-77-79	3094**74-81-83	3114**78-85-86
48	3013	3053*/56-61-66	3163*/58-61-66	3198*/58-61-66	3232*/59-61-66
		3055**60-66-70	3138**71-78-80	3162**74-82-83	3183**78-86-87
46	3086	3111*/57-63-68	3225*/59-63-68	3261*/60-63-68	3298*/60-63-68
		3115**60-67-70	3203**71-78-80	3229**74-82-84	3252**78-86-87
44	3158	3167*/58-65-70	3286*/60-65-70	3326*/61-65-70	3365*/62-65-70
		3174**60-67-71	3266**71-78-81	3294**74-82-84	3321**78-86-88
42	3228	3228*/60-67-71	3348*/61-67-71	3389*/62-67-71	3446*/63-67-71
		3231**60-67-72	3328**71-79-81	3358**74-82-85	3386**78-86-88
40	3297	3280*/60-68-73	3408*/62-69-73	3485*/63-69-73	3525*/64-69-73
			3389**71-79-82	3427**74-83-85	3471**77-86-88
38	3362	3323*/61-69-74	3498*/63-70-75	3539*/64-70-75	3580*/65-70-75
			3464**70-79-82	3503**74-83-85	3534**77-86-89
36	3435	3370*/61-70-75	3548*/64-71-76	3591*/65-71-76	3633*/65-71-76
			3527**70-79-82	3560**74-83-86	3592**77-87-89
34	3503	3410*/61-71-76	3589*/64-72-76	3633*/65-72-76	3676*/65-72-76
			3578**70-79-83	3613**74-83-86	3646**78-87-90
32	3527	3445*/61-71-76	3612*/64-72-77	3656*/65-72-77	3700*/66-72-77
			3602**70-80-83	3637**74-84-87	3670**78-88-90
30	3528	3460*/61-71-76	3618*/64-72-77	3662*/65-72-77	3706*/66-72-77
			3607**71-80-84	3642**75-84-87	3675**78-88-91
28	3529	3474*/61-71-76	3624*/64-72-77	3668*/65-72-77	3712*/66-72-77
			3612**71-81-84	3647**75-85-88	3681**79-89-91
26	3530	3488*/61-71-76	3630*/65-72-77	3674*/65-72-77	3718*/66-72-77
			3617**72-81-85	3652**76-85-88	3686**79-89-92
24	3530	3496*/62-71-76	3636*/65-72-77	3680*/65-72-77	3724*/66-72-77
			3623**72-82-85	3658**76-86-89	3691**80-90-92
22	3531	3505*/62-72-76	3642*/65-72-77	3686*/66-72-77	3730*/66-72-77
			3628**73-82-86	3663**77-86-89	3696**80-90-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34L	18	295	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34L OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3532	3514*/62-72-76	3648*/65-72-77	3692*/66-72-77	3736*/66-72-77
			3633**73-83-86	3668**77-87-89	3701**81-91-93
18	3533	3522*/63-72-77	3654*/65-72-77	3698*/66-72-77	3742*/66-72-77
			3639**74-84-86	3673**77-88-90	3706**81-92-94
16	3533	3531*/63-72-77	3660*/65-72-77	3704*/66-72-77	3748*/67-72-77
			3644**74-84-87	3679**78-88-90	3711**82-92-94
14	3534	3534*/63-72-77	3666*/65-72-77	3710*/66-72-77	3754*/67-72-77
		3538**64-73-77	3650**75-85-87	3684**78-89-91	3717**82-93-95
12	3535	3535*/62-72-77	3672*/65-72-77	3716*/66-72-77	3760*/67-72-77
		3543**64-73-78	3656**75-85-88	3690**79-89-91	3722**83-93-95
10	3536	3541*/63-72-77	3678*/65-72-77	3723*/66-72-77	3766*/67-72-77
		3549**64-74-78	3661**76-86-88	3695**80-90-92	3727**83-94-96
8	3537	3548*/63-72-77	3685*/65-72-77	3729*/66-72-77	3772*/67-72-77
		3555**65-74-79	3666**76-86-89	3701**80-90-93	3733**84-94-96
6	3537	3554*/63-72-77	3691*/65-72-77	3735*/66-72-77	3778*/67-72-77
		3561**65-75-79	3672**77-87-89	3706**81-91-93	3738**84-95-97
4	3538	3560*/63-72-77	3696*/65-72-77	3740*/66-72-77	3783*/67-72-77
		3566**66-75-79	3677**77-87-90	3711**81-92-94	3743**85-96-97
2	3538	3566*/63-72-77	3702*/66-72-77	3746*/66-72-77	3787F/67-72-77
		3571**66-76-80	3682**78-88-90	3716**82-92-94	3747**86-96-98
0	3538	3572*/63-72-77	3708*/66-72-77	3752*/66-72-77	3787F/67-72-77
		3577**67-76-80	3688**78-89-91	3721**82-93-95	3752**86-97-98
-2	3538	3578*/63-72-77	3714*/66-72-77	3757*/67-72-77	3787F/67-72-77
		3582**67-77-81	3693**79-89-92	3726**83-93-95	3757**87-98-99
-4	3538	3584*/63-72-77	3719*/66-72-77	3763*/67-72-77	3787F/67-72-77
		3587**68-77-81	3698**79-90-92	3731**83-94-96	3761**87-98-00
-6	3539	3590*/63-72-77	3725*/66-72-77	3768*/67-72-77	3787F/68-72-77
		3593**68-78-82	3703**80-90-93	3736**84-95-96	3766**88-99-00
-8	3539	3596*/63-72-77	3731*/66-72-77	3774*/67-72-77	3787F/68-72-77
		3598**69-79-82	3708**80-91-93	3741**84-95-97	3771**88-00-01
-10	3539	3602*/63-72-77	3736*/66-72-77	3779*/67-72-77	3787F/68-72-77
		3603**69-79-83	3713**81-92-94	3746**85-96-98	3775**89-00-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34L	18	295	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34R OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2592	2780*/48-50-54	2860*/49-50-54	2863*/49-50-54	2592*/49-50-54
		2737**63-70-72	2758**68-74-75	2758**69-74-75	2758**69-74-75
58A	2649	2833*/50-51-55	2916*/50-51-55	2933*/50-51-55	2933*/50-51-55
		2786**63-71-72	2815**70-76-77	2815**70-76-77	2815**70-76-77
56A	2716	2895*/52-53-57	2981*/52-53-57	3003*/52-53-57	3004*/52-53-57
		2843**63-71-73	2881**72-78-79	2881**72-78-79	2881**72-78-79
54	2784	2958*/54-55-59	3046*/54-55-59	3074*/54-55-59	3075*/54-55-59
		2904**63-71-73	2953**74-80-81	2953**74-80-81	2953**74-80-81
52	2861	3028*/56-57-61	3119*/56-57-61	3148*/56-57-61	3155*/56-57-61
		2970**63-71-74	3033**74-82-84	3035**77-83-84	3035**77-83-84
50	2936	3096*/57-59-64	3189*/58-59-64	3220*/58-59-64	3236*/58-59-64
		3034**63-72-74	3102**74-83-84	3114**77-85-86	3114**79-85-86
48	3013	3165*/59-61-66	3261*/60-61-66	3293*/60-61-66	3324*/60-61-66
		3099**63-72-75	3171**74-83-85	3190**78-87-88	3194**81-88-89
46	3086	3231*/61-63-68	3333*/62-63-68	3367*/62-63-68	3400*/62-63-68
		3161**63-72-75	3237**74-83-85	3259**77-87-88	3274**81-90-91
44	3158	3297*/63-65-70	3403*/64-65-70	3462*/64-65-70	3498*/64-65-70
		3222**63-73-76	3304**74-83-85	3329**77-87-89	3351**81-91-92
42	3228	3346F/64-67-71	3507*/65-67-71	3540*/65-67-71	3573*/66-67-71
		3281**63-73-77	3368**74-84-86	3394**77-88-89	3422**81-91-93
40	3297	3391F/64-69-73	3572*/67-69-73	3606*/67-69-73	3640*/67-69-73
		3340**63-73-77	3442**73-84-86	3483**77-87-89	3509**80-91-92
38	3362	3421B/63-70-75	3631*/68-70-75	3666*/68-70-75	3700*/69-70-75
		3395**63-74-78	3514**73-84-86	3543**77-88-90	3570**80-91-93
36	3435	3453B/63-71-76	3688*/69-71-76	3724*/70-71-76	3760*/70-71-76
		3469**62-73-78	3571**73-84-87	3601**77-88-90	3629**81-92-94
34	3503	3521B/61-72-76	3734*/70-72-76	3772*/70-72-76	3787F/70-72-76
		3519**61-73-78	3624**73-85-87	3655**77-88-91	3685**81-92-94
32	3527	3534B/61-72-77	3760*/70-72-77	3787F/70-72-77	3787F/71-72-77
		3540**61-73-78	3648**73-85-88	3680**77-89-91	3710**81-93-94
30	3528	3546B/61-72-77	3765*/70-72-77	3787F/71-72-77	3787F/71-72-77
		3546**61-74-78	3653**74-86-88	3685**78-89-92	3715**81-93-95
28	3529	3547B/62-72-77	3771*/70-72-77	3787F/71-72-77	3787F/71-72-77
		3551**62-74-79	3658**74-86-89	3690**78-90-92	3720**82-94-95
26	3530	3548B/63-72-77	3777*/70-72-77	3787F/71-72-77	3787F/71-72-77
		3557**62-75-79	3663**75-87-89	3695**79-90-93	3725**82-94-96
24	3530	3548B/63-72-77	3782*/71-72-77	3787F/71-72-77	3787F/71-72-77
		3562**63-75-80	3669**75-87-90	3700**79-91-93	3730**83-95-96
22	3531	3549B/64-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3568**63-76-80	3674**76-88-90	3705**80-92-94	3734**83-95-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 460 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.14 PERCENT FOR TODA AND -0.14 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34R	13	307	0	276	18484	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 48 FT

RUNWAY 34R OEJN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF KING ABDULAZIZ INT
JEDDAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3532	3550B/64-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3573**64-77-80	3679**76-88-91	3710**80-92-94	3739**84-96-98
18	3533	3550B/65-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3579**64-77-81	3684**77-89-91	3715**81-93-95	3744**84-97-98
16	3533	3551B/66-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3584**65-78-81	3690**77-89-92	3720**81-93-95	3748**85-97-99
14	3534	3552B/66-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3590**65-78-82	3695**78-90-92	3725**82-94-96	3753**86-98-99
12	3535	3553B/67-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3596**66-79-82	3701**78-90-93	3731**82-94-96	3758**86-98-00
10	3536	3555B/68-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3602**66-79-83	3706**79-91-93	3736**83-95-97	3763**87-99-00
8	3537	3556B/68-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3608**67-80-83	3711**79-92-94	3741**83-96-97	3768**87-00-01
6	3537	3557B/69-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3614**67-80-84	3716**80-92-94	3746**84-96-98	3773**88-00-01
4	3538	3558B/70-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3619**68-81-84	3721**80-93-95	3750**84-97-98	3777**88-01-02
2	3538	3560B/70-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3625**69-82-85	3726**81-93-95	3755**85-97-99	3781**89-01-03
0	3538	3581B/71-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3630**69-82-85	3731**81-94-96	3760**85-98-99	3782**89-01-03
-2	3538	3605B/71-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3636**70-83-86	3736**82-95-96	3764**86-99-00	3782**90-02-03
-4	3538	3630B/71-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3642**70-83-86	3741**82-95-97	3769**87-99-01	3782**91-02-03
-6	3539	3655B/71-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3647**71-84-87	3746**83-96-98	3773**87-00-01	3782**91-02-03
-8	3539	3680B/71-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3653**71-85-87	3750**84-97-98	3778**88-01-02	3783**92-02-03
-10	3539	3705B/71-72-77	3787F/71-72-77	3787F/71-72-77	3787F/71-72-77
		3659**72-85-88	3755**84-97-99	3782**88-01-02	3783**93-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 460 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.14 PERCENT FOR TODA AND -0.14 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34R	13	307	0	276	18484	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 2151 FT

RUNWAY 17

OEMA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2396	2458*/43-44-48	2496*/43-44-48	2509*/44-44-48	2521*/44-44-48
		2537**60-65-67	2550**62-68-69	2550**62-68-69	2550**62-68-69
58A	2448	2517*/44-46-50	2555*/45-46-50	2568*/45-46-50	2581*/45-46-50
		2585**60-66-67	2603**64-70-71	2603**64-70-71	2603**64-70-71
56A	2510	2579*/46-47-51	2618*/46-47-51	2631*/47-47-51	2644*/47-47-51
		2641**61-67-68	2665**66-72-73	2665**66-72-73	2665**66-72-73
54A	2571	2638*/48-49-53	2678*/48-49-53	2691*/48-49-53	2704*/49-49-53
		2698**62-67-69	2730**67-74-75	2730**68-74-75	2730**68-74-75
52A	2629	2695*/49-51-55	2735*/50-51-55	2748*/50-51-55	2761*/50-51-55
		2753**68-68-70	2792**69-76-77	2792**69-76-77	2792**70-76-77
50	2686	2752*/51-52-57	2792*/51-52-57	2806*/51-52-57	2819*/52-52-57
		2807**64-69-71	2853**71-77-79	2853**71-77-79	2853**71-77-79
48	2753	2820*/52-54-58	2861*/53-54-58	2875*/53-54-58	2889*/53-54-58
		2868**65-70-72	2921**73-79-80	2924**73-80-81	2924**73-80-81
46	2825	2891*/54-56-61	2933*/55-56-61	2947*/55-56-61	2961*/55-56-61
		2932**65-70-72	2988**73-79-81	3003**76-82-83	3003**76-82-83
44	2898	2961*/56-58-63	3004*/57-58-63	3019*/57-58-63	3033*/57-58-63
		2995**66-70-73	3056**74-80-81	3082**78-84-85	3082**78-84-85
42	2965	3030*/58-60-64	3074*/58-60-64	3088*/59-60-64	3103*/59-60-64
		3051**66-71-73	3117**74-80-82	3155**80-87-88	3155**80-87-88
40	3031	3094*/60-62-66	3139*/60-62-66	3154*/60-62-66	3168*/61-62-66
		3107**65-71-74	3176**75-80-82	3224**81-88-90	3225**82-89-90
38	3094	3155*/61-63-68	3200*/62-63-68	3215*/62-63-68	3230*/62-63-68
		3156**64-71-74	3235**76-81-83	3285**81-89-90	3297**84-91-92
36	3155	3204B/63-65-70	3260*/63-65-70	3276*/63-65-70	3291*/64-65-70
		3202**63-70-74	3289**76-81-83	3339**80-88-90	3364**84-92-93
34	3212	3217B/63-67-71	3318*/65-67-71	3334*/65-67-71	3350*/65-67-71
		3246**62-70-74	3344**74-82-84	3391**79-88-89	3428**83-92-93
32	3269	3273B/61-68-73	3374*/66-68-73	3390*/66-68-73	3406*/66-68-73
		3288**61-70-74	3398**73-82-85	3458**77-87-89	3499**81-92-93
30	3316	3320B/60-69-74	3421*/67-69-74	3442*/67-69-74	3461*/67-69-74
		3325**60-70-74	3464**72-83-85	3507**76-87-89	3540**81-91-93
28	3364	3362B/59-70-75	3469*/68-70-75	3487*/68-70-75	3503*/69-70-75
			3508**71-83-85	3544**76-87-89	3579**80-92-93
26	3367	3370*/60-70-75	3472*/68-70-75	3489*/68-70-75	3506*/69-70-75
		3369**60-71-75	3514**72-83-86	3551**76-88-90	3585**80-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1610 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.50 PERCENT FOR TODA AND -0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17	16	332	0	70	974	0	216	5608	0
	242	5925	0	292	7481	0	318	9218	0
	474	13271	0	579	15711	0	680	21208	0
	779	23146	0	844	24718	0	999	27442	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 17 BASED ON A 15 DEGREE BANKED

CLIMBING -LEFT- TURN, COMMENCED AT D2.0 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA VOR R-130

ELEVATION 2151 FT

RUNWAY 17

OEMA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3367	3372B/60-70-75	3472*/68-70-75	3489*/68-70-75	3506*/69-70-75
		3374**60-71-76	3519**72-84-86	3556**77-88-90	3590**81-93-94
22	3367	3372B/61-70-75	3472*/68-70-75	3489*/68-70-75	3505*/69-70-75
		3379**61-72-76	3524**73-84-87	3560**77-89-91	3594**82-93-95
20	3367	3372B/62-70-75	3471*/68-70-75	3489*/69-70-75	3505*/69-70-75
		3385**61-72-76	3529**73-85-87	3565**78-89-91	3598**82-94-95
18	3367	3372B/62-70-75	3471*/68-70-75	3489*/69-70-75	3505*/69-70-75
		3390**62-73-77	3534**74-85-88	3570**78-90-92	3603**83-95-96
16	3368	3372B/63-70-75	3471*/68-70-75	3489*/69-70-75	3505*/69-70-75
		3395**62-73-77	3540**74-86-88	3575**79-91-92	3608**84-95-97
14	3368	3372B/64-70-75	3471*/68-70-75	3489*/69-70-75	3505*/69-70-75
		3401**63-74-78	3545**75-87-89	3580**80-91-93	3613**84-96-97
12	3368	3373B/64-70-75	3471*/68-70-75	3489*/69-70-75	3505*/69-70-75
		3406**63-74-78	3549**76-87-89	3585**80-92-93	3617**85-97-98
10	3368	3373B/65-70-75	3471*/68-70-75	3489*/69-70-75	3505*/69-70-75
		3412**64-75-79	3555**76-88-90	3590**81-93-94	3621**85-97-98
8	3369	3373B/66-70-75	3471*/69-70-75	3489*/69-70-75	3505*/69-70-75
		3421**64-75-79	3560**77-89-90	3594**81-93-95	3621**86-97-98
6	3369	3374B/66-70-75	3471*/69-70-75	3489*/69-70-75	3505*/69-70-75
		3429**65-76-79	3565**77-89-91	3599**82-94-95	3622**87-97-98
4	3369	3374B/67-70-75	3471*/69-70-75	3489*/69-70-75	3505*/69-70-75
		3437**65-76-80	3570**78-90-92	3604**83-95-96	3622**88-97-98
2	3370	3375B/68-70-75	3471*/69-70-75	3489*/69-70-75	3505*/69-70-75
		3445**66-77-80	3576**79-90-92	3609**83-95-97	3622**89-97-98
0	3370	3389B/68-70-75	3470*/69-70-75	3488*/69-70-75	3505*/69-70-75
		3453**66-77-81	3581**79-91-93	3614**84-96-97	3622**89-97-98
-2	3370	3409*/68-70-75	3470*/69-70-75	3488*/69-70-75	3505*/69-70-75
		3460**67-78-81	3586**80-92-93	3619**85-97-98	3623**90-97-98
-4	3370	3408*/68-70-75	3470*/69-70-75	3488*/69-70-75	3505*/69-70-75
		3468**67-78-82	3590**81-92-94	3623**85-97-98	3623**90-97-98
-6	3370	3408*/68-70-75	3469*/69-70-75	3487*/69-70-75	3504*/69-70-75
		3476**68-79-82	3595**81-93-95	3623**86-97-98	3623**90-97-98
-8	3370	3407*/68-70-75	3469*/69-70-75	3487*/69-70-75	3504*/69-70-75
		3484**68-80-82	3600**82-94-95	3623**87-97-98	3623**90-97-98
-10	3370	3407*/68-70-75	3468*/69-70-75	3486*/69-70-75	3503*/69-70-75
		3490**69-80-83	3605**83-95-96	3623**88-97-98	3623**90-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1630 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.50 PERCENT FOR TODA AND -0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17	16	332	0	70	974	0	216	5608	0
	242	5925	0	292	7481	0	318	9218	0
	474	13271	0	579	15711	0	680	21208	0
	779	23146	0	844	24718	0	999	27442	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 17 BASED ON A 15 DEGREE BANKED CLIMBING -LEFT-
TURN, COMMENCED AT D2.0 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND
ON PMA VOR R-130

ELEVATION 2151 FT

RUNWAY 18

OEMA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PRINCE ABDULAZIZ I
MADINAH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2396	2265*/39-39-44	2346*/42-42-47	2373*/43-43-47	2398*/44-44-48
		2277**44-47-51	2369**54-54-57	2399**51-55-58	2429**52-57-59
58A	2448	2310*/41-41-46	2393*/44-44-48	2420*/45-45-49	2446*/46-46-49
		2320**45-49-52	2413**51-55-58	2444**52-57-59	2475**54-58-60
56A	2510	2363*/42-42-47	2448*/45-45-50	2475*/46-46-50	2503*/47-47-51
		2372**46-50-53	2467**51-55-58	2498**53-57-60	2529**55-60-62
54A	2571	2415*/44-44-49	2502*/47-47-51	2531*/48-48-52	2559*/49-49-53
		2423**47-50-54	2520**52-55-59	2551**54-58-60	2583**56-60-63
52A	2629	2464*/45-45-50	2554*/48-48-53	2583*/49-49-54	2612*/50-50-54
		2471**47-51-55	2569**53-57-60	2602**55-58-61	2634**57-61-64
50	2686	2512*/47-47-52	2604*/50-50-54	2634*/51-51-55	2663*/52-52-56
		2519**49-52-56	2618**58-58-62	2651**56-60-63	2684**58-62-65
48	2753	2568*/48-48-54	2663*/51-51-56	2693*/52-52-57	2723*/53-53-58
		2574**50-53-57	2675**56-60-63	2709**58-61-65	2743**59-63-66
46	2825	2629*/50-50-55	2726*/53-53-58	2758*/54-54-59	2788*/55-55-60
		2633**51-54-59	2737**60-61-64	2772**63-63-66	2806**61-64-67
44	2898	2689*/51-51-57	2789*/55-55-60	2821*/56-56-61	2853*/57-57-61
		2691**51-53-58	2798**58-61-65	2834**61-65-68	2870**66-66-69
42	2965	2743*/51-53-59	2846*/56-56-61	2880*/57-57-62	2912*/58-58-63
			2855**59-62-66	2891**61-65-69	2928**64-68-71
40	3031	2791*/51-54-60	2904*/58-58-63	2938*/59-59-64	2971*/60-60-65
			2911**60-63-67	2948**62-65-69	2986**65-69-73
38	3094	2836*/51-55-61	2958*/59-59-65	2993*/60-60-65	3027*/61-61-66
			2963**60-63-67	3002**63-66-70	3041**66-69-73
36	3155	2880*/51-56-63	3010*/60-61-66	3046*/62-62-67	3081*/63-63-68
			3013**60-62-67	3054**63-66-70	3093**66-69-73
34	3212	2921*/51-58-64	3059*/60-62-67	3096*/63-63-68	3132*/64-64-69
				3101**63-66-70	3143**66-69-73
32	3269	2961*/51-59-65	3102*/60-63-68	3145*/63-64-70	3182*/65-65-70
				3147**63-65-70	3190**66-69-73
30	3316	2994*/51-59-66	3138*/60-64-69	3185*/63-65-71	3223*/66-66-72
					3230**67-69-74
28	3364	3028*/51-60-67	3175*/60-65-70	3222*/64-66-72	3265*/67-67-73
					3268**67-69-74
26	3367	3035*/52-60-67	3182*/61-65-71	3229*/64-66-72	3271*/67-68-73
					3275**67-69-74

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1470 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.65 PERCENT FOR TODA AND -0.65 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18	3	307	0	8	381	0	35	736	0
	46	823	0	102	1977	0	180	2276	0
	325	10168	0	465	15413	0	581	17805	0
	671	24851	0	763	27160	0	1013	29301	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 18 BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
 COMMENCED AT D2.5 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
 VOR R-130

ELEVATION 2151 FT

RUNWAY 18

OEMA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PRINCE ABDULAZIZ I
MADINAH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3367	3040*/52-61-67	3187*/61-65-71	3234*/64-67-72	3274*/68-68-73 3280**68-70-75
22	3367	3045*/52-61-67	3192*/62-65-71	3239*/65-67-72	3277*/68-68-73 3285**68-70-75
20	3367	3050*/53-61-67	3197*/62-65-71	3243*/65-67-72	3281*/68-68-73 3290**69-71-76
18	3367	3055*/53-61-68	3202*/63-66-71	3246*/66-67-72 3248**66-68-73	3285*/68-68-73 3294**69-72-76
16	3368	3061*/53-61-68	3207*/63-66-71	3250*/66-67-72 3253**66-68-73	3288*/68-68-73 3299**69-72-76
14	3368	3066*/54-61-68	3212*/63-66-71	3253*/67-67-72 3258**67-69-74	3292*/68-68-73 3304**70-73-77
12	3368	3071*/54-62-68	3217*/64-66-71	3257*/67-67-72 3263**67-69-74	3295*/68-68-73 3309**70-73-78
10	3368	3076*/55-62-68	3222*/64-66-72	3260*/67-67-73 3268**68-70-75	3299*/68-68-73 3314**71-74-78
8	3369	3082*/55-62-68	3226*/65-66-72	3264*/67-67-73 3273**68-71-75	3303*/69-69-73 3319**71-75-79
6	3369	3087*/56-62-68	3229*/65-66-72 3232**65-67-72	3268*/68-68-73 3278**69-71-76	3306*/69-69-74 3324**72-75-79
4	3369	3092*/56-62-68	3233*/66-66-72 3237**66-68-73	3271*/68-68-73 3283**69-72-76	3310*/69-69-74 3329**72-76-80
2	3370	3098*/56-62-69	3237*/66-67-72 3242**66-68-73	3275*/68-68-73 3288**70-72-77	3313*/69-69-74 3334**73-76-80
0	3370	3103*/57-63-69	3240*/67-67-72 3247**67-69-74	3278*/68-68-73 3292**70-73-77	3317*/69-69-74 3339**73-77-81
-2	3370	3108*/57-63-69	3243*/67-67-72 3251**67-70-75	3281*/68-68-73 3297**71-74-78	3320*/69-69-74 3344**74-78-81
-4	3370	3113*/58-63-69	3247*/67-67-72 3256**68-70-75	3285*/68-68-73 3303**71-74-78	3324*/69-69-74 3349**74-78-82
-6	3370	3118*/58-63-69	3250*/67-67-72 3261**68-71-76	3288*/68-68-73 3307**72-75-79	3327*/69-69-74 3354**75-79-82
-8	3370	3123*/59-63-69	3253*/67-67-72 3265**69-72-76	3292*/68-68-73 3312**72-76-80	3330*/69-69-74 3359**76-80-83
-10	3370	3128*/59-63-69	3256*/67-67-72 3270**69-72-77	3295*/68-68-73 3317**73-76-80	3334*/69-69-74 3364**76-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1480 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE -0.65 PERCENT FOR TODA AND -0.65 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18	3	307	0	8	381	0	35	736	0
	46	823	0	102	1977	0	180	2276	0
	325	10168	0	465	15413	0	581	17805	0
	671	24851	0	763	27160	0	1013	29301	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 18 BASED ON A 15 DEGREE BANKED CLIMBING -LEFT- TURN,
COMMENCED AT D2.5 PMA VOR TO A MAG COURSE OF 100 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2151 FT

RUNWAY 35

OEMA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PRINCE ABDULAZIZ I
MADINAH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2396	2289*/40-40-45	2347*/42-42-47	2366*/43-43-47	2385*/44-44-48
		2368**56-61-63	2438**59-64-65	2461**60-65-66	2483**61-65-67
58A	2448	2339*/42-42-46	2398*/44-44-48	2417*/45-45-49	2437*/45-45-49
		2416**57-63-64	2487**60-65-67	2510**61-66-67	2533**62-67-68
56A	2510	2396*/44-44-48	2456*/46-46-50	2476*/46-46-50	2496*/47-47-51
		2471**59-64-66	2544**62-67-68	2567**63-68-69	2591**64-69-70
54A	2571	2453*/45-45-50	2514*/47-47-52	2534*/48-48-52	2554*/49-49-53
		2527**61-66-68	2601**64-69-70	2625**65-70-71	2649**66-71-72
52A	2629	2505*/47-47-52	2568*/49-49-53	2589*/50-50-54	2609*/50-50-54
		2579**62-68-69	2656**66-71-72	2681**67-72-73	2706**68-73-74
50	2686	2558*/48-48-53	2622*/50-50-55	2643*/51-51-55	2664*/52-52-56
		2631**64-69-71	2709**67-72-74	2735**68-73-75	2760**69-74-75
48	2753	2619*/50-50-55	2685*/52-52-57	2707*/53-53-57	2728*/54-54-58
		2691**65-70-72	2772**69-74-76	2798**70-75-77	2824**71-76-77
46	2825	2686*/52-52-57	2753*/54-54-59	2775*/55-55-59	2796*/55-55-60
		2755**65-70-72	2840**71-76-78	2867**72-77-79	2894**73-78-80
44	2898	2751*/54-54-59	2820*/56-56-61	2843*/57-57-61	2865*/57-57-62
		2818**66-71-73	2908**73-78-80	2936**74-79-81	2964**75-80-82
42	2965	2812*/55-55-61	2883*/57-57-62	2906*/58-58-63	2929*/59-59-63
		2876**66-71-74	2971**75-80-82	3000**76-81-83	3028**77-82-84
40	3031	2872*/57-57-62	2944*/59-59-64	2968*/60-60-65	2991*/61-61-65
		2933**67-71-74	3031**75-81-82	3062**78-83-85	3091**79-84-86
38	3094	2928*/58-58-64	3002*/61-61-66	3026*/61-61-66	3050*/62-62-67
		2986**67-71-75	3089**76-81-83	3123**79-85-86	3153**80-86-87
36	3155	2983*/60-60-65	3059*/62-62-67	3083*/63-63-68	3108*/64-64-68
		3038**71-72-75	3144**81-81-84	3179**81-86-88	3210**82-88-89
34	3212	3034*/61-61-67	3111*/63-63-69	3136*/64-64-69	3161*/65-65-70
		3087**68-72-76	3196**77-82-84	3235**82-88-90	3266**84-89-91
32	3269	3084*/62-62-68	3163*/65-65-70	3189*/66-66-71	3214*/66-66-71
		3134**69-72-76	3247**78-82-85	3290**84-90-91	3323**85-91-92
30	3316	3125*/63-63-69	3205*/66-66-71	3231*/67-67-72	3257*/67-67-72
		3169**69-73-77	3289**78-83-85	3335**85-90-92	3369**86-92-93
28	3364	3166*/64-64-70	3247*/67-67-72	3274*/68-68-73	3300*/68-68-73
		3202**68-73-78	3330**79-83-86	3375**84-89-91	3413**87-93-94
26	3367	3170*/65-65-70	3251*/67-67-72	3278*/68-68-73	3304*/69-69-74
		3209**68-74-78	3337**79-84-87	3381**85-90-92	3422**87-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1330 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35	34	570	0	37	639	0	279	3495	0
	390	8586	0	463	9313	0	502	9443	0
	549	9510	0	741	17741	0	749	17995	0
	825	18216	0	936	45591	0	1243	49234	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35 BASED ON A 15 DEGREE BANKED

CLIMBING -RIGHT- TURN, COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND
TRACK OUTBOUND ON PMA VOR R-130

ELEVATION 2151 FT

RUNWAY 35

OEMA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

24	3367	3171*/65-65-70	3252*/67-67-72	3279*/68-68-73	3306*/69-69-74
		3213**69-75-79	3340**80-85-87	3384**85-91-92	3426**87-93-94
22	3367	3172*/65-65-70	3254*/67-67-72	3280*/68-68-73	3307*/69-69-74
		3217**69-75-79	3344**81-85-88	3388**86-92-93	3431**87-93-94
20	3367	3174*/65-65-70	3255*/67-67-72	3281*/68-68-73	3308*/69-69-74
		3221**70-76-80	3348**81-86-88	3391**86-92-94	3435**87-93-94
18	3367	3175*/65-65-70	3256*/67-67-72	3283*/68-68-73	3310*/69-69-74
		3225**71-76-80	3353**82-87-89	3394**86-92-94	3439**87-93-94
16	3368	3176*/65-65-70	3257*/67-67-72	3284*/68-68-73	3311*/69-69-74
		3229**71-77-80	3357**82-88-90	3397**87-92-94	3443**87-93-94
14	3368	3178*/65-65-71	3259*/67-67-72	3285*/68-68-73	3312*/69-69-74
		3233**72-77-81	3361**83-88-90	3399**87-92-94	3447**87-93-94
12	3368	3179*/65-65-71	3260*/67-67-73	3287*/68-68-73	3314*/69-69-74
		3237**72-78-81	3365**84-89-91	3402**87-93-94	3451**87-93-94
10	3368	3180*/65-65-71	3261*/67-67-73	3288*/68-68-73	3315*/69-69-74
		3241**73-78-82	3368**84-90-92	3405**87-93-94	3456**87-93-94
8	3369	3182*/65-65-71	3263*/67-67-73	3290*/68-68-73	3317*/69-69-74
		3246**73-79-82	3372**85-91-93	3408**87-93-94	3460**87-93-94
6	3369	3183*/65-65-71	3264*/67-67-73	3291*/68-68-73	3318*/69-69-74
		3250**74-80-83	3376**86-92-93	3411**87-93-94	3465**87-93-94
4	3369	3185*/65-65-71	3266*/67-67-73	3292*/68-68-73	3319*/69-69-74
		3255**75-80-83	3379**86-92-93	3415**87-93-94	3468**87-93-94
2	3370	3186*/65-65-71	3267*/68-68-73	3294*/68-68-73	3321*/69-69-74
		3259**75-81-84	3382**86-92-94	3420**87-93-94	3472**87-93-94
0	3370	3187*/65-65-71	3268*/68-68-73	3295*/68-68-73	3322*/69-69-74
		3263**76-81-84	3384**86-92-94	3424**87-93-94	3476**87-93-94
-2	3370	3188*/65-65-71	3269*/68-68-73	3296*/68-68-73	3323*/69-69-74
		3267**77-81-84	3387**86-92-94	3428**87-93-94	3479**87-93-94
-4	3370	3189*/65-65-71	3270*/68-68-73	3297*/68-68-73	3324*/69-69-74
		3271**77-82-85	3390**86-92-94	3432**87-93-94	3483**87-93-94
-6	3370	3191*/65-65-71	3271*/68-68-73	3298*/68-68-73	3325*/69-69-74
		3275**78-83-86	3392**86-92-94	3436**87-93-94	3486**87-93-94
-8	3370	3192*/65-65-71	3272*/68-68-73	3299*/68-68-73	3326*/69-69-74
		3279**78-84-86	3394**86-92-94	3440**87-93-94	3489**87-93-94
-10	3370	3192*/65-65-71	3273*/68-68-73	3300*/68-68-73	3327*/69-69-74
		3284**79-85-87	3397**86-92-94	3443**87-93-94	3491**88-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 1340 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4335 M LONG WITH 300 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
35	34	570	0	37	639	0	279	3495	0
	390	8586	0	463	9313	0	502	9443	0
	549	9510	0	741	17741	0	749	17995	0
	825	18216	0	936	45591	0	1243	49234	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 35 BASED ON A 15 DEGREE BANKED CLIMBING -
RIGHT- TURN, COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND TRACK
OUTBOUND ON PMA VOR R-130

ELEVATION 2151 FT

RUNWAY 36

OEMA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2396	2358*/43-43-47	2401*/44-44-48	2416*/44-44-48	2431*/44-44-48
		2373**42-45-49	2473**51-54-57	2496**55-58-60	2518**58-62-63
58A	2448	2414*/43-44-49	2458*/45-46-50	2473*/46-46-50	2488*/46-46-50
		2419**43-45-49	2518**52-55-58	2543**55-59-61	2565**58-62-64
56A	2510	2469*/44-46-50	2519*/47-47-51	2534*/47-47-51	2549*/47-47-51
			2572**53-56-58	2597**56-59-62	2621**59-63-65
54A	2571	2513*/45-47-52	2578*/49-49-53	2593*/49-49-53	2609*/49-49-53
			2626**54-56-59	2652**57-60-62	2676**60-64-66
52A	2629	2555*/45-48-53	2633*/50-51-55	2649*/51-51-55	2665*/51-51-55
			2676**54-57-60	2703**58-61-63	2728**61-64-66
50	2686	2596*/46-49-54	2689*/52-52-57	2705*/52-52-57	2720*/52-52-57
			2726**55-57-61	2753**58-61-64	2779**61-65-67
48	2753	2642*/47-51-56	2756*/53-54-58	2772*/54-54-58	2788*/54-54-58
			2781**55-58-61	2810**58-62-65	2837**62-65-68
46	2825	2689*/48-52-57	2825*/56-56-61	2841*/55-56-61	2858*/56-56-61
			2840**55-58-62	2870**59-62-65	2898**62-65-68
44	2898	2732*/48-53-58	2894*/56-58-62	2911*/57-58-63	2927*/57-58-63
			2897**56-59-63	2930**59-62-66	2960**62-66-69
42	2965	2773*/49-54-59	2945*/56-59-64	2978*/58-60-64	2995*/59-60-64
				2986**59-62-66	3016**62-66-70
40	3031	2813*/49-55-61	2989*/57-61-65	3041*/59-62-66	3058*/60-62-66
				3040**59-63-67	3071**63-67-70
38	3094	2850*/49-56-62	3029*/57-62-66	3090*/60-63-68	3118*/61-63-68
					3125**63-67-71
36	3155	2887*/50-57-63	3069*/57-62-67	3131*/60-64-69	3177*/62-65-70
					3175**63-67-71
34	3212	2920F/50-58-64	3106*/58-63-68	3169*/60-65-70	3231*/63-67-71
					3223**63-68-72
32	3269	2953F/50-58-65	3142*/58-64-69	3206*/61-66-71	3271*/63-68-73
30	3316	2981F/51-59-66	3173*/58-65-70	3237*/61-67-72	3304*/64-69-73
28	3364	3010F/51-60-66	3204*/59-66-71	3270*/61-68-73	3339*/64-70-74
26	3367	3019F/51-60-67	3214*/59-66-71	3280*/62-68-73	3349*/64-70-74
24	3367	3028F/52-60-67	3223*/59-66-72	3289*/62-68-73	3359*/65-70-75
22	3367	3036F/52-60-67	3231*/60-66-72	3298*/62-68-73	3368*/65-70-75
20	3367	3044F/52-61-67	3240*/60-67-72	3307*/63-69-74	3373*/66-70-75
					3372**66-71-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1290 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 240 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.65 PERCENT FOR TODA AND 0.65 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	6	271	0	12	334	0	27	769	0
	224	4874	0	325	9699	0	418	10281	0
	454	10425	0	500	10557	0	564	13211	0
	692	15343	0	773	15660	0	1192	47004	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2151 FT

RUNWAY 36

OEMA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF PRINCE ABDULAZIZ I
MADINAH
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
18	3367	3053F/53-61-67	3249*/60-67-72	3317*/63-69-74	3374*/66-70-75 3378**66-71-76
16	3368	3061F/53-61-68	3258*/61-67-72	3326*/63-69-74	3374*/66-70-75 3383**66-72-76
14	3368	3070F/53-61-68	3267*/61-67-73	3336*/64-69-74	3374*/66-70-75 3388**67-72-77
12	3368	3078*/53-62-68	3275*/62-68-73	3345*/64-70-74	3374*/66-70-75 3393**67-73-77
10	3368	3087*/54-62-68	3285*/62-68-73	3354*/65-70-75	3375*/67-70-75 3399**68-73-77
8	3369	3096*/54-62-69	3294*/62-68-73	3355*/65-70-75 3359**65-70-75	3375*/67-70-75 3404**68-74-78
6	3369	3104*/54-63-69	3304*/63-69-74	3355*/66-70-75 3365**65-71-76	3375*/67-70-75 3410**69-74-78
4	3369	3113*/55-63-69	3313*/63-69-74	3356*/66-70-75 3370**66-72-76	3376*/67-70-75 3417**69-75-79
2	3370	3122*/55-63-69	3323*/63-69-74	3356*/67-70-75 3375**66-72-76	3376*/67-70-75 3425**70-75-79
0	3370	3130*/55-63-69	3333*/64-69-74	3356*/67-70-75 3380**67-73-77	3376*/67-70-75 3433**70-76-80
-2	3370	3139*/56-64-70	3334*/64-69-74 3338**64-70-75	3357*/68-70-75 3385**67-73-77	3376*/67-70-75 3441**71-76-80
-4	3370	3148*/56-64-70	3335*/65-69-74 3343**65-70-75	3357*/69-70-75 3390**68-74-78	3376*/67-70-75 3449**71-77-80
-6	3370	3157*/56-64-70	3335*/65-69-74 3348**65-71-75	3357*/69-70-75 3395**68-74-78	3376*/67-70-75 3456**71-78-81
-8	3370	3166*/57-64-70	3335*/66-69-74 3354**66-71-76	3357*/70-70-75 3400**69-75-79	3376*/67-70-75 3464**72-78-81
-10	3370	3175*/57-65-70	3335*/67-69-74 3359**66-72-76	3357*/70-70-75 3405**69-75-79	3375*/67-70-75 3472**72-79-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 1290 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3050 M LONG WITH 240 M OF CLEARWAY AND 120 M OF STOPWAY

RUNWAY SLOPES ARE 0.65 PERCENT FOR TODA AND 0.65 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	6	271	0	12	334	0	27	769	0
	224	4874	0	325	9699	0	418	10281	0
	454	10425	0	500	10557	0	564	13211	0
	692	15343	0	773	15660	0	1192	47004	0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D4.0 PMA VOR TO A MAG COURSE OF 180 DEGREES INTERCEPT AND TRACK OUTBOUND ON PMA
VOR R-130

ELEVATION 2049 FT

RUNWAY 15L

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2405	2559*/43-44-48	2609*/43-44-48	2408*/43-44-48	2424*/44-44-48
		2552**61-67-68	2560**63-68-69	2560**63-68-69	2560**63-68-69
58A	2457	2608*/45-46-50	2669*/45-46-50	2459*/45-46-50	2474*/45-46-50
		2600**62-67-69	2613**64-70-71	2613**65-70-71	2613**65-70-71
56A	2519	2666*/46-48-52	2735*/47-48-52	2746*/47-48-52	2531*/47-48-52
		2657**63-68-69	2675**66-72-73	2675**66-72-73	2675**67-72-73
54A	2581	2724*/48-49-53	2800*/48-49-53	2810*/49-49-53	2589*/48-49-53
		2713**63-69-70	2740**68-74-75	2740**68-74-75	2740**68-74-75
52A	2639	2778*/50-51-55	2857*/50-51-55	2871*/50-51-55	2882*/50-51-55
		2765**63-69-71	2803**70-76-77	2803**70-76-77	2803**70-76-77
50	2697	2832*/51-53-57	2913*/52-53-57	2932*/52-53-57	2943*/52-53-57
		2817**63-69-71	2865**72-78-79	2865**72-78-79	2865**72-78-79
48	2764	2894*/53-55-59	2977*/53-55-59	3004*/54-55-59	3017*/54-55-59
		2875**63-69-71	2933**73-79-80	2937**74-80-81	2937**74-80-81
46	2838	2961*/55-57-61	3046*/55-57-61	3074*/55-57-61	3095*/56-57-61
		2938**63-70-72	3002**73-80-81	3016**76-82-84	3016**76-82-84
44	2911	3027*/57-59-63	3115*/57-59-63	3144*/57-59-63	3172*/57-59-63
		3000**63-70-72	3069**73-80-82	3095**77-85-86	3096**79-85-86
42	2977	3087*/58-60-65	3178*/59-60-65	3208*/59-60-65	3237*/59-60-65
		3057**63-70-73	3130**73-80-82	3157**77-85-86	3168**80-87-88
40	3043	3147*/60-62-67	3240*/61-62-67	3271*/61-62-67	3302*/61-62-67
		3112**63-70-74	3189**73-81-83	3218**77-85-87	3238**80-89-90
38	3107	3205*/62-64-68	3302*/62-64-68	3335*/62-64-68	3367*/62-64-68
		3166**63-71-74	3248**73-81-83	3278**77-86-87	3302**81-89-91
36	3168	3236B/63-65-70	3363*/64-65-70	3396*/64-65-70	3444*/64-65-70
		3217**63-71-75	3303**73-82-84	3335**77-86-88	3361**81-90-91
34	3225	3241B/63-67-71	3428*/65-67-71	3486*/65-67-71	3518*/65-67-71
		3263**63-71-75	3359**73-82-84	3392**77-86-88	3423**80-90-91
32	3282	3297B/62-68-73	3508*/66-68-73	3541*/67-68-73	3574*/67-68-73
		3307**62-71-75	3415**73-82-85	3464**77-86-88	3499**80-90-91
30	3330	3345B/61-69-74	3552*/68-69-74	3586*/68-69-74	3619*/68-69-74
		3344**61-71-75	3480**73-83-85	3513**77-86-88	3543**80-90-92
28	3376	3380*/60-70-75	3595*/69-70-75	3629*/69-70-75	3663*/69-70-75
		3379**61-71-75	3518**73-83-85	3553**77-87-89	3583**80-91-92
26	3376	3390*/61-70-75	3600*/69-70-75	3634*/69-70-75	3667*/69-70-75
		3385**61-71-76	3523**73-83-86	3557**77-87-89	3587**81-91-93
24	3376	3392B/61-70-75	3604*/69-70-75	3638*/69-70-75	3671*/69-70-75
		3390**61-72-76	3528**74-84-86	3562**78-88-90	3591**81-92-93
22	3376	3392B/62-70-75	3608*/69-70-75	3642*/69-70-75	3676*/69-70-75
		3395**62-72-77	3533**74-84-87	3566**78-88-90	3595**82-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 730 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.15 PERCENT FOR TODA AND -0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

15L 23 295 0 447 21430 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 15L

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL
RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3377	3392B/63-70-75	3613*/69-70-75	3647*/69-70-75	3677*/69-70-75
		3400**62-73-77	3538**75-85-87	3571**79-89-91	3599**82-93-94
18	3377	3392B/63-70-75	3617*/69-70-75	3651*/69-70-75	3677*/69-70-75
		3405**63-73-78	3543**75-86-88	3575**79-90-91	3604**83-94-95
16	3377	3393B/64-70-75	3622*/69-70-75	3655*/69-70-75	3677*/69-70-75
		3411**63-74-78	3549**76-86-88	3580**80-90-92	3608**83-94-96
14	3377	3393B/65-71-75	3626*/69-71-75	3660*/69-71-75	3677*/69-71-75
		3419**64-74-78	3554**76-87-89	3585**80-91-92	3612**84-95-96
12	3377	3393B/65-71-75	3631*/69-71-75	3664*/69-71-75	3676*/69-71-75
		3427**64-75-79	3558**77-87-89	3589**81-91-93	3617**85-95-97
10	3378	3394B/66-71-75	3635*/69-71-75	3664*/69-71-75	3676*/69-71-75
		3436**65-75-79	3563**78-88-90	3594**81-92-94	3621**85-96-97
8	3378	3395B/67-71-75	3640*/69-71-75	3664*/69-71-75	3676*/69-71-75
		3444**65-76-80	3568**78-89-90	3598**82-93-94	3626**86-97-98
6	3379	3395B/67-71-75	3645*/69-71-75	3664*/69-71-75	3676*/69-71-75
		3451**66-76-80	3573**79-89-91	3603**82-93-95	3630**86-97-98
4	3379	3396B/68-71-75	3649*/69-71-75	3665*/69-71-75	3675*/69-71-75
		3459**66-77-80	3578**79-90-92	3607**83-94-95	3633**86-98-99
2	3379	3407B/68-71-75	3651*/69-71-75	3665*/69-71-75	3675*/69-71-75
		3467**67-77-81	3583**80-90-92	3612**84-94-96	3633**87-98-99
0	3379	3431B/68-71-75	3651*/69-71-75	3665*/69-71-75	3674*/69-71-75
		3474**67-78-81	3588**80-91-93	3616**84-95-96	3633**88-98-99
-2	3379	3454B/69-71-75	3651*/69-71-75	3664*/69-71-75	3674*/69-71-75
		3482**68-79-82	3593**81-92-93	3621**85-96-97	3633**89-98-99
-4	3379	3478B/69-71-75	3650*/69-71-75	3664*/69-71-75	3673*/69-71-75
		3489**68-79-82	3597**81-92-94	3625**85-96-98	3633**89-98-99
-6	3379	3501B/69-71-75	3650*/69-71-75	3664*/69-71-75	3379*/69-71-75
		3494**69-80-83	3601**82-93-94	3629**86-97-98	3633**90-98-99
-8	3379	3525B/69-71-75	3650*/69-71-75	3664*/69-71-75	3380*/66-71-75
		3500**69-80-83	3606**83-93-95	3633**86-98-99	3633**91-98-99
-10	3379	3550B/69-71-75	3650*/69-71-75	3664*/69-71-75	3384*/66-71-75
		3505**70-81-84	3610**83-94-96	3633**87-98-99	3633**91-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 730 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.15 PERCENT FOR TODA AND -0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15L	23	295	0	447	21430	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 15R

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2405	2531*/42-44-48	2605*/43-44-48	2628*/43-44-48	2650*/44-44-48
		2542**59-65-66	2560**63-68-69	2560**63-68-69	2560**63-68-69
58A	2457	2580*/43-46-50	2655*/44-46-50	2679*/45-46-50	2702*/45-46-50
		2590**60-65-67	2613**64-70-71	2613**65-70-71	2613**65-70-71
56A	2519	2637*/45-48-52	2715*/46-48-52	2740*/46-48-52	2764*/47-48-52
		2646**61-66-68	2675**66-72-73	2675**66-72-73	2675**67-72-73
54A	2581	2694*/47-49-53	2774*/48-49-53	2800*/48-49-53	2825*/48-49-53
		2703**62-67-69	2740**68-74-75	2740**68-74-75	2740**68-74-75
52A	2639	2748*/48-51-55	2830*/49-51-55	2857*/50-51-55	2882*/50-51-55
		2758**63-68-69	2803**69-76-77	2803**70-76-77	2803**70-76-77
50	2697	2800*/49-53-57	2886*/51-53-57	2913*/51-53-57	2939*/52-53-57
		2811**64-68-70	2865**71-78-79	2865**71-78-79	2865**71-78-79
48	2764	2857*/51-55-59	2949*/52-55-59	2977*/53-55-59	3005*/53-55-59
		2869**64-68-71	2933**73-79-80	2937**73-80-81	2937**73-80-81
46	2838	2919*/52-57-61	3014*/54-57-61	3045*/54-57-61	3075*/55-57-61
		2932**64-69-71	3002**73-80-81	3016**75-82-84	3016**75-82-84
44	2911	2979*/53-59-63	3079*/55-59-63	3111*/56-59-63	3142*/56-59-63
		2993**63-69-72	3069**73-80-82	3091**77-84-85	3096**77-85-86
42	2977	3034*/54-60-65	3138*/56-60-65	3171*/57-60-65	3203*/58-60-65
		3049**63-69-72	3130**74-80-82	3153**77-84-86	3168**79-87-88
40	3043	3088*/55-62-67	3195*/58-62-67	3230*/58-62-67	3263*/59-62-67
		3104**64-69-73	3189**74-81-83	3214**77-85-86	3235**81-88-90
38	3107	3140*/56-64-68	3251*/59-64-68	3287*/59-64-68	3324*/60-64-68
		3158**63-70-73	3247**74-81-83	3273**77-85-86	3298**81-89-90
36	3168	3190*/57-65-70	3306*/60-65-70	3344*/60-65-70	3382*/61-65-70
		3209**63-70-74	3301**74-81-84	3330**77-85-87	3356**81-89-90
34	3225	3236*/58-67-71	3358*/61-67-71	3398*/61-67-71	3456*/62-67-71
		3255**63-70-74	3355**74-82-84	3386**77-85-87	3414**81-89-91
32	3282	3282*/59-68-73	3409*/62-68-73	3481*/62-68-73	3521*/63-68-73
		3298**62-70-74	3408**74-82-84	3454**77-85-87	3494**80-89-91
30	3330	3330*/61-69-74	3484*/62-69-74	3524*/63-69-74	3562*/64-69-74
		3334**62-70-74	3469**73-82-84	3507**77-85-88	3537**80-89-91
28	3376	3366B/61-70-75	3524*/63-70-75	3564*/64-70-75	3603*/64-70-75
			3511**73-82-85	3546**77-86-88	3577**80-90-92
26	3376	3374B/61-70-75	3529*/63-70-75	3569*/64-70-75	3608*/65-70-75
			3516**73-82-85	3551**77-87-89	3581**81-90-92
24	3376	3376*/61-70-75	3534*/63-70-75	3574*/64-70-75	3613*/65-70-75
		3380**62-71-75	3521**74-83-86	3555**78-87-89	3586**82-91-93
22	3376	3376*/61-70-75	3539*/63-70-75	3579*/64-70-75	3618*/65-70-75
		3385**62-71-76	3526**75-84-86	3560**78-88-90	3590**82-92-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

15R 27 295 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 15R

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3377	3381*/61-70-75	3544*/63-70-75	3583*/64-70-75	3622*/65-70-75
		3390**63-72-76	3531**75-84-87	3564**79-88-90	3594**83-92-94
18	3377	3387*/61-70-75	3549*/63-70-75	3588*/64-70-75	3627*/65-70-75
		3396**63-72-77	3536**76-85-87	3569**79-89-91	3598**83-93-94
16	3377	3392*/61-70-75	3554*/63-70-75	3593*/64-70-75	3632*/65-70-75
		3401**64-73-77	3542**76-85-88	3573**80-89-91	3603**84-93-95
14	3377	3398*/61-71-75	3559*/63-71-75	3598*/64-71-75	3637*/65-71-75
		3407**64-73-78	3547**77-86-88	3578**80-90-92	3607**84-94-95
12	3377	3404*/61-71-75	3564*/64-71-75	3603*/64-71-75	3642*/65-71-75
		3413**65-74-78	3552**77-87-89	3583**81-90-92	3611**85-95-96
10	3378	3410*/61-71-75	3569*/64-71-75	3608*/64-71-75	3646*/65-71-75
		3422**65-75-78	3556**78-87-89	3588**81-91-93	3616**85-95-96
8	3378	3420*/61-71-75	3574*/64-71-75	3613*/64-71-75	3651*/65-71-75
		3430**66-75-79	3561**78-88-90	3593**82-92-93	3621**86-96-97
6	3379	3431*/61-71-75	3579*/64-71-75	3618*/65-71-75	3656*/65-71-75
		3438**66-75-79	3566**79-88-90	3597**83-92-94	3625**86-96-98
4	3379	3442*/61-71-75	3584*/64-71-75	3623*/65-71-75	3661*/65-71-75
		3446**67-76-80	3571**79-89-91	3601**83-93-94	3629**87-97-98
2	3379	3452*/61-71-75	3589*/64-71-75	3628*/65-71-75	3666*/65-71-75
		3454**67-77-80	3576**80-89-91	3606**84-94-95	3633**87-98-99
0	3379	3462*/61-71-75	3594*/64-71-75	3633*/65-71-75	3671*/66-71-75
		3462**68-77-80	3581**80-90-92	3610**84-94-96	3633**87-98-99
-2	3379	3471*/62-71-75	3599*/64-71-75	3638*/65-71-75	3675*/66-71-75
		3470**68-78-81	3586**81-91-92	3615**85-95-96	3633**86-98-99
-4	3379	3480*/62-71-75	3604*/64-71-75	3642*/65-71-75	3680*/66-71-75
		3477**69-78-81	3591**82-91-93	3619**85-95-97	3633**86-98-99
-6	3379	3488*/62-71-75	3609*/64-71-75	3647*/65-71-75	3684*/66-71-75
		3485**69-79-82	3595**82-92-94	3624**86-96-97	3633**86-98-99
-8	3379	3493*/62-71-75	3613*/64-71-75	3652*/65-71-75	3689*/66-71-75
		3491**70-79-82	3600**83-93-94	3628**87-97-98	3633**86-98-99
-10	3379	3498*/62-71-75	3618*/64-71-75	3656*/65-71-75	3693*/66-71-75
		3496**70-80-83	3604**83-93-95	3632**87-97-99	3633**86-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.12 PERCENT FOR TODA AND -0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15R	27	295	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33L

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2405	2500*/44-44-48	2566*/44-44-48	2586*/44-44-48	2605*/44-44-48
		2520**57-61-62	2560**63-68-69	2560**63-68-69	2560**64-68-69
58A	2457	2549*/45-46-50	2617*/46-46-50	2638*/46-46-50	2657*/46-46-50
		2568**57-61-63	2613**65-70-71	2613**65-70-71	2613**65-70-71
56A	2519	2607*/47-48-52	2678*/48-48-52	2699*/48-48-52	2720*/48-48-52
		2623**58-62-64	2675**67-72-73	2675**67-72-73	2675**67-72-73
54A	2581	2665*/49-49-53	2739*/49-49-53	2761*/49-49-53	2782*/49-49-53
		2679**59-63-65	2740**68-74-75	2740**69-74-75	2740**69-74-75
52A	2639	2719*/50-51-55	2795*/51-51-55	2818*/51-51-55	2840*/51-51-55
		2733**60-64-66	2801**70-76-77	2803**70-76-77	2803**71-76-77
50	2697	2773*/52-53-57	2852*/53-53-57	2875*/53-53-57	2897*/53-53-57
		2786**61-64-67	2857**71-76-77	2865**72-78-79	2865**72-78-79
48	2764	2835*/53-55-59	2913*/54-55-59	2940*/55-55-59	2964*/55-55-59
		2847**62-65-68	2922**72-77-78	2937**74-80-81	2937**75-80-81
46	2838	2902*/55-57-61	2983*/56-57-61	3012*/57-57-61	3036*/57-57-61
		2912**63-66-69	2992**73-78-79	3013**76-82-83	3016**77-82-84
44	2911	2968*/57-59-63	3051*/58-59-63	3079*/58-59-63	3108*/59-59-63
		2977**64-67-70	3059**74-78-80	3082**77-82-84	3096**79-85-86
42	2977	3028*/59-60-65	3114*/60-60-65	3142*/60-60-65	3173*/60-60-65
		3032**64-67-70	3119**74-79-81	3144**77-83-84	3165**80-86-88
40	3043	3088*/61-62-67	3177*/61-62-67	3205*/61-62-67	3237*/62-62-67
		3087**64-67-71	3177**74-79-81	3203**77-83-85	3226**81-87-88
38	3107	3146*/62-64-68	3237*/63-64-68	3266*/63-64-68	3296*/63-64-68
		3140**64-68-71	3234**74-79-81	3262**77-83-85	3288**81-87-88
36	3168	3202*/64-65-70	3295*/64-65-70	3327*/64-65-70	3358*/65-65-70
		3190**64-68-72	3288**74-80-82	3318**77-83-85	3345**81-87-89
34	3225	3246*/64-67-71	3352*/66-67-71	3385*/66-67-71	3421*/66-67-71
		3237**64-68-72	3341**74-80-82	3372**77-84-86	3401**81-88-89
32	3282	3281B/64-68-73	3408*/67-68-73	3462*/67-68-73	3502*/67-68-73
			3392**74-80-83	3433**77-84-86	3480**80-87-89
30	3330	3311B/63-69-74	3482*/68-69-74	3516*/68-69-74	3547*/69-69-74
			3446**74-80-83	3493**77-84-86	3524**80-88-90
28	3376	3341B/63-70-74	3527*/69-70-75	3559*/69-70-75	3590*/70-70-75
			3498**74-80-83	3531**77-84-87	3564**81-88-90
26	3376	3348B/63-70-74	3530*/69-70-75	3562*/69-70-75	3594*/70-70-75
			3503**74-81-84	3536**78-85-87	3568**81-89-91
24	3376	3356B/63-70-75	3534*/69-70-75	3566*/69-70-75	3598*/70-70-75
			3507**75-81-84	3541**78-85-88	3573**82-89-91
22	3376	3364B/64-70-75	3538*/69-70-75	3570*/69-70-75	3601*/70-70-75
			3512**75-82-85	3546**79-86-88	3577**82-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

33L 30 295 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33L

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL
RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3377	3372B/64-70-75	3541*/69-70-75	3573*/69-70-75	3605*/70-70-75
			3517**76-82-85	3551**79-86-89	3582**83-90-92
18	3377	3377B/65-70-75	3545*/69-70-75	3577*/70-70-75	3608*/70-70-75
		3379**65-71-75	3521**76-83-86	3555**80-87-89	3587**83-91-93
16	3377	3377B/65-70-75	3549*/69-70-75	3581*/70-70-75	3612*/70-70-75
		3384**65-71-76	3526**77-84-86	3560**80-88-90	3591**84-92-93
14	3377	3377B/66-71-75	3552*/69-71-75	3584*/70-71-75	3615*/70-71-75
		3390**66-72-76	3531**77-84-87	3564**81-88-90	3595**84-92-94
12	3377	3377B/67-71-75	3556*/69-71-75	3588*/70-71-75	3619*/70-71-75
		3395**66-72-77	3536**78-85-87	3569**81-89-91	3600**85-93-94
10	3378	3378B/67-71-75	3560*/69-71-75	3592*/70-71-75	3623*/70-71-75
		3401**67-73-77	3541**78-85-88	3574**82-89-91	3604**85-93-95
8	3378	3378B/68-71-75	3564*/70-71-75	3595*/70-71-75	3630*/71-71-75
		3407**67-73-78	3547**79-86-88	3579**82-90-92	3609**86-94-95
6	3379	3379B/69-71-75	3568*/70-71-75	3599*/70-71-75	3633*/71-71-75
		3413**68-74-78	3552**79-86-89	3584**83-91-92	3613**86-95-96
4	3379	3399B/69-71-75	3571*/70-71-75	3603*/70-71-75	3637*/71-71-75
		3422**68-74-78	3557**80-87-89	3589**83-91-93	3618**87-95-97
2	3379	3422B/69-71-75	3575*/70-71-75	3606*/70-71-75	3640*/71-71-75
		3431**69-75-79	3562**80-88-90	3594**84-92-93	3623**88-96-97
0	3379	3445B/69-71-75	3579*/70-71-75	3610*/70-71-75	3643*/71-71-75
		3439**69-75-79	3566**81-88-90	3598**84-92-94	3627**88-97-98
-2	3379	3469B/69-71-75	3582*/70-71-75	3613*/70-71-75	3646*/71-71-75
		3447**70-76-80	3571**81-89-91	3603**85-93-95	3631**89-97-98
-4	3379	3489*/69-71-75	3586*/70-71-75	3620*/71-71-75	3649*/71-71-75
		3455**70-77-80	3576**82-89-91	3607**86-94-95	3633**89-98-99
-6	3379	3493*/69-71-75	3589*/70-71-75	3623*/71-71-75	3652*/71-71-75
		3463**71-77-81	3581**82-90-92	3612**86-94-96	3633**90-98-99
-8	3379	3496*/69-71-75	3593*/70-71-75	3626*/71-71-75	3654*/71-71-75
		3471**71-78-81	3586**83-91-92	3616**87-95-96	3633**91-98-99
-10	3379	3500*/69-71-75	3596*/70-71-75	3629*/71-71-75	3657*/71-71-75
		3479**72-78-82	3591**83-91-93	3621**87-96-97	3633**92-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.12 PERCENT FOR TODA AND 0.12 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33L	30	295	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33R

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2405	2497*/44-44-48	2562*/44-44-48	2582*/44-44-48	2601*/44-44-48
		2519**56-60-62	2560**63-68-69	2560**63-68-69	2560**64-68-69
58A	2457	2546*/45-46-50	2613*/46-46-50	2633*/46-46-50	2653*/46-46-50
		2566**57-61-63	2613**65-70-71	2613**65-70-71	2613**65-70-71
56A	2519	2604*/47-48-52	2674*/48-48-52	2695*/48-48-52	2716*/48-48-52
		2621**58-62-64	2675**67-72-73	2675**67-72-73	2675**67-72-73
54A	2581	2662*/49-49-53	2735*/49-49-53	2756*/49-49-53	2777*/49-49-53
		2677**59-63-65	2740**69-74-75	2740**69-74-75	2740**69-74-75
52A	2639	2716*/50-51-55	2791*/51-51-55	2814*/51-51-55	2835*/51-51-55
		2731**60-63-66	2800**70-75-76	2803**71-76-77	2803**71-76-77
50	2697	2770*/52-53-57	2848*/53-53-57	2871*/53-53-57	2893*/53-53-57
		2784**64-64-67	2856**71-76-77	2865**72-78-79	2865**72-78-79
48	2764	2832*/54-55-59	2912*/55-55-59	2936*/55-55-59	2959*/55-55-59
		2845**62-65-68	2920**72-77-78	2937**75-80-81	2937**75-80-81
46	2838	2899*/56-57-61	2980*/56-57-61	3008*/57-57-61	3032*/57-57-61
		2910**63-66-69	2990**73-78-79	3012**76-82-83	3016**77-82-84
44	2911	2965*/57-59-63	3048*/58-59-63	3075*/58-59-63	3103*/59-59-63
		2975**64-66-70	3058**73-78-80	3081**77-82-83	3096**79-85-86
42	2977	3026*/59-60-65	3111*/60-60-65	3139*/60-60-65	3169*/60-60-65
		3031**64-67-70	3118**74-78-80	3143**77-82-84	3165**80-86-87
40	3043	3086*/61-62-67	3174*/61-62-67	3202*/62-62-67	3233*/62-62-67
		3085**64-67-71	3176**74-79-81	3202**77-83-84	3225**81-87-88
38	3107	3144*/62-64-68	3234*/63-64-68	3263*/63-64-68	3293*/63-64-68
		3138**64-67-71	3233**74-79-81	3261**77-83-85	3287**81-87-88
36	3168	3199*/64-65-70	3292*/64-65-70	3324*/65-65-70	3355*/65-65-70
		3188**64-68-72	3286**74-79-82	3317**77-83-85	3344**81-87-89
34	3225	3243*/64-67-71	3349*/66-67-71	3381*/66-67-71	3415*/66-67-71
		3235**64-68-72	3339**74-80-82	3371**77-83-86	3401**81-87-89
32	3282	3280B/64-68-73	3405*/67-68-73	3457*/67-68-73	3499*/68-68-73
			3391**74-80-83	3432**77-84-86	3479**80-87-89
30	3330	3309B/63-69-74	3477*/68-69-74	3512*/68-69-74	3543*/69-69-74
			3444**74-80-83	3491**77-84-86	3523**80-88-89
28	3376	3339B/63-69-74	3523*/69-70-75	3555*/69-70-75	3587*/70-70-75
			3496**74-80-83	3530**77-84-87	3563**81-88-90
26	3376	3347B/63-70-74	3527*/69-70-75	3559*/70-70-75	3591*/70-70-75
			3501**74-81-84	3535**78-85-87	3567**81-89-91
24	3376	3355B/64-70-75	3531*/69-70-75	3563*/70-70-75	3594*/70-70-75
			3506**75-81-84	3540**78-85-88	3572**82-89-91
22	3376	3362B/64-70-75	3534*/69-70-75	3566*/70-70-75	3597*/70-70-75
			3511**75-82-85	3545**79-86-88	3576**82-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.15 PERCENT FOR TODA AND 0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

33R 30 297 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 2049 FT

RUNWAY 33R

OERK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

KING KHALED INTL

RIYADH

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3377	3370B/64-70-75	3538*/69-70-75	3570*/70-70-75	3601*/70-70-75
			3515**76-82-85	3549**79-86-88	3581**83-90-92
18	3377	3377B/65-70-75	3542*/69-70-75	3573*/70-70-75	3604*/70-70-75
			3520**76-83-85	3554**80-87-89	3586**83-91-93
16	3377	3377B/66-70-75	3545*/69-70-75	3577*/70-70-75	3608*/70-70-75
		3383**65-71-76	3525**77-83-86	3559**80-87-90	3590**84-91-93
14	3377	3377B/66-71-75	3549*/70-71-75	3581*/70-71-75	3612*/70-71-75
		3388**66-72-76	3530**77-84-86	3563**81-88-90	3594**84-92-94
12	3377	3377B/67-71-75	3553*/70-71-75	3584*/70-71-75	3615*/70-71-75
		3394**66-72-77	3535**78-85-87	3568**81-89-91	3599**85-93-94
10	3378	3378B/68-71-75	3556*/70-71-75	3588*/70-71-75	3621*/71-71-75
		3400**67-73-77	3540**78-85-87	3573**82-89-91	3603**85-93-95
8	3378	3378B/68-71-75	3560*/70-71-75	3592*/70-71-75	3625*/71-71-75
		3405**67-73-77	3545**79-86-88	3578**82-90-92	3608**86-94-95
6	3379	3379B/69-71-75	3564*/70-71-75	3595*/70-71-75	3628*/71-71-75
		3411**68-74-78	3551**79-86-88	3583**83-90-92	3612**86-95-96
4	3379	3398B/69-71-75	3568*/70-71-75	3599*/70-71-75	3631*/71-71-75
		3420**68-74-78	3556**80-87-89	3588**83-91-93	3617**87-95-96
2	3379	3421B/69-71-75	3571*/70-71-75	3602*/70-71-75	3634*/71-71-75
		3429**69-75-79	3560**80-87-90	3593**84-92-93	3622**88-96-97
0	3379	3445B/69-71-75	3575*/70-71-75	3606*/70-71-75	3637*/71-71-75
		3437**69-75-79	3565**81-88-90	3597**84-92-94	3626**88-96-98
-2	3379	3469B/69-71-75	3578*/70-71-75	3612*/71-71-75	3640*/71-71-75
		3445**70-76-80	3570**81-89-91	3602**85-93-94	3630**89-97-98
-4	3379	3485*/69-71-75	3582*/70-71-75	3615*/71-71-75	3643*/71-71-75
		3453**70-76-80	3575**82-89-91	3606**86-94-95	3633**89-98-99
-6	3379	3489*/69-71-75	3585*/70-71-75	3618*/71-71-75	3646*/71-71-75
		3461**71-77-80	3580**82-90-92	3611**86-94-96	3633**90-98-99
-8	3379	3492*/69-71-75	3588*/70-71-75	3621*/71-71-75	3649*/71-71-75
		3469**71-78-81	3585**83-91-92	3615**87-95-96	3633**91-98-99
-10	3379	3496*/69-71-75	3592*/70-71-75	3623*/71-71-75	3651*/71-71-75
		3477**72-78-81	3590**83-91-93	3620**87-95-97	3633**91-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4205 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.15 PERCENT FOR TODA AND 0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33R	30	297	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07L

OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2587	2638*/50-50-54	2709*/50-50-54	2732*/50-50-54	2754*/50-50-54
		2650**55-58-60	2718**63-68-69	2736**66-71-72	2752**69-74-75
58A	2644	2689*/51-51-55	2764*/51-51-55	2787*/51-51-55	2810*/51-51-55
		2698**55-58-61	2770**64-68-70	2789**67-72-73	2805**70-75-76
56A	2711	2749*/53-53-57	2828*/53-53-57	2852*/53-53-57	2876*/53-53-57
		2752**55-58-61	2830**65-69-71	2849**68-73-74	2866**71-76-77
54	2779	2811*/54-55-59	2893*/55-55-59	2918*/55-55-59	2942*/55-55-59
		2808**55-58-62	2891**65-70-72	2911**68-73-75	2930**72-77-78
52	2855	2877*/56-57-61	2965*/57-57-61	2991*/57-57-61	3016*/57-57-61
		2870**55-59-63	2957**65-70-73	2981**69-74-76	3001**72-77-79
50	2929	2931*/55-59-63	3035*/59-59-63	3061*/59-59-63	3087*/59-59-63
		2930**55-59-63	3022**65-71-73	3046**69-74-77	3068**72-78-80
48	3007	2988*/56-61-65	3108*/61-61-65	3135*/61-61-65	3162*/61-61-65
			3087**65-71-74	3113**69-75-77	3137**72-78-80
46	3080	3039*/56-62-66	3174*/63-63-67	3204*/63-63-67	3232*/63-63-67
			3150**65-72-75	3177**69-75-78	3202**72-79-81
44	3152	3086F/56-63-68	3240*/64-65-69	3272*/65-65-69	3302*/65-65-69
			3211**65-72-75	3239**69-75-78	3266**72-79-81
42	3222	3128F/56-64-69	3307*/66-67-71	3342*/67-67-71	3372*/67-67-71
			3270**66-72-76	3300**69-76-79	3329**73-79-82
40	3291	3169F/57-65-70	3364*/67-68-73	3407*/68-68-73	3460*/68-68-73
			3331**66-73-77	3361**69-76-80	3391**73-80-83
38	3356	3206F/57-66-71	3413*/66-70-74	3497*/69-70-74	3530*/70-70-74
			3386**66-73-77	3422**69-77-80	3468**72-80-83
36	3427	3245F/57-67-72	3492*/66-71-76	3555*/70-71-76	3591*/71-71-76
			3457**65-73-77	3498**69-77-80	3530**72-80-83
34	3496	3279F/58-67-73	3533*/66-71-76	3599*/70-71-76	3640*/71-71-76
			3516**65-73-78	3549**69-77-81	3582**72-81-84
32	3524	3300F/58-68-74	3556*/66-72-77	3623*/70-72-77	3669*/72-72-77
			3541**65-74-78	3575**69-77-81	3609**73-81-84
30	3525	3310F/58-68-74	3565*/66-72-77	3631*/71-72-77	3673*/72-72-77
			3547**66-74-79	3581**70-78-82	3614**73-81-85
28	3526	3320F/59-68-74	3573*/67-72-77	3639*/71-72-77	3677*/72-72-77
			3552**66-75-79	3586**70-78-82	3619**74-82-85
26	3527	3330F/59-69-74	3581*/67-72-77	3647*/72-72-77	3681*/72-72-77
			3557**67-75-79	3591**70-79-82	3624**74-82-86
24	3527	3340F/59-69-74	3590*/68-72-77	3650*/72-72-77	3685*/72-72-77
			3562**67-76-80	3596**71-79-83	3629**75-83-86
22	3528	3350F/59-69-75	3598*/69-72-77	3656*/72-72-77	3688*/72-72-77
			3567**68-76-80	3602**71-80-83	3635**75-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 914 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.20 PERCENT FOR TODA AND 0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

07L 39 1080 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07L

OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3529	3360F/60-69-75	3606*/69-72-77	3660*/72-72-77	3692*/72-72-77
			3573**68-77-81	3607**72-80-84	3640**76-84-87
18	3530	3370F/60-70-75	3614*/70-72-77	3664*/72-72-77	3696*/72-72-77
			3578**69-77-81	3612**72-81-84	3645**76-85-87
16	3530	3381F/60-70-75	3622*/70-72-77	3668*/72-72-77	3700*/72-72-77
			3583**69-78-81	3617**73-81-85	3651**77-85-88
14	3531	3391F/61-70-76	3630*/71-72-77	3672*/72-72-77	3704*/72-72-77
			3588**70-78-82	3622**73-82-85	3656**77-86-88
12	3532	3402F/61-70-76	3638*/71-72-77	3676*/72-72-77	3708*/72-72-77
			3594**70-79-82	3628**74-82-86	3661**78-86-89
10	3533	3414F/61-71-76	3646*/72-72-77	3680*/72-72-77	3712*/72-72-77
			3600**70-79-83	3633**74-83-86	3666**78-87-89
8	3533	3433F/61-71-76	3652*/72-72-77	3684*/72-72-77	3716*/72-72-77
			3605**71-80-83	3639**75-83-86	3672**79-87-90
6	3534	3453F/61-71-76	3655*/72-72-77	3688*/72-72-77	3719*/72-72-77
			3610**71-80-84	3644**75-84-87	3677**79-88-90
4	3534	3472F/61-71-76	3659*/72-72-77	3691*/72-72-77	3723*/72-72-77
			3615**72-81-84	3650**76-85-87	3682**80-88-91
2	3535	3486*/62-71-76	3663*/72-72-77	3695*/72-72-77	3726*/72-72-77
			3621**72-81-85	3655**76-85-88	3687**80-89-91
0	3535	3493*/62-71-76	3666*/72-72-77	3698*/72-72-77	3730*/72-72-77
			3626**73-82-85	3660**77-86-88	3692**81-89-92
-2	3535	3501*/63-71-76	3670*/72-72-77	3702*/72-72-77	3733*/72-72-77
			3631**73-82-86	3665**77-86-89	3698**81-90-92
-4	3535	3508*/63-72-76	3673*/72-72-77	3705*/72-72-77	3736*/72-72-77
			3636**74-83-86	3670**78-87-89	3702**82-91-93
-6	3535	3515*/63-72-77	3676*/72-72-77	3708*/72-72-77	3739*/72-72-77
			3641**75-84-87	3675**78-87-90	3707**82-91-93
-8	3535	3522*/64-72-77	3680*/72-72-77	3712*/72-72-77	3743*/72-72-77
			3647**75-84-87	3680**79-88-90	3712**83-92-94
-10	3535	3529*/64-72-77	3683*/72-72-77	3715*/72-72-77	3746*/72-72-77
			3652**76-85-88	3685**80-89-91	3717**84-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 430 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 914 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.20 PERCENT FOR TODA AND 0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07L	39	1080	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07R

OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2587	2509*/47-47-51	2583*/49-49-54	2606*/50-50-54	2627*/50-50-54
		2540**55-59-62	2632**61-65-67	2663**63-68-69	2693**64-69-70
58A	2644	2561*/48-48-53	2637*/51-51-55	2660*/51-51-55	2683*/51-51-55
		2590**57-61-64	2683**61-65-68	2714**64-68-70	2744**66-70-72
56A	2711	2620*/50-50-55	2699*/53-53-57	2723*/53-53-57	2746*/53-53-57
		2646**58-62-65	2741**62-66-69	2772**65-69-71	2804**67-71-73
54	2779	2681*/52-52-57	2762*/54-54-59	2788*/55-55-59	2811*/55-55-59
		2705**58-61-65	2802**64-68-70	2833**66-70-72	2865**68-72-74
52	2855	2749*/54-54-59	2833*/56-56-61	2859*/57-57-61	2884*/57-57-61
		2770**63-63-66	2870**66-70-73	2903**67-71-74	2935**70-74-76
50	2929	2815*/55-55-60	2902*/58-58-63	2930*/59-59-63	2955*/59-59-63
		2834**61-65-68	2936**68-72-74	2970**69-73-75	3003**71-75-77
48	3007	2884*/57-57-62	2974*/60-60-65	3002*/61-61-65	3028*/61-61-65
		2900**62-66-69	3004**68-72-75	3039**71-75-77	3073**72-76-79
46	3080	2949*/59-59-64	3041*/62-62-66	3070*/63-63-67	3097*/63-63-67
		2961**62-65-69	3069**70-73-76	3105**72-76-79	3140**74-78-80
44	3152	3011*/61-61-66	3106*/64-64-68	3136*/64-64-69	3165*/65-65-69
		3020**62-64-69	3133**71-74-77	3169**73-76-79	3206**76-80-82
42	3222	3072*/62-62-68	3170*/65-65-70	3201*/66-66-71	3231*/67-67-71
		3077**62-64-69	3195**72-75-78	3232**74-77-80	3269**76-80-82
40	3291	3130*/62-64-69	3232*/67-67-72	3264*/68-68-72	3296*/68-68-73
			3254**72-75-78	3294**75-79-82	3334**77-81-84
38	3356	3179*/62-65-70	3290*/68-68-73	3324*/69-69-74	3358*/70-70-74
			3310**72-74-78	3353**75-78-81	3395**78-82-85
36	3427	3230*/62-66-72	3352*/70-70-75	3387*/70-70-75	3426*/71-71-76
			3367**72-74-78	3413**75-78-81	3478**78-81-84
34	3496	3274*/62-67-73	3409*/71-71-76	3456*/71-71-76	3496*/71-71-76
			3422**72-74-78	3489**75-77-81	3534**78-81-84
32	3524	3299*/62-68-74	3446*/71-71-76	3490*/71-71-76	3523*/72-72-77
			3460**72-74-78	3514**75-77-81	3560**78-81-84
30	3525	3304*/63-68-74	3450*/71-71-76	3493*/71-71-76	3526*/72-72-77
			3467**72-74-79	3519**75-78-81	3565**79-82-85
28	3526	3309*/63-68-74	3455*/71-71-76	3496*/71-71-76	3529*/72-72-77
			3475**72-74-79	3525**76-78-82	3571**79-82-85
26	3527	3315*/64-68-74	3459*/71-71-76	3499*/71-71-76	3532*/72-72-77
			3482**73-75-79	3530**76-79-82	3576**80-83-86
24	3527	3320*/64-68-74	3464*/71-71-76	3502*/71-71-76	3535*/72-72-77
			3488**73-75-79	3535**77-79-83	3581**80-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07R	59	990	0	108	1820	0	138	2040	0
	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07R

OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3528	3326*/64-68-74	3468*/71-71-76	3505*/72-72-76	3538*/72-72-77
			3494**74-76-80	3540**77-80-83	3586**81-84-87
20	3529	3331*/65-69-74	3471*/71-71-76	3508*/72-72-76	3540*/72-72-77
			3499**74-77-81	3545**78-81-84	3591**81-85-87
18	3530	3336*/65-69-74	3475*/71-71-76	3511*/72-72-76	3543*/72-72-77
			3504**75-77-81	3551**78-81-84	3596**82-85-88
16	3530	3341*/66-69-75	3479*/71-71-76	3514*/72-72-76	3546*/72-72-77
			3509**75-78-82	3556**79-82-85	3601**82-86-89
14	3531	3347*/66-69-75	3483*/71-71-76	3517*/72-72-77	3549*/72-72-77
			3515**76-78-82	3561**79-82-86	3606**83-86-89
12	3532	3352*/67-69-75	3487*/71-71-76	3521*/72-72-77	3552*/72-72-77
			3520**76-79-83	3567**80-83-86	3612**83-87-90
10	3533	3357*/67-69-75	3490*/71-71-76	3523*/72-72-77	3554*/72-72-77
			3525**77-80-83	3572**80-84-87	3617**84-88-90
8	3533	3362*/68-69-75	3493*/71-71-76	3526*/72-72-77	3557*/72-72-77
			3531**77-80-84	3577**81-84-87	3622**84-88-91
6	3534	3367*/68-70-75	3496*/71-71-76	3529*/72-72-77	3560*/72-72-77
			3536**78-81-84	3582**81-85-88	3627**85-89-91
4	3534	3372*/69-70-75	3498*/71-71-76	3532*/72-72-77	3562*/72-72-77
		3373**69-71-76	3541**78-81-85	3587**82-86-88	3631**85-89-92
2	3535	3376*/69-70-75	3501*/71-71-76	3534*/72-72-77	3564*/72-72-77
		3378**69-72-77	3546**79-82-85	3592**82-86-89	3636**85-90-92
0	3535	3379*/70-70-75	3504*/71-71-76	3537*/72-72-77	3567*/72-72-77
		3383**70-72-77	3551**79-83-86	3597**83-87-89	3641**86-91-93
-2	3535	3382*/70-70-75	3506*/72-72-76	3539*/72-72-77	3569*/72-72-77
		3388**70-73-78	3556**80-83-86	3602**83-88-90	3646**87-91-93
-4	3535	3385*/70-70-75	3509*/72-72-76	3541*/72-72-77	3571*/72-72-77
		3393**71-73-78	3561**80-84-87	3607**84-88-91	3651**87-92-94
-6	3535	3388*/70-70-75	3511*/72-72-76	3543*/72-72-77	3573*/72-72-77
		3399**71-73-78	3566**81-85-88	3611**85-89-91	3655**88-93-95
-8	3535	3391*/70-70-76	3513*/72-72-76	3545*/72-72-77	3575*/72-72-77
		3403**71-73-78	3571**81-86-88	3616**85-90-92	3660**88-93-95
-10	3535	3393*/70-70-76	3516*/72-72-77	3547*/72-72-77	3577*/72-72-77
		3408**72-74-79	3576**82-86-89	3621**86-90-93	3664**88-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07R	59	990	0	108	1820	0	138	2040	0
	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07RtxwC OPKC

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2587	2426*/44-44-49	2511*/47-47-52	2538*/48-48-52	2565*/49-49-53
		2437**48-50-54	2536**54-58-60	2570**57-61-63	2603**58-62-64
58A	2644	2475*/45-45-51	2562*/48-48-53	2590*/49-49-54	2618*/50-50-55
		2484**48-50-55	2586**55-58-61	2619**58-61-64	2652**60-63-66
56A	2711	2531*/47-47-52	2621*/50-50-55	2650*/51-51-56	2679*/52-52-56
		2538**49-51-56	2643**57-60-63	2677**58-61-64	2710**60-63-66
54	2779	2589*/49-49-54	2682*/52-52-57	2711*/53-53-57	2741*/54-54-58
		2594**50-51-56	2701**58-61-64	2735**59-62-65	2769**61-64-67
52	2855	2653*/50-50-56	2749*/54-54-59	2780*/55-55-59	2810*/56-56-60
		2655**51-52-57	2765**59-62-65	2800**61-64-67	2835**62-65-68
50	2929	2713*/51-52-58	2815*/55-55-60	2846*/56-56-61	2877*/57-57-62
			2828**60-62-66	2864**62-65-68	2900**64-67-70
48	3007	2771*/51-54-59	2883*/57-57-62	2916*/58-58-63	2948*/59-59-64
			2893**60-62-66	2930**63-65-69	2967**66-69-72
46	3080	2822*/51-55-61	2947*/59-59-64	2980*/60-60-65	3013*/61-61-66
			2953**60-61-66	2992**63-65-69	3030**66-69-72
44	3152	2869*/51-56-62	3008*/60-60-66	3043*/62-62-67	3077*/63-63-68
				3051**63-65-69	3091**67-69-72
42	3222	2915*/52-57-64	3064*/60-62-67	3105*/63-63-68	3139*/64-64-69
				3107**64-65-70	3150**67-68-72
40	3291	2959*/52-58-65	3117*/61-63-69	3162*/64-65-70	3200*/66-66-71
					3206**67-68-73
38	3356	2999*/52-59-66	3165*/61-64-70	3212*/64-66-71	3256*/67-67-72
36	3427	3037F/52-60-67	3214*/61-66-71	3263*/64-67-73	3312*/67-68-74
34	3496	3068F/53-61-68	3255*/61-67-73	3310*/64-68-74	3361*/67-70-75
32	3524	3087F/53-61-69	3277*/61-67-73	3335*/64-69-74	3387*/68-70-75
30	3525	3096F/53-62-69	3285*/62-67-73	3341*/65-69-74	3392*/68-70-76
28	3526	3105F/53-62-69	3292*/62-67-73	3347*/65-69-75	3398*/68-70-76
26	3527	3114F/54-62-69	3300*/62-68-74	3352*/66-69-75	3403*/69-71-76
24	3527	3123F/54-62-69	3306*/63-68-74	3358*/66-69-75	3409*/69-71-76
22	3528	3132F/54-63-70	3311*/63-68-74	3364*/67-69-75	3415*/70-71-76
20	3529	3141*/55-63-70	3317*/64-68-74	3369*/67-70-75	3423*/70-71-76
					3424**70-72-77
18	3530	3148*/55-63-70	3323*/64-68-74	3375*/67-70-75	3431*/71-71-76
					3433**71-72-77
16	3530	3155*/55-63-70	3329*/65-68-74	3380*/68-70-75	3436*/71-71-76
					3441**71-73-77
14	3531	3162*/56-64-70	3335*/65-69-74	3386*/68-70-75	3441*/71-71-76
					3449**71-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2745 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07RtxwC	59	990	0	108	1820	0	138	2040	0
	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 07RtxwC OPKC

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
12	3532	3169*/56-64-71	3341*/65-69-74	3392*/69-70-76	3446*/71-71-76
					3457**72-73-78
10	3533	3177*/56-64-71	3346*/66-69-75	3397*/69-70-76	3451*/71-71-76
					3466**72-74-78
8	3533	3184*/57-64-71	3352*/66-69-75	3402*/70-70-76	3455*/71-71-76
					3473**73-74-79
6	3534	3191*/57-64-71	3358*/67-69-75	3407*/70-71-76	3460*/71-71-76
				3408**70-72-77	3481**73-75-79
4	3534	3198*/58-65-71	3363*/67-69-75	3412*/71-71-76	3464*/71-71-76
				3415**71-73-78	3488**74-75-80
2	3535	3206*/58-65-71	3368*/68-70-75	3417*/71-71-76	3468*/71-71-76
				3424**71-73-78	3494**74-76-80
0	3535	3213*/58-65-72	3373*/68-70-75	3421*/71-71-76	3472*/71-71-76
				3432**72-73-78	3499**75-76-80
-2	3535	3220*/59-65-72	3378*/69-70-75	3426*/71-71-76	3475*/71-71-76
				3440**72-74-79	3504**75-77-81
-4	3535	3227*/59-66-72	3383*/69-70-75	3431*/71-71-76	3479*/71-71-76
			3384**69-71-77	3448**72-74-79	3510**76-77-81
-6	3535	3233*/60-66-72	3387*/70-70-75	3435*/71-71-76	3483*/71-71-76
			3389**70-72-77	3456**73-75-79	3515**76-78-82
-8	3535	3239*/60-66-72	3391*/70-70-76	3439*/71-71-76	3486*/71-71-76
			3395**70-72-77	3464**73-75-80	3520**77-79-82
-10	3535	3244*/61-66-72	3394*/70-70-76	3442*/71-71-76	3489*/71-71-76
			3400**71-73-78	3471**74-76-80	3526**77-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2745 M LONG WITH 870 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE 0.17 PERCENT FOR TODA AND 0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
07RtxwC	59	990	0	108	1820	0	138	2040	0
	144	2340	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25L

OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2587	2835F/47-50-54	3013F/48-50-54	3075F/48-50-54	3138F/49-50-54
		2695**58-64-66	2751**68-74-75	2752**68-74-75	2752**69-74-75
58A	2644	2876F/48-51-55	3058F/50-51-55	3121F/50-51-55	3185F/50-51-55
		2744**58-64-66	2802**69-75-76	2810**70-76-77	2810**70-76-77
56A	2711	2919F/50-53-57	3111F/51-53-57	3174F/52-53-57	3239F/52-53-57
		2800**58-65-67	2861**69-75-76	2876**71-78-79	2876**72-78-79
54	2779	2962F/51-55-59	3157F/53-55-59	3225F/53-55-59	3295F/54-55-59
		2857**59-65-68	2923**69-75-77	2940**72-79-80	2947**73-80-81
52	2855	3009F/53-57-61	3208F/54-57-61	3276F/55-57-61	3350F/55-57-61
		2922**59-65-68	2991**69-76-78	3011**72-79-81	3028**76-83-84
50	2929	3056F/54-59-63	3257F/56-59-63	3329F/56-59-63	3403F/57-59-63
		2984**59-66-69	3058**69-76-78	3079**72-80-81	3099**76-83-85
48	3007	3102F/55-61-65	3307F/57-61-65	3381F/58-61-65	3493F/59-61-65
		3048**58-66-70	3125**69-77-79	3148**73-80-82	3168**76-84-85
46	3080	3145F/56-63-67	3355F/59-63-67	3448F/59-63-67	3541F/60-63-67
		3109**58-66-70	3190**69-77-79	3214**73-80-82	3236**76-84-86
44	3152	3188F/58-65-69	3402F/60-65-69	3513F/60-65-69	3588F/61-65-69
		3168**58-67-71	3253**69-77-80	3279**73-81-83	3304**76-84-86
42	3222	3231F/58-67-71	3484F/61-67-71	3560F/62-67-71	3636F/62-67-71
		3226**58-67-72	3315**69-78-81	3343**73-81-84	3369**76-85-87
40	3291	3272F/58-68-73	3529F/62-68-73	3604F/63-68-73	3681F/63-68-73
			3376**69-78-81	3405**73-82-84	3445**76-85-87
38	3356	3312F/59-69-74	3570F/63-70-74	3646F/64-70-74	3724F/64-70-74
			3445**69-78-81	3488**72-81-84	3517**76-85-87
36	3427	3354F/59-70-75	3612F/64-71-76	3689F/64-71-76	3768F/65-71-76
			3514**68-78-82	3545**72-82-85	3574**76-85-88
34	3496	3390F/59-70-75	3650F/63-71-76	3728F/64-71-76	3787F/65-71-76
			3565**68-79-82	3597**72-82-85	3628**76-86-88
32	3524	3413F/59-71-76	3673F/64-72-77	3751F/65-72-77	3787F/65-72-77
			3591**69-79-83	3624**72-83-86	3656**76-86-89
30	3525	3431F/60-71-76	3684F/64-72-77	3762F/65-72-77	3787F/66-72-77
			3597**69-80-83	3629**73-83-86	3661**77-87-89
28	3526	3450F/60-71-76	3694F/64-72-77	3773F/65-72-77	3787F/66-72-77
			3602**70-80-83	3634**73-84-87	3666**77-87-90
26	3527	3468F/60-71-76	3705F/64-72-77	3785F/65-72-77	3787F/66-72-77
			3607**70-81-84	3639**74-84-87	3671**77-88-90
24	3527	3487F/60-71-76	3716F/64-72-77	3787F/65-72-77	3787F/66-72-77
			3612**70-81-84	3645**74-85-87	3676**78-88-91
22	3528	3497F/60-71-76	3727F/64-72-77	3787F/65-72-77	3787F/66-72-77
			3617**71-82-85	3650**75-85-88	3681**78-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 483 M OF CLEARWAY AND 301 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

25L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25L

OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3529	3507F/60-72-76	3739F/64-72-77	3787F/65-72-77	3787F/66-72-77
			3622**71-82-85	3655**75-86-88	3686**79-89-92
18	3530	3517F/61-72-77	3750F/64-72-77	3787F/65-72-77	3787F/66-72-77
			3627**72-83-86	3660**76-86-89	3691**79-90-92
16	3530	3528F/61-72-77	3761F/64-72-77	3787F/65-72-77	3787F/66-72-77
			3632**72-83-86	3665**76-87-89	3696**80-90-93
14	3531	3538F/62-72-77	3773F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3534**61-73-77	3638**73-84-87	3670**77-87-90	3701**81-91-93
12	3532	3549F/62-72-77	3785F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3540**62-73-78	3643**73-84-87	3675**77-88-90	3706**81-92-94
10	3533	3560F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3545**62-74-78	3649**74-85-87	3681**78-88-91	3711**82-92-94
8	3533	3570F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3551**63-74-78	3654**74-85-88	3686**78-89-91	3716**82-93-95
6	3534	3581F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3556**63-75-79	3659**75-86-88	3691**79-89-92	3721**83-93-95
4	3534	3592F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3562**64-75-79	3664**75-86-89	3697**79-90-92	3726**83-94-96
2	3535	3603F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3567**64-76-80	3669**76-87-89	3701**80-91-93	3731**84-94-96
0	3535	3614F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3572**65-76-80	3675**76-87-90	3706**80-91-93	3736**84-95-97
-2	3535	3625F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3577**65-77-81	3680**77-88-90	3711**81-92-94	3741**85-96-97
-4	3535	3636F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3582**66-77-81	3685**77-89-91	3716**81-92-94	3745**85-96-98
-6	3535	3647F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3588**66-78-82	3690**78-89-91	3721**82-93-95	3749**86-97-98
-8	3535	3659F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3593**67-78-82	3695**79-90-92	3725**83-94-95	3754**87-98-99
-10	3535	3670F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3598**67-79-82	3700**79-90-92	3730**83-94-96	3758**87-98-00

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3400 M LONG WITH 483 M OF CLEARWAY AND 301 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

25L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25LtxwF OPKC

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2587	2408F/40-43-49	2575F/48-49-53	2634F/48-50-54	2694F/49-50-54
				2609**51-52-56	2635**54-56-59
58A	2644	2445F/41-44-50	2614F/48-50-54	2674F/50-51-55	2735F/50-51-55
				2658**51-53-57	2685**54-56-60
56A	2711	2488F/42-46-51	2659F/49-51-56	2720F/52-53-57	2781F/52-53-57
				2715**52-54-58	2743**55-57-60
54	2779	2532F/43-47-53	2705F/50-53-57	2766F/53-55-59	2829F/54-55-59
					2802**56-58-61
52	2855	2578F/44-48-54	2757F/52-54-59	2819F/54-56-60	2882F/55-57-61
					2867**57-58-62
50	2929	2624F/45-49-55	2808F/52-55-60	2870F/55-57-62	2934F/57-59-63
					2932**57-59-64
48	3007	2670F/46-50-57	2859F/53-56-62	2922F/56-58-63	2987F/58-60-65
46	3080	2713F/46-51-58	2906F/54-58-63	2970F/56-60-65	3036F/59-62-66
44	3152	2750F/47-52-59	2948F/54-59-64	3017F/57-61-66	3084F/59-63-68
42	3222	2788F/47-53-60	2988F/55-60-65	3058F/57-62-67	3129F/60-64-69
40	3291	2824F/48-54-61	3027F/55-60-67	3098F/58-63-68	3170F/60-65-70
38	3356	2858F/48-55-62	3062F/56-61-68	3134F/58-63-69	3207F/61-66-71
36	3427	2893F/48-56-63	3100F/56-62-69	3172F/59-64-70	3246F/61-67-72
34	3496	2923F/48-56-64	3132F/56-63-70	3205F/59-65-71	3280F/62-67-73
32	3524	2941F/49-57-65	3152F/57-63-70	3225F/59-66-72	3302F/62-68-74
30	3525	2950F/49-57-65	3161F/57-64-70	3235F/60-66-72	3312F/62-68-74
28	3526	2958F/49-57-65	3171F/57-64-71	3245F/60-66-72	3323F/63-68-74
26	3527	2967F/50-57-66	3180F/58-64-71	3255F/60-66-73	3334F/63-69-74
24	3527	2975F/50-58-66	3190F/58-64-71	3265F/61-67-73	3345F/63-69-75
22	3528	2984F/50-58-66	3199F/58-65-71	3275F/61-67-73	3356F/63-69-75
20	3529	2993F/50-58-66	3209F/58-65-71	3285F/61-67-73	3366F/64-70-75
18	3530	3002F/51-59-66	3219F/59-65-72	3296F/61-68-74	3377F/64-70-75
16	3530	3010F/51-59-67	3229F/59-66-72	3307F/62-68-74	3389F/64-70-76
14	3531	3019F/51-59-67	3239F/59-66-72	3318F/62-68-74	3400F/65-70-76
12	3532	3029F/52-59-67	3249F/60-66-72	3329F/62-68-74	3412F/65-71-76
10	3533	3038F/52-60-67	3260F/60-67-73	3340F/63-69-74	3434F/65-71-76
8	3533	3047F/52-60-68	3270F/60-67-73	3351F/63-69-75	3456F/65-71-76
6	3534	3057F/52-60-68	3281F/61-67-73	3363F/63-69-75	3478F/65-71-76
4	3534	3066F/53-61-68	3292F/61-67-73	3374F/64-70-75	3494F/66-71-76
2	3535	3075F/53-61-68	3303F/61-68-74	3385F/64-70-75	3505F/66-72-76
0	3535	3085F/53-61-68	3314F/62-68-74	3397F/64-70-76	3517F/66-72-77
-2	3535	3094F/54-61-69	3325F/62-68-74	3408F/65-71-76	3528F/67-72-77
-4	3535	3104F/54-62-69	3336F/62-69-74	3428F/65-71-76	3540F/67-72-77
					3537**67-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2440 M LONG WITH 483 M OF CLEARWAY AND 301 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

25LtxwF NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25LtxwF OPKC

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-6 3535 3114F/54-62-69 3348F/63-69-75 3450F/65-71-76 3552F/67-72-77

3543**68-73-78

-8 3535 3124F/55-62-69 3359F/63-69-75 3473F/65-71-76 3563F/67-72-77

3548**68-74-78

-10 3535 3134F/55-63-70 3371F/63-70-75 3491F/65-71-76 3576F/67-72-77

3554**69-74-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2440 M LONG WITH 483 M OF CLEARWAY AND 301 M OF STOPWAY

RUNWAY SLOPES ARE -0.17 PERCENT FOR TODA AND -0.17 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

25LtxwF NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25R OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2587	2515*/47-47-52	2580*/49-49-53	2599*/49-50-54	2618*/49-50-54
		2570**54-58-61	2663**62-67-69	2691**65-70-72	2720**68-73-74
58A	2644	2569*/49-49-53	2635*/51-51-55	2655*/50-51-55	2675*/50-51-55
		2620**55-59-62	2714**63-68-70	2743**66-71-73	2772**69-74-75
56A	2711	2631*/50-50-55	2699*/53-53-57	2719*/52-53-57	2740*/52-53-57
		2677**56-60-63	2773**64-69-71	2803**67-72-73	2832**70-75-76
54	2779	2693*/52-52-57	2763*/54-54-59	2784*/54-55-59	2805*/54-55-59
		2735**57-60-64	2834**65-70-72	2865**68-73-74	2895**71-76-77
52	2855	2764*/54-54-59	2835*/56-56-61	2857*/56-57-61	2879*/56-57-61
		2799**58-61-65	2902**66-70-73	2935**69-74-75	2967**72-77-78
50	2929	2833*/56-56-61	2906*/58-58-63	2929*/59-59-63	2951*/58-59-63
		2859**58-61-65	2968**67-71-74	3003**70-74-77	3036**73-78-79
48	3007	2905*/58-58-63	2980*/60-60-65	3004*/61-61-65	3025*/60-61-65
		2921**58-62-66	3034**67-72-74	3070**71-75-77	3106**74-78-80
46	3080	2972*/58-60-65	3049*/62-62-67	3074*/63-63-67	3096*/62-63-67
		2979**58-62-66	3095**67-72-75	3133**71-75-78	3171**74-78-81
44	3152	3032*/58-61-66	3116*/64-64-68	3141*/65-65-69	3164*/64-65-69
		3035**58-62-67	3155**67-72-75	3195**71-75-78	3233**74-79-81
42	3222	3088*/58-63-68	3182*/66-66-70	3208*/66-66-71	3232*/66-67-71
			3213**67-72-76	3253**71-76-79	3294**74-79-82
40	3291	3134*/58-64-69	3246*/67-67-72	3272*/68-68-73	3297*/67-68-73
			3269**67-73-77	3312**71-76-79	3355**74-79-82
38	3356	3176*/58-65-70	3306*/68-69-73	3335*/69-69-74	3361*/69-70-74
			3324**67-73-77	3368**71-76-80	3413**74-80-83
36	3427	3220*/58-66-72	3367*/68-70-75	3399*/71-71-76	3431*/70-71-76
			3380**68-73-78	3433**71-76-80	3494**74-80-83
34	3496	3259*/58-67-73	3427*/68-71-76	3470*/71-71-76	3499*/70-71-76
			3440**67-73-78	3500**70-77-80	3545**74-80-83
32	3524	3281*/59-67-73	3462*/68-71-76	3500*/71-71-76	3527*/71-72-77
			3476**67-74-78	3525**71-77-81	3571**74-80-84
30	3525	3289*/59-67-73	3466*/68-71-76	3502*/71-71-76	3529*/71-72-77
			3484**68-74-78	3531**71-77-81	3576**74-81-84
28	3526	3297*/59-68-74	3470*/69-71-76	3504*/72-72-76	3531*/71-72-77
			3489**68-75-79	3536**71-78-82	3582**75-81-85
26	3527	3305*/60-68-74	3474*/69-71-76	3507*/72-72-76	3533*/71-72-77
			3495**69-75-79	3541**72-79-82	3587**75-82-85
24	3527	3312*/60-68-74	3478*/69-71-76	3509*/72-72-76	3535*/71-72-77
			3500**69-76-80	3546**72-79-83	3592**76-83-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 460 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 580 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE -0.20 PERCENT FOR TODA AND -0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	46	860	0	126	3075	0	190	4550	0
	200	4785	0	293	4940	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 100 FT

RUNWAY 25R

OPKC

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

JINNAH INTL

KARACHI

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3528	3320*/60-68-74	3482*/70-71-76	3511*/72-72-76	3537*/71-72-77
			3505**69-76-80	3551**73-80-83	3598**76-83-86
20	3529	3328*/61-68-74	3484*/71-71-76	3513*/72-72-76	3539*/71-72-77
			3510**70-77-81	3556**73-80-84	3603**77-84-87
18	3530	3336*/61-69-74	3486*/71-71-76	3515*/72-72-76	3541*/71-72-77
			3515**70-77-81	3562**74-81-84	3608**77-84-87
16	3530	3344*/61-69-75	3489*/71-71-76	3517*/72-72-77	3543*/71-72-77
			3521**71-78-81	3567**74-81-84	3613**78-85-88
14	3531	3352*/62-69-75	3491*/71-71-76	3519*/72-72-77	3545*/71-72-77
			3526**71-78-82	3573**75-82-85	3619**78-85-88
12	3532	3361*/62-69-75	3493*/71-71-76	3522*/72-72-77	3548*/71-72-77
			3531**72-79-82	3578**75-82-85	3624**79-86-89
10	3533	3369*/63-70-75	3495*/71-71-76	3524*/72-72-77	3550*/71-72-77
			3536**72-79-83	3584**76-83-86	3630**79-86-89
8	3533	3376*/63-70-75	3497*/71-71-76	3526*/72-72-77	3552*/71-72-77
			3542**73-80-83	3589**76-83-86	3635**80-87-90
6	3534	3380*/63-70-75	3499*/71-71-76	3528*/72-72-77	3554*/71-72-77
		3381**63-70-76	3547**73-80-84	3594**77-84-87	3640**80-88-90
4	3534	3383*/64-70-75	3501*/71-71-76	3530*/72-72-77	3556*/71-72-77
		3386**64-71-76	3552**74-81-84	3599**77-85-87	3646**81-88-91
2	3535	3386*/64-70-75	3503*/71-71-76	3532*/72-72-77	3557*/71-72-77
		3392**64-71-77	3558**74-82-85	3604**78-85-88	3651**81-89-91
0	3535	3390*/65-70-76	3505*/71-71-76	3533*/72-72-77	3559*/71-72-77
		3397**65-72-77	3563**75-82-85	3610**78-86-89	3656**82-89-92
-2	3535	3393*/66-70-76	3506*/72-72-76	3535*/72-72-77	3560*/71-72-77
		3402**65-73-78	3568**75-83-86	3615**79-86-89	3661**83-90-92
-4	3535	3396*/66-70-76	3508*/72-72-76	3535*/71-72-77	3562*/71-72-77
		3407**66-73-78	3573**76-83-86	3620**79-87-90	3666**83-91-93
-6	3535	3399*/67-70-76	3509*/72-72-76	3537*/71-72-77	3563*/71-72-77
		3412**66-74-78	3578**76-84-87	3625**80-88-90	3671**84-91-93
-8	3535	3402*/67-70-76	3511*/72-72-76	3538*/71-72-77	3565*/71-72-77
		3420**67-74-79	3583**77-85-88	3630**81-88-91	3676**84-92-94
-10	3535	3405*/68-71-76	3512*/72-72-76	3539*/71-72-77	3566*/71-72-77
		3427**67-75-79	3588**78-85-88	3635**81-89-91	3681**85-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 460 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 580 M OF CLEARWAY AND 305 M OF STOPWAY

RUNWAY SLOPES ARE -0.20 PERCENT FOR TODA AND -0.20 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
25R	46	860	0	126	3075	0	190	4550	0
	200	4785	0	293	4940	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 18L OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2531	2531*/47-48-52	2612*/47-48-52	2642*/47-48-52	2671*/47-48-52
			2620**56-59-62	2644**60-63-65	2666**63-67-69
58A	2587	2577*/49-49-53	2661*/48-50-54	2692*/49-50-54	2723*/49-50-54
			2669**57-60-63	2694**60-64-66	2717**64-68-70
56A	2652	2630*/50-51-55	2719*/50-51-56	2751*/50-51-56	2782*/51-51-56
			2726**58-61-64	2751**61-65-67	2775**65-69-71
54A	2717	2682*/52-52-56	2777*/52-53-57	2809*/52-53-57	2841*/52-53-57
			2783**59-62-65	2810**62-66-68	2834**66-69-71
52	2784	2736*/54-54-58	2836*/53-55-59	2870*/54-55-59	2902*/54-55-59
			2843**60-62-66	2870**63-66-69	2896**67-70-72
50	2856	2794*/55-55-60	2895*/55-57-61	2931*/55-57-61	2965*/56-57-61
			2906**61-63-67	2935**64-67-70	2962**68-71-73
48	2934	2854*/56-57-61	2957*/56-59-63	2994*/57-59-63	3030*/57-59-63
			2974**62-64-68	3003**65-68-71	3031**72-72-74
46	3009	2907*/56-58-63	3017*/57-61-66	3055*/58-61-66	3092*/59-61-66
			3039**63-65-69	3070**68-69-72	3099**70-73-75
44	3079	2953*/57-59-64	3079*/59-63-67	3112*/59-63-67	3151*/60-63-67
			3101**65-66-70	3133**67-70-73	3163**71-73-76
42	3147	2996*/57-60-66	3147*/62-65-69	3167*/60-65-69	3207*/61-65-69
			3160**65-66-71	3193**68-70-74	3224**71-74-77
40	3216	3041*/57-61-67	3216*/65-67-71	3223*/62-67-71	3264*/62-67-71
			3217**65-67-71	3253**69-71-75	3286**72-75-78
38	3278	3080*/57-62-68	3262*/66-68-72	3278*/63-68-73	3317*/63-68-73
				3306**69-71-75	3341**72-75-79
36	3346	3121*/58-63-69	3308*/66-69-73	3346*/66-70-74	3372*/64-70-74
				3362**69-71-76	3399**72-75-79
34	3405	3157*/58-64-70	3349*/66-70-74	3405*/68-71-76	3431*/65-71-76
				3411**69-72-76	3468**72-75-79
32	3474	3191*/58-65-71	3389*/66-70-75	3474*/68-71-76	3494*/65-71-76
				3481**68-72-76	3521**72-76-80
30	3488	3205*/58-65-71	3404*/67-71-76	3488*/67-71-76	3506*/65-71-76
				3497**69-72-77	3536**72-76-80
28	3488	3213*/59-65-72	3414*/67-71-76	3488*/67-71-76	3512*/65-71-76
				3502**69-73-77	3541**73-77-80
26	3489	3221*/59-66-72	3430*/67-71-76	3489*/66-71-76	3518*/65-71-76
				3507**70-73-77	3546**73-77-81
24	3489	3229*/59-66-72	3444*/67-71-76	3489*/66-71-76	3523*/65-71-76
				3513**70-74-78	3552**74-78-81
22	3490	3237*/60-66-72	3459*/68-71-76	3490*/65-71-76	3529*/65-71-76
				3518**71-74-78	3557**74-78-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 240 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18L	25	244	0	23	440	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 18L

OPLA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

ALLAMA IQBAL INTL
LAHORE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3490	3246*/60-66-72	3473*/68-71-76	3490*/65-71-76	3535*/65-71-76
				3524**71-75-79	3562**75-79-82
18	3490	3254*/60-67-73	3487*/68-71-76	3495*/65-71-76	3541*/66-71-76
				3529**72-75-79	3568**75-79-83
16	3491	3262*/61-67-73	3491*/68-71-76	3500*/65-71-76	3546*/66-71-76
			3493**68-72-76	3534**72-76-80	3573**76-80-83
14	3491	3270*/61-67-73	3491*/67-71-76	3506*/65-71-76	3552*/66-71-76
			3499**69-72-77	3539**73-76-80	3578**76-80-84
12	3492	3279*/61-67-73	3492*/67-71-76	3512*/65-71-76	3558*/66-71-76
			3505**69-73-77	3545**73-77-81	3583**77-81-84
10	3492	3288*/62-68-73	3492*/66-71-76	3518*/65-71-76	3564*/66-71-76
			3511**70-73-77	3551**73-77-81	3589**77-82-85
8	3493	3296*/62-68-73	3493*/66-71-76	3524*/65-71-76	3570*/66-71-76
			3516**70-74-78	3556**74-78-81	3595**78-82-85
6	3493	3305*/62-68-74	3493*/65-71-76	3530*/65-71-76	3575*/66-71-76
			3522**71-74-78	3562**74-78-82	3600**78-83-86
4	3493	3314*/63-68-74	3493*/65-71-76	3536*/65-71-76	3581*/66-71-76
			3528**71-75-79	3568**75-79-82	3606**79-83-86
2	3494	3323*/63-69-74	3496*/65-71-76	3542*/65-71-76	3587*/66-71-76
			3533**72-75-79	3573**75-80-83	3611**79-84-87
0	3494	3332*/64-69-74	3501*/65-71-76	3548*/65-71-76	3593*/66-71-76
			3538**72-76-80	3578**76-80-83	3617**80-84-87
-2	3494	3341*/64-69-74	3507*/65-71-76	3553*/66-71-76	3598*/66-71-76
			3544**73-77-80	3584**77-81-84	3622**80-85-88
-4	3494	3350*/64-69-75	3513*/65-71-76	3559*/66-71-76	3604*/66-71-76
			3549**73-77-81	3589**77-81-84	3627**81-86-88
-6	3494	3359*/65-69-75	3519*/65-71-76	3565*/66-71-76	3610*/66-71-76
			3555**74-78-81	3594**78-82-85	3632**81-86-89
-8	3494	3368*/65-70-75	3524*/65-71-76	3570*/66-71-76	3615*/67-71-76
			3560**74-78-82	3600**78-83-86	3638**82-87-89
-10	3494	3377*/65-70-75	3530*/65-71-76	3576*/66-71-76	3621*/67-71-76
			3566**75-79-82	3606**79-83-86	3643**82-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 240 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18L	25	244	0	23	440	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 18LtxwU OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL

LAHORE

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2531	2204*/35-36-43	2351*/42-42-47	2396*/43-43-48	2441*/45-45-49
58A	2587	2239*/35-37-44	2391*/43-43-48	2438*/45-45-50	2484*/46-46-51
56A	2652	2279*/36-39-45	2438*/44-44-50	2486*/46-46-51	2532*/47-47-52
54A	2717	2319*/37-40-46	2484*/45-45-51	2533*/47-47-52	2581*/49-49-54
52	2784	2361*/38-41-48	2532*/47-47-53	2582*/48-48-54	2631*/50-50-55
50	2856	2405*/39-42-49	2581*/48-48-54	2634*/50-50-55	2685*/52-52-57
48	2934	2451*/39-43-51	2631*/49-49-56	2688*/51-51-57	2741*/53-53-59
46	3009	2494*/40-44-52	2678*/49-51-57	2739*/52-53-59	2794*/54-54-60
44	3079	2535*/41-45-53	2723*/50-52-58	2785*/53-54-60	2844*/56-56-62
42	3147	2575*/42-46-55	2766*/51-53-60	2828*/54-55-61	2889*/56-57-63
40	3216	2617*/42-47-56	2810*/52-54-61	2872*/54-56-63	2934*/57-58-64
38	3278	2654*/43-48-57	2845*/52-55-62	2909*/55-57-64	2972*/57-59-65
36	3346	2693*/44-49-58	2883*/52-56-63	2948*/55-58-65	3013*/58-60-66
34	3405	2727*/45-50-59	2916*/53-56-64	2982*/55-58-66	3047*/58-61-67
32	3474	2756*/45-51-60	2948*/53-57-65	3014*/56-59-67	3081*/58-61-68
30	3488	2768*/45-51-60	2960*/53-57-65	3027*/56-60-67	3094*/59-62-69
28	3488	2775*/45-51-61	2968*/53-58-65	3035*/56-60-67	3103*/59-62-69
26	3489	2783*/46-52-61	2976*/54-58-66	3043*/56-60-67	3111*/59-62-69
24	3489	2790*/46-52-61	2984*/54-58-66	3052*/57-60-68	3120*/60-62-69
22	3490	2797*/46-52-61	2992*/54-58-66	3060*/57-61-68	3128*/60-63-69
20	3490	2805*/47-52-61	3001*/55-59-66	3068*/58-61-68	3137*/60-63-70
18	3490	2812*/47-53-62	3009*/55-59-67	3077*/58-61-68	3145*/61-63-70
16	3491	2820*/47-53-62	3017*/55-59-67	3085*/58-61-68	3154*/61-64-70
14	3491	2828*/47-53-62	3026*/56-60-67	3093*/59-62-69	3163*/61-64-70
12	3492	2835*/48-53-62	3034*/56-60-67	3102*/59-62-69	3172*/62-64-71
10	3492	2843*/48-54-62	3043*/56-60-67	3111*/59-62-69	3180*/62-64-71
8	3493	2851*/48-54-63	3051*/57-60-68	3120*/60-62-69	3189*/62-65-71
6	3493	2859*/49-54-63	3060*/57-61-68	3129*/60-63-69	3198*/63-65-71
4	3493	2867*/49-54-63	3068*/57-61-68	3137*/60-63-70	3207*/63-65-71
2	3494	2875*/49-55-63	3077*/58-61-68	3146*/61-63-70	3216*/64-65-72
0	3494	2883*/50-55-63	3086*/58-61-68	3155*/61-64-70	3226*/64-66-72
-2	3494	2891*/50-55-64	3094*/59-62-69	3164*/61-64-70	3235*/64-66-72
-4	3494	2899*/50-55-64	3103*/59-62-69	3173*/62-64-71	3244*/65-66-72
-6	3494	2907*/51-56-64	3112*/59-62-69	3182*/62-64-71	3253*/65-67-73
-8	3494	2915*/51-56-64	3121*/60-62-69	3191*/63-65-71	3262*/66-67-73
-10	3494	2924*/51-56-64	3130*/60-63-70	3200*/63-65-71	3271*/66-67-73

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2390 M LONG WITH 240 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18LtxwU	25	244	0	23	440	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 712 FT PCN LIMITED TOGW 290298 RUNWAY 18R OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2531	2489F/44-47-51	2656F/47-48-52	2714F/47-48-52	2774F/47-48-52
			2588**52-55-58	2612**55-58-61	2634**58-62-64
58A	2587	2527F/44-48-52	2696F/48-50-54	2755F/49-50-54	2816F/49-50-54
			2637**53-56-59	2662**56-59-62	2684**59-62-65
56A	2652	2569F/45-49-53	2743F/50-51-56	2803F/50-51-56	2864F/51-51-56
			2694**54-57-60	2719**57-60-63	2742**60-63-66
54A	2717	2612F/46-50-55	2789F/52-53-57	2850F/52-53-57	2912F/52-53-57
			2750**55-57-61	2776**58-61-64	2799**61-64-67
52	2784	2657F/47-51-56	2838F/53-55-59	2899F/54-55-59	2962F/54-55-59
			2809**55-58-62	2835**58-61-65	2859**61-65-68
50	2856	2703F/48-52-57	2889F/55-57-61	2952F/55-57-61	3015F/56-57-61
			2872**56-59-63	2898**59-62-66	2923**62-66-69
48	2934	2747F/48-53-59	2935F/56-59-63	3001F/57-59-63	3067F/57-59-63
				2964**59-63-67	2991**62-66-70
46	3009	2788F/49-54-60	2979F/56-60-65	3045F/58-61-66	3113F/59-61-66
				3025**59-63-67	3055**63-67-70
44	3079	2827F/49-55-61	3020F/57-61-66	3088F/59-63-67	3157F/60-63-67
				3083**59-64-68	3114**63-67-71
42	3147	2865F/50-56-62	3061F/57-62-67	3129F/60-64-69	3199F/61-65-69
					3171**63-68-72
40	3216	2904F/50-57-63	3103F/58-63-68	3172F/60-65-70	3242F/62-67-71
					3228**63-68-72
38	3278	2939F/50-58-64	3140F/58-64-69	3210F/61-66-71	3281F/63-68-73
					3279**63-68-73
36	3346	2976F/51-59-65	3179F/58-65-70	3250F/61-67-72	3324F/64-69-74
34	3405	3009F/51-59-66	3214F/59-66-71	3285F/61-68-73	3362F/64-70-75
32	3474	3039F/51-60-67	3247F/59-66-72	3320F/62-69-74	3398F/64-71-76
30	3488	3052F/51-60-68	3261F/59-67-73	3336F/62-69-74	3416F/65-71-76
28	3488	3061F/52-61-68	3270F/60-67-73	3346F/62-69-75	3436F/65-71-76
26	3489	3069F/52-61-68	3280F/60-67-73	3356F/63-69-75	3456F/65-71-76
24	3489	3078F/52-61-68	3290F/60-68-73	3367F/63-70-75	3477F/65-71-76
22	3490	3087F/53-61-68	3300F/61-68-74	3377F/63-70-75	3492F/65-71-76
					3491**65-71-76
20	3490	3096F/53-62-69	3310F/61-68-74	3388F/64-70-75	3503F/65-71-76
					3496**66-72-76
18	3490	3104F/53-62-69	3321F/61-68-74	3399F/64-71-76	3513F/66-71-76
					3501**66-72-77
16	3491	3113F/53-62-69	3331F/62-69-74	3409F/64-71-76	3524F/66-71-76
					3507**66-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 274 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

18R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT PCN LIMITED TOGW 290298 RUNWAY 18R OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL

LAHORE

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

14	3491	3122F/54-63-69	3341F/62-69-74	3428F/64-71-76	3535F/66-71-76
					3512**67-73-78
12	3492	3132F/54-63-70	3352F/62-69-75	3449F/64-71-76	3546F/66-71-76
					3518**67-74-78
10	3492	3141F/54-63-70	3363F/62-70-75	3470F/65-71-76	3557F/66-71-76
					3524**68-74-79
8	3493	3150F/55-63-70	3374F/63-70-75	3489F/65-71-76	3568F/66-71-76
					3529**68-75-79
6	3493	3160F/55-64-70	3385F/63-70-75	3500F/65-71-76	3579F/66-71-76
				3496**65-72-76	3534**69-76-80
4	3493	3170F/55-64-70	3396F/63-71-76	3511F/65-71-76	3591F/66-71-76
				3502**66-72-77	3540**69-76-80
2	3494	3179F/56-64-71	3407F/64-71-76	3522F/65-71-76	3602F/66-71-76
				3508**66-73-77	3545**70-77-80
0	3494	3189F/56-65-71	3424F/64-71-76	3533F/65-71-76	3613F/66-71-76
				3513**67-73-78	3551**70-77-81
-2	3494	3198F/56-65-71	3445F/64-71-76	3545F/66-71-76	3625F/66-71-76
				3519**67-74-78	3556**71-78-81
-4	3494	3208F/57-65-71	3466F/64-71-76	3556F/66-71-76	3637F/66-71-76
				3524**68-74-79	3562**71-78-82
-6	3494	3218F/57-65-72	3487F/64-71-76	3567F/66-71-76	3648F/66-71-76
				3530**68-75-79	3567**72-79-82
-8	3494	3228F/57-66-72	3498F/65-71-76	3578F/66-71-76	3660F/67-71-76
			3496**65-72-76	3535**69-76-79	3572**72-80-83
-10	3494	3238F/58-66-72	3510F/65-71-76	3590F/66-71-76	3672F/67-71-76
			3502**65-72-77	3540**69-76-80	3578**73-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 274 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

18R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT PCN LIMITED TOGW 290298 RUNWAY 36L OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2531	2471F/43-46-50	2650F/47-48-52	2708F/47-48-52	2768F/48-48-52
			2585**52-55-58	2609**55-58-61	2632**58-61-64
58A	2587	2508F/44-47-51	2691F/48-50-54	2749F/49-50-54	2810F/49-50-54
			2634**53-55-59	2659**56-59-61	2682**59-62-64
56A	2652	2550F/45-48-53	2737F/50-51-56	2797F/50-51-56	2858F/51-51-56
			2691**54-56-60	2717**57-59-62	2740**60-63-65
54A	2717	2592F/46-49-54	2783F/52-53-57	2844F/52-53-57	2905F/52-53-57
			2748**54-57-61	2773**58-60-63	2797**61-64-66
52	2784	2637F/47-50-55	2825F/53-55-59	2889F/54-55-59	2953F/54-55-59
			2804**55-57-61	2832**58-61-64	2857**61-64-67
50	2856	2684F/48-52-57	2870F/55-57-61	2934F/55-57-61	3000F/56-57-61
			2863**55-58-62	2892**58-62-65	2920**62-65-68
48	2934	2729F/48-53-58	2916F/55-59-63	2982F/57-59-63	3048F/57-59-63
				2956**58-62-66	2984**62-66-69
46	3009	2770F/49-54-59	2960F/56-60-64	3026F/58-61-66	3093F/59-61-66
				3017**59-62-66	3046**62-66-69
44	3079	2808F/49-54-61	3001F/56-61-66	3068F/59-63-67	3137F/60-63-67
					3106**62-66-70
42	3147	2846F/49-55-62	3041F/57-62-67	3109F/59-64-68	3179F/61-65-69
					3162**62-67-71
40	3216	2886F/50-56-63	3083F/57-63-68	3152F/60-65-70	3222F/62-67-71
					3219**62-67-71
38	3278	2921F/50-57-64	3120F/58-63-69	3190F/60-66-71	3261F/63-68-72
36	3346	2958F/50-58-65	3159F/58-64-70	3230F/61-66-72	3303F/63-69-73
34	3405	2990F/51-59-66	3194F/58-65-71	3265F/61-67-73	3340F/64-69-74
32	3474	3020F/51-59-67	3227F/59-66-72	3299F/61-68-74	3376F/64-70-75
30	3488	3033F/51-60-67	3241F/59-66-72	3314F/62-68-74	3392F/64-70-76
28	3488	3042F/51-60-67	3250F/59-66-72	3325F/62-69-74	3402F/65-71-76
26	3489	3050F/52-60-68	3260F/60-67-73	3335F/62-69-74	3415F/65-71-76
24	3489	3059F/52-61-68	3269F/60-67-73	3345F/63-69-75	3435F/65-71-76
22	3490	3067F/52-61-68	3279F/60-67-73	3355F/63-69-75	3455F/65-71-76
20	3490	3076F/53-61-68	3289F/61-68-73	3366F/63-70-75	3476F/65-71-76
18	3490	3085F/53-61-68	3299F/61-68-74	3377F/64-70-75	3492F/65-71-76
16	3491	3094F/53-62-69	3309F/61-68-74	3387F/64-70-75	3502F/66-71-76
					3496**66-72-76
14	3491	3103F/53-62-69	3320F/62-68-74	3398F/64-71-76	3513F/66-71-76
					3502**66-72-77
12	3492	3112F/54-62-69	3330F/62-69-74	3409F/65-71-76	3524F/66-71-76
					3507**67-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 244 M OF CLEARWAY AND 244 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

36L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT PCN LIMITED TOGW 290298 RUNWAY 36L OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL

LAHORE

777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

10	3492	3121F/54-63-69	3341F/62-69-74	3428F/65-71-76	3535F/66-71-76
					3513**67-73-78
8	3493	3131F/54-63-70	3352F/63-69-75	3449F/65-71-76	3546F/66-71-76
					3519**68-74-78
6	3493	3140F/55-63-70	3363F/63-70-75	3470F/65-71-76	3557F/66-71-76
					3524**68-75-79
4	3493	3149F/55-63-70	3374F/63-70-75	3489F/65-71-76	3568F/66-71-76
					3530**69-75-79
2	3494	3159F/55-64-70	3385F/64-70-75	3500F/66-71-76	3580F/66-71-76
				3497**66-72-76	3535**69-76-80
0	3494	3168F/56-64-70	3396F/64-71-76	3511F/66-71-76	3591F/66-71-76
				3502**66-72-77	3540**70-76-80
-2	3494	3178F/56-64-71	3407F/64-71-76	3522F/66-71-76	3602F/67-71-76
				3508**66-73-77	3546**70-77-80
-4	3494	3188F/56-65-71	3424F/64-71-76	3534F/66-71-76	3614F/67-71-76
				3514**67-73-78	3551**71-77-81
-6	3494	3198F/57-65-71	3446F/65-71-76	3545F/66-71-76	3626F/67-71-76
				3519**67-74-78	3557**71-78-81
-8	3494	3208F/57-65-71	3467F/65-71-76	3556F/66-71-76	3637F/67-71-76
				3525**68-74-79	3562**72-78-82
-10	3494	3218F/57-65-72	3488F/65-71-76	3568F/66-71-76	3649F/67-71-76
				3530**68-75-79	3568**72-79-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 244 M OF CLEARWAY AND 244 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

36L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 36R

OPLA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

ALLAMA IQBAL INTL

LAHORE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2531	2507*/47-47-51	2591*/48-48-52	2615*/48-48-52	2639*/48-48-52
		2510**49-50-54	2612**56-58-61	2641**59-63-65	2667**63-67-69
58A	2587	2556*/49-49-53	2643*/50-50-54	2668*/50-50-54	2692*/50-50-54
		2558**51-51-55	2661**57-59-62	2691**60-64-66	2717**64-68-70
56A	2652	2612*/50-50-54	2703*/51-51-56	2729*/51-51-56	2754*/51-51-56
		2614**52-52-56	2719**57-60-63	2749**61-64-67	2776**65-69-71
54A	2717	2668*/52-52-56	2763*/53-53-57	2790*/53-53-57	2816*/53-53-57
			2776**58-61-64	2807**62-65-68	2835**66-70-72
52	2784	2726*/53-53-58	2825*/55-55-59	2853*/55-55-59	2880*/55-55-59
			2835**59-61-65	2867**63-66-69	2897**67-70-73
50	2856	2787*/55-55-60	2885*/56-57-61	2920*/57-57-61	2947*/57-57-61
			2898**61-62-66	2932**64-67-70	2963**68-71-74
48	2934	2853*/56-57-61	2954*/58-59-63	2990*/59-59-63	3018*/59-59-63
			2965**62-63-67	3000**65-68-71	3032**69-72-75
46	3009	2909*/56-58-63	3021*/60-61-66	3051*/60-61-66	3088*/61-61-66
			3030**64-64-68	3066**66-68-72	3100**70-73-76
44	3079	2958*/56-59-64	3084*/61-63-67	3115*/62-63-67	3154*/63-63-67
			3092**65-65-69	3129**67-69-73	3164**71-74-76
42	3147	3006*/57-60-66	3147*/64-65-69	3177*/63-65-69	3208*/63-65-69
			3151**65-66-70	3190**68-70-74	3225**72-74-77
40	3216	3054*/57-62-67	3210*/65-66-71	3240*/65-67-71	3272*/65-67-71
				3250**69-70-74	3286**72-75-78
38	3278	3096*/57-63-68	3257*/66-68-72	3297*/67-68-73	3331*/67-68-73
				3303**69-71-75	3341**72-75-79
36	3346	3141*/57-64-70	3307*/66-69-73	3366*/69-70-74	3394*/68-70-74
				3359**69-71-75	3399**72-75-79
34	3405	3180*/57-65-71	3352*/66-70-75	3410*/69-71-76	3473*/70-71-76
				3408**69-71-76	3468**72-75-79
32	3474	3217*/57-66-72	3395*/66-71-76	3479*/69-71-76	3523*/70-71-76
				3476**69-71-76	3521**72-76-80
30	3488	3231*/58-66-72	3410*/66-71-76	3496*/69-71-76	3536*/70-71-76
				3494**69-72-76	3536**72-76-80
28	3488	3238*/58-66-72	3421*/67-71-76	3504*/70-71-76	3540*/70-71-76
				3499**69-72-77	3541**73-77-80
26	3489	3245*/58-66-72	3433*/67-71-76	3512*/70-71-76	3544*/70-71-76
				3505**70-73-77	3546**73-77-81
24	3489	3252*/59-67-72	3444*/67-71-76	3519*/71-71-76	3548*/70-71-76
				3510**70-73-78	3552**74-78-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 305 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36R	36	620	0	35	790	0	53	800	0
	54	990	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 36R

OPLA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

ALLAMA IQBAL INTL
LAHORE

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3490	3258*/59-67-73	3455*/68-71-76	3516*/70-71-76	3552*/70-71-76
				3515**71-74-78	3557**74-78-82
20	3490	3265*/59-67-73	3466*/68-71-76	3520*/70-71-76	3556*/70-71-76
				3521**71-74-78	3562**75-79-82
18	3490	3272*/60-67-73	3476*/68-71-76	3524*/70-71-76	3560*/70-71-76
				3526**72-75-79	3568**75-79-83
16	3491	3280*/60-67-73	3486*/69-71-76	3528*/70-71-76	3564*/70-71-76
				3531**72-75-79	3573**76-80-83
14	3491	3287*/61-68-73	3493*/69-71-76	3532*/70-71-76	3576*/71-71-76
			3492**69-71-76	3537**73-76-80	3578**76-80-84
12	3492	3294*/61-68-73	3501*/70-71-76	3536*/70-71-76	3580*/71-71-76
			3498**70-72-76	3542**73-77-80	3584**77-81-84
10	3492	3302*/61-68-74	3508*/70-71-76	3541*/70-71-76	3584*/71-71-76
			3504**70-73-77	3548**73-77-81	3589**77-82-85
8	3493	3309*/62-68-74	3515*/71-71-76	3545*/70-71-76	3588*/71-71-76
			3510**70-73-77	3553**74-78-81	3595**78-82-85
6	3493	3317*/62-68-74	3513*/70-71-76	3549*/70-71-76	3592*/71-71-76
			3516**71-74-78	3559**74-78-82	3600**78-83-86
4	3493	3324*/63-69-74	3517*/70-71-76	3561*/71-71-76	3595*/71-71-76
			3521**71-74-78	3565**75-79-82	3606**79-83-86
2	3494	3332*/63-69-74	3521*/70-71-76	3565*/71-71-76	3599*/71-71-76
			3527**72-75-79	3570**75-79-83	3612**79-84-87
0	3494	3339*/63-69-74	3525*/70-71-76	3569*/71-71-76	3603*/71-71-76
			3532**72-75-79	3576**76-80-83	3617**80-84-87
-2	3494	3347*/64-69-75	3529*/70-71-76	3572*/71-71-76	3606*/71-71-76
			3538**73-76-80	3581**77-81-84	3622**80-85-88
-4	3494	3354*/64-69-75	3533*/70-71-76	3576*/71-71-76	3610*/71-71-76
			3543**73-76-80	3586**77-81-84	3627**81-86-88
-6	3494	3361*/65-70-75	3536*/70-71-76	3579*/71-71-76	3613*/71-71-76
			3549**74-77-81	3592**78-82-85	3633**81-86-89
-8	3494	3368*/65-70-75	3548*/71-71-76	3583*/71-71-76	3616*/71-71-76
			3554**74-78-81	3597**78-82-85	3638**82-87-89
-10	3494	3376*/65-70-75	3552*/71-71-76	3586*/71-71-76	3620*/71-71-76
			3560**75-78-82	3603**79-83-86	3643**82-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3360 M LONG WITH 305 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36R	36	620	0	35	790	0	53	800	0
	54	990	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 36RtxwT OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL
LAHORE
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2531	2249*/33-38-44	2393*/43-43-48	2434*/45-45-49	2471*/46-46-50
				2435**46-46-50	2474**48-48-52
58A	2587	2286*/34-39-45	2434*/43-44-49	2479*/46-46-51	2517*/47-47-52
					2520**49-49-53
56A	2652	2330*/35-40-47	2482*/44-46-51	2530*/47-47-52	2571*/49-49-53
					2573**50-50-55
54A	2717	2373*/36-42-48	2529*/45-47-52	2579*/48-49-54	2624*/50-50-55
52	2784	2417*/36-43-49	2577*/46-48-54	2629*/49-50-55	2679*/52-52-57
50	2856	2465*/37-44-51	2628*/46-50-55	2682*/49-51-57	2735*/53-53-58
48	2934	2514*/38-45-52	2682*/47-51-57	2737*/50-53-58	2792*/53-55-60
46	3009	2557F/39-46-54	2732*/48-52-58	2790*/51-54-60	2844*/54-56-61
44	3079	2596F/39-47-55	2780*/49-54-60	2837*/52-55-61	2892*/54-57-63
42	3147	2636F/40-48-56	2825*/49-55-61	2882*/52-57-63	2938*/55-58-64
40	3216	2677F/41-49-57	2870*/50-56-62	2928*/52-58-64	2986*/55-59-65
38	3278	2714F/42-50-59	2908*/50-57-64	2967*/53-59-65	3026*/56-60-67
36	3346	2752F/42-51-60	2949*/50-58-65	3009*/53-60-66	3069*/56-62-68
34	3405	2782F/43-52-61	2982F/51-59-66	3045*/53-60-67	3107*/56-62-69
32	3474	2810F/43-53-61	3012F/51-59-67	3080*/54-61-68	3143*/56-63-70
30	3488	2822F/43-53-62	3025F/51-60-67	3094*/54-62-69	3157*/57-64-70
28	3488	2830F/44-53-62	3034F/51-60-67	3101*/54-62-69	3164*/57-64-70
26	3489	2838F/44-54-62	3043F/52-60-67	3109*/55-62-69	3172*/57-64-71
24	3489	2846F/44-54-62	3052F/52-60-68	3116*/55-62-69	3179*/58-64-71
22	3490	2854F/44-54-63	3060*/52-61-68	3124*/55-63-69	3187*/58-65-71
20	3490	2862F/45-54-63	3068*/53-61-68	3131*/56-63-70	3195*/59-65-71
18	3490	2871F/45-55-63	3076*/53-61-68	3139*/56-63-70	3202*/59-65-71
16	3491	2879F/45-55-63	3083*/53-61-68	3146*/56-63-70	3210*/59-65-71
14	3491	2888F/45-55-63	3091*/54-62-69	3154*/57-64-70	3218*/60-65-72
12	3492	2896F/46-55-64	3098*/54-62-69	3162*/57-64-70	3226*/60-66-72
10	3492	2905F/46-56-64	3106*/54-62-69	3170*/57-64-70	3234*/60-66-72
8	3493	2914F/46-56-64	3114*/55-62-69	3178*/58-64-71	3242*/61-66-72
6	3493	2923F/47-56-64	3121*/55-63-69	3185*/58-64-71	3250*/61-66-72
4	3493	2931F/47-57-65	3129*/56-63-69	3193*/59-65-71	3258*/62-67-73
2	3494	2940F/47-57-65	3137*/56-63-70	3201*/59-65-71	3265*/62-67-73
0	3494	2949F/48-57-65	3145*/56-63-70	3209*/59-65-71	3273*/62-67-73
-2	3494	2959F/48-57-65	3152*/57-63-70	3217*/60-65-72	3281*/63-67-73
-4	3494	2968F/48-58-65	3160*/57-64-70	3225*/60-66-72	3290*/63-68-73
-6	3494	2977F/48-58-66	3168*/58-64-70	3233*/61-66-72	3298*/64-68-74
-8	3494	2985*/49-58-66	3176*/58-64-71	3241*/61-66-72	3306*/64-68-74

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2379 M LONG WITH 305 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36RtxwT	36	620	0	35	790	0	53	800	0
	54	990	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 712 FT

RUNWAY 36RtxwT OPLA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ALLAMA IQBAL INTL

LAHORE

777-200LR GE90-110B1L

DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

-10 3494 2993*/49-58-66 3184*/58-64-71 3248*/61-66-72 3314*/65-68-74

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2379 M LONG WITH 305 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

36RtxwT 36 620 0 35 790 0 53 800 0

54 990 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 403 FT

RUNWAY 18

OPMT

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2559	2689F/46-49-53	2869F/47-49-53	2931F/48-49-53	2994F/48-49-53
		2619**51-56-59	2689**61-67-69	2708**65-70-72	2722**68-73-74
58A	2616	2726F/48-50-54	2907F/49-50-54	2970F/49-50-54	3034F/50-50-54
		2668**52-57-60	2739**61-67-69	2758**65-71-72	2775**68-74-75
56A	2681	2767F/50-52-56	2951F/51-52-56	3015F/51-52-56	3079F/52-52-56
		2723**52-57-61	2796**62-68-70	2815**65-71-73	2833**69-75-76
54A	2747	2808F/51-54-58	2995F/52-54-58	3059F/53-54-58	3124F/53-54-58
		2777**52-58-61	2852**62-68-70	2874**65-72-74	2893**69-75-77
52	2819	2853F/52-56-60	3042F/54-56-60	3108F/55-56-60	3174F/55-56-60
		2836**52-58-62	2916**62-69-71	2939**65-72-74	2959**69-76-77
50	2893	2899F/52-58-62	3089F/55-58-62	3156F/56-58-62	3224F/57-58-62
		2896**52-58-63	2978**62-69-72	3003**66-73-75	3026**69-76-78
48	2971	2945F/53-59-64	3138F/57-60-65	3206F/57-60-65	3275F/58-60-65
			3044**62-69-72	3070**66-73-75	3095**69-77-79
46	3045	2987F/53-60-65	3184F/58-62-67	3252F/59-62-67	3324F/59-62-67
			3106**62-70-73	3133**66-73-76	3159**69-77-79
44	3116	3029F/53-61-66	3228F/59-64-68	3298F/60-64-68	3372F/61-64-68
			3166**62-70-73	3195**66-74-77	3223**69-77-80
42	3185	3071F/54-62-67	3272F/61-66-70	3345F/61-66-70	3428F/62-66-70
			3225**62-70-74	3254**66-74-77	3283**70-78-80
40	3253	3112F/54-63-69	3318F/62-68-72	3391F/62-68-72	3502F/63-68-72
			3282**63-71-75	3313**66-74-78	3344**70-78-81
38	3318	3150F/54-64-70	3360F/63-69-74	3454F/63-69-74	3544F/64-69-74
			3337**63-71-75	3370**66-75-78	3402**70-78-81
36	3385	3189F/55-65-71	3403F/63-71-75	3512F/64-71-75	3587F/65-71-75
			3393**63-71-76	3436**66-75-79	3483**69-78-81
34	3453	3224F/55-66-72	3467F/62-71-76	3550F/65-71-76	3626F/65-71-76
			3458**62-72-76	3501**66-75-79	3534**69-79-82
32	3507	3253F/55-66-73	3508F/62-72-76	3583F/65-72-76	3659F/65-72-76
				3543**66-75-79	3578**69-79-83
30	3507	3262F/55-67-73	3518F/63-72-76	3593F/65-72-76	3669F/66-72-76
			3512**63-72-77	3548**66-76-80	3583**70-80-83
28	3508	3271F/56-67-73	3528F/63-72-76	3603F/65-72-76	3680F/66-72-76
			3518**63-73-77	3553**67-76-80	3588**70-80-83
26	3508	3280F/56-67-73	3538F/64-72-76	3614F/65-72-76	3691F/66-72-76
			3523**64-73-78	3558**67-77-81	3593**71-81-84
24	3509	3290F/56-68-73	3548F/64-72-76	3624F/65-72-76	3702F/66-72-76
			3528**64-74-78	3563**68-77-81	3598**71-81-84
22	3509	3299F/57-68-74	3559F/64-72-76	3635F/65-72-76	3713F/66-72-76
			3534**64-74-78	3569**68-78-82	3603**72-82-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 160 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

18 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 403 FT

RUNWAY 18

OPMT

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3510	3309F/57-68-74	3569F/64-72-76	3646F/65-72-76	3724F/66-72-76
			3539**65-75-79	3574**69-78-82	3608**72-82-85
18	3510	3319F/57-68-74	3579F/64-72-76	3656F/65-72-76	3735F/66-72-76
			3544**65-75-79	3579**69-79-82	3614**73-83-86
16	3511	3329F/57-69-74	3590F/65-72-76	3667F/65-72-76	3747F/66-72-76
			3549**66-76-80	3585**69-79-83	3619**73-83-86
14	3511	3339F/58-69-74	3601F/65-72-76	3678F/65-72-76	3758F/66-72-76
			3554**66-76-80	3590**70-80-83	3624**74-84-87
12	3512	3349F/58-69-75	3612F/65-72-76	3690F/65-72-76	3770F/66-72-76
			3560**67-77-81	3595**70-81-84	3630**74-84-87
10	3513	3359F/58-69-75	3623F/65-72-76	3701F/66-72-76	3782F/66-72-76
			3565**67-77-81	3601**71-81-84	3635**75-85-88
8	3513	3370F/59-70-75	3634F/65-72-76	3712F/66-72-76	3787F/66-72-76
			3571**68-78-81	3606**71-82-85	3641**75-85-88
6	3514	3380F/59-70-75	3645F/65-72-76	3724F/66-72-76	3787F/67-72-76
			3576**68-78-82	3612**72-82-85	3646**76-86-89
4	3514	3391F/59-70-76	3656F/65-72-76	3736F/66-72-76	3787F/67-72-76
			3582**69-79-82	3617**72-83-86	3651**76-87-89
2	3514	3401F/60-71-76	3667F/65-72-76	3747F/66-72-76	3787F/67-72-76
			3587**69-79-83	3623**73-83-86	3656**77-87-90
0	3515	3413F/60-71-76	3678F/65-72-76	3759F/66-72-76	3787F/67-72-76
			3593**70-80-83	3628**73-84-87	3662**77-88-90
-2	3515	3432F/60-71-76	3690F/65-72-76	3771F/66-72-76	3787F/67-72-76
			3598**70-81-84	3633**74-84-87	3667**78-88-91
-4	3515	3452F/60-71-76	3701F/65-72-76	3783F/66-72-76	3787F/67-72-76
			3603**71-81-84	3639**74-85-88	3672**78-89-91
-6	3515	3471F/60-71-76	3713F/65-72-76	3787F/66-72-76	3787F/67-72-76
			3608**71-82-85	3644**75-86-88	3677**79-89-92
-8	3515	3489F/60-71-76	3725F/66-72-76	3787F/66-72-76	3787F/67-72-76
			3614**72-82-85	3649**76-86-89	3682**79-90-92
-10	3515	3500F/61-71-76	3737F/66-72-76	3787F/66-72-76	3787F/67-72-76
			3619**72-83-86	3654**76-87-89	3686**80-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 160 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

18 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 403 FT

RUNWAY 36

OPMT

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2559	2598*/46-49-53	2694*/47-49-53	2725*/48-49-53	2756*/48-49-53
		2607**53-55-58	2681**61-66-67	2702**65-69-71	2720**68-73-74
58A	2616	2647*/48-50-54	2744*/49-50-54	2777*/49-50-54	2808*/50-50-54
		2655**53-55-59	2732**62-66-68	2753**65-70-71	2772**69-74-75
56A	2681	2703*/50-52-56	2803*/51-52-56	2836*/51-52-56	2869*/51-52-56
		2709**53-56-59	2789**63-67-69	2812**66-71-72	2831**70-74-76
54A	2747	2754*/51-54-58	2861*/52-54-58	2895*/53-54-58	2929*/53-54-58
		2763**53-56-60	2846**63-67-69	2869**66-71-73	2891**70-75-76
52	2819	2819*/53-56-60	2923*/54-56-60	2959*/55-56-60	2993*/55-56-60
		2821**54-56-60	2908**63-68-70	2933**67-71-73	2956**70-75-77
50	2893	2871*/54-57-62	2983*/55-58-62	3020*/56-58-62	3056*/57-58-62
			2970**64-68-71	2997**67-72-74	3022**70-75-77
48	2971	2921*/54-59-63	3045*/57-60-65	3084*/57-60-65	3122*/58-60-65
			3035**64-68-71	3063**67-72-75	3089**70-76-78
46	3045	2966*/55-60-65	3103*/58-62-67	3143*/59-62-67	3183*/59-62-67
			3097**64-68-72	3126**67-72-75	3153**71-76-78
44	3116	3010*/55-61-66	3159*/59-64-68	3200*/60-64-68	3241*/61-64-68
			3156**64-69-72	3187**67-73-76	3216**71-76-79
42	3185	3054*/55-62-67	3214*/61-66-70	3256*/61-66-70	3299*/62-66-70
			3214**64-69-73	3245**67-73-76	3275**71-77-80
40	3253	3096*/56-63-68	3267*/62-68-72	3313*/62-68-72	3358*/63-68-72
			3270**64-70-74	3304**67-73-77	3336**71-77-80
38	3318	3135*/56-64-69	3318*/63-69-74	3366*/63-69-74	3413*/64-69-74
			3325**64-70-74	3360**67-74-77	3394**71-77-81
36	3385	3176*/56-65-70	3376*/64-70-75	3429*/64-71-75	3505*/65-71-75
				3420**67-74-78	3471**71-77-81
34	3453	3212*/56-65-71	3421*/64-71-76	3499*/65-71-76	3545*/65-71-76
				3490**67-74-78	3525**71-78-81
32	3507	3242*/56-66-72	3481*/64-71-76	3531*/65-72-76	3578*/65-72-76
				3532**67-74-78	3568**71-78-82
30	3507	3250*/57-66-72	3492*/64-71-76	3537*/65-72-76	3585*/66-72-76
				3537**68-75-79	3573**71-79-82
28	3508	3259*/57-67-73	3501*/65-72-76	3544*/65-72-76	3591*/66-72-76
				3542**68-75-79	3579**72-79-83
26	3508	3267*/57-67-73	3508*/65-72-76	3550*/65-72-76	3597*/66-72-76
			3509**65-72-76	3547**69-76-80	3584**72-80-83
24	3509	3276*/58-67-73	3509*/64-72-76	3556*/65-72-76	3604*/66-72-76
			3515**65-72-77	3552**69-76-80	3589**73-80-83
22	3509	3285*/58-67-73	3514*/64-72-76	3563*/65-72-76	3610*/66-72-76
			3520**66-73-77	3558**69-77-81	3594**73-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 210 M OF STOPWAY

RUNWAY SLOPES ARE -0.00 PERCENT FOR TODA AND -0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	13	381	0	396	35819	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 403 FT

RUNWAY 36

OPMT

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

MULTAN

MULTAN

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3510	3294*/58-68-73	3521*/64-72-76	3569*/65-72-76	3616*/66-72-76
			3525**66-73-78	3563**70-77-81	3599**74-81-84
18	3510	3303*/59-68-74	3527*/64-72-76	3575*/65-72-76	3623*/66-72-76
			3531**67-74-78	3568**70-78-81	3605**74-82-85
16	3511	3312*/59-68-74	3534*/64-72-76	3582*/65-72-76	3629*/66-72-76
			3536**67-74-79	3574**71-78-82	3610**75-82-85
14	3511	3321*/59-68-74	3540*/65-72-76	3588*/65-72-76	3636*/66-72-76
			3542**68-75-79	3579**71-79-82	3615**75-83-86
12	3512	3331*/60-69-74	3547*/65-72-76	3595*/65-72-76	3642*/66-72-76
			3547**68-75-79	3585**72-79-83	3621**75-83-86
10	3513	3340*/60-69-74	3554*/65-72-76	3601*/66-72-76	3649*/66-72-76
			3553**69-76-80	3590**72-80-83	3627**76-84-87
8	3513	3350*/60-69-75	3560*/65-72-76	3608*/66-72-76	3656*/66-72-76
			3558**69-76-80	3596**73-80-84	3632**76-84-87
6	3514	3359*/61-69-75	3567*/65-72-76	3615*/66-72-76	3662*/67-72-76
			3564**70-77-81	3601**73-81-84	3638**77-85-88
4	3514	3369*/61-70-75	3573*/65-72-76	3621*/66-72-76	3669*/67-72-76
			3569**70-78-81	3607**74-82-85	3643**78-86-88
2	3514	3378*/61-70-75	3580*/65-72-76	3628*/66-72-76	3675*/67-72-76
			3575**71-78-82	3612**74-82-85	3648**78-86-89
0	3515	3388*/62-70-75	3586*/65-72-76	3634*/66-72-76	3681*/67-72-76
			3580**71-79-82	3618**75-83-86	3654**79-87-89
-2	3515	3398*/62-70-76	3592*/65-72-76	3640*/66-72-76	3688*/67-72-76
			3586**72-79-83	3623**75-83-86	3659**79-87-90
-4	3515	3407*/62-71-76	3599*/65-72-76	3647*/66-72-76	3694*/67-72-76
			3591**72-80-83	3629**76-84-87	3664**80-88-90
-6	3515	3422*/63-71-76	3605*/65-72-76	3653*/66-72-76	3701*/67-72-76
			3597**73-80-84	3634**76-84-87	3670**80-89-91
-8	3515	3439*/63-71-76	3612*/66-72-76	3660*/66-72-76	3707*/67-72-76
			3602**73-81-84	3639**77-85-88	3675**81-89-91
-10	3515	3455*/63-71-76	3618*/66-72-76	3666*/66-72-76	3713*/67-72-76
			3607**74-82-85	3645**77-86-88	3680**81-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
 MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
 *=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3204 M LONG WITH 274 M OF CLEARWAY AND 210 M OF STOPWAY

RUNWAY SLOPES ARE -0.00 PERCENT FOR TODA AND -0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36	13	381	0	396	35819	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 1211 FT

RUNWAY 17

OPPS

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PESHAWAR INTL

PESHAWAR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2483	2315*/40-41-46	2419*/44-44-49	2451*/46-46-50	2483*/47-47-51
			2426**47-47-51	2460**49-49-53	2495**51-51-55
58A	2538	2356*/41-42-47	2466*/46-46-50	2499*/47-47-51	2531*/48-48-52
			2472**48-48-52	2507**50-50-54	2542**52-52-56
56A	2602	2402*/41-43-49	2520*/47-47-52	2554*/48-48-53	2588*/50-50-54
			2525**49-49-54	2561**51-51-55	2597**53-53-57
54A	2666	2448*/42-44-50	2573*/49-49-53	2609*/50-50-54	2643*/51-51-55
			2577**51-51-55	2615**53-53-57	2652**54-54-58
52	2726	2491*/43-46-51	2623*/50-50-55	2660*/51-51-56	2696*/53-53-57
			2627**52-52-57	2665**54-54-58	2703**55-55-59
50	2796	2541*/44-47-53	2682*/52-52-57	2719*/53-53-58	2756*/54-54-59
			2683**53-53-58	2724**55-55-59	2762**57-57-61
48	2869	2593*/45-48-54	2742*/53-53-58	2781*/55-55-59	2819*/56-56-60
				2785**57-57-61	2824**58-58-62
46	2946	2645*/45-50-56	2800*/54-55-60	2845*/56-56-61	2884*/58-58-62
					2888**60-60-64
44	3017	2692*/46-51-57	2849*/54-56-62	2899*/57-58-63	2943*/59-59-64
					2945**60-60-65
42	3084	2735*/47-52-59	2895*/55-57-63	2948*/57-59-64	2998*/60-61-65
40	3153	2779*/47-53-60	2942*/55-58-64	2996*/58-60-66	3050*/61-62-67
38	3213	2815*/47-54-61	2982*/55-59-65	3037*/58-61-67	3093*/61-63-68
36	3278	2856*/47-55-62	3026*/56-60-67	3083*/58-62-68	3139*/61-64-69
34	3339	2890*/48-56-63	3063*/56-61-68	3122*/59-63-69	3180*/62-65-70
32	3396	2923*/48-57-64	3100*/56-62-69	3159*/59-64-70	3218*/62-66-72
30	3447	2950*/48-57-65	3129*/56-63-69	3189*/59-65-71	3250*/62-67-72
28	3447	2957*/48-58-65	3136*/57-63-70	3196*/60-65-71	3257*/63-67-73
26	3447	2964*/49-58-65	3143*/57-63-70	3204*/60-65-71	3264*/63-67-73
24	3448	2971*/49-58-66	3150*/58-64-70	3211*/60-65-71	3271*/63-67-73
22	3448	2978*/49-58-66	3158*/58-64-70	3218*/61-66-72	3279*/64-67-73
20	3448	2985*/50-58-66	3165*/58-64-70	3225*/61-66-72	3286*/64-68-73
18	3449	2992*/50-59-66	3172*/59-64-70	3233*/62-66-72	3294*/64-68-73
16	3449	2999*/50-59-66	3180*/59-64-71	3240*/62-66-72	3301*/65-68-74
14	3450	3006*/51-59-66	3187*/59-65-71	3247*/62-67-72	3309*/65-68-74
12	3450	3013*/51-59-67	3194*/60-65-71	3255*/63-67-72	3317*/66-69-74
10	3451	3021*/51-60-67	3202*/60-65-71	3262*/63-67-73	3324*/66-69-74
8	3451	3028*/52-60-67	3209*/61-65-71	3270*/64-67-73	3332*/66-69-74
6	3452	3035*/52-60-67	3217*/61-66-72	3277*/64-67-73	3340*/67-69-74
4	3452	3043*/52-60-67	3224*/61-66-72	3285*/64-68-73	3347*/67-69-75
2	3452	3050*/53-60-67	3232*/62-66-72	3293*/65-68-73	3355*/68-70-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 450 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
17	46	695	0	60	977	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 1211 FT

RUNWAY 17

OPPS

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PESHAWAR INTL

PESHAWAR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

0	3453	3057*/53-61-68	3239*/62-66-72	3300*/65-68-74	3362*/68-70-75
-2	3453	3065*/54-61-68	3246*/63-67-72	3308*/66-68-74	3369*/69-70-75
-4	3453	3072*/54-61-68	3254*/63-67-72	3315*/66-68-74	3376*/69-70-75
-6	3453	3079*/54-61-68	3261*/63-67-73	3323*/66-69-74	3383*/70-70-75
-8	3453	3087*/55-62-68	3268*/64-67-73	3330*/67-69-74	3389*/70-71-75
-10	3453	3094*/55-62-69	3276*/64-67-73	3338*/67-69-74	3396*/71-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 450 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE 0.50 PERCENT FOR TODA AND 0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

17	46	695	0	60	977	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 1211 FT

RUNWAY 35

OPPS

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

PESHAWAR INTL

PESHAWAR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2483	2435F/39-45-49	2619F/46-47-51	2635*/46-47-51	2649*/46-47-51
			2543**49-54-57	2568**52-58-60	2590**55-61-63
58A	2538	2471F/40-46-50	2658F/47-48-52	2694*/48-48-52	2708*/48-48-52
			2591**49-55-58	2617**53-58-61	2639**56-62-64
56A	2602	2512F/41-47-52	2702F/49-50-54	2760*/49-50-54	2774*/49-50-54
			2647**50-56-59	2672**53-59-62	2696**57-63-65
54A	2666	2554F/42-48-53	2746F/51-52-56	2811F/51-52-56	2840*/51-52-56
			2702**51-56-60	2728**54-60-63	2752**58-63-66
52	2726	2593F/42-49-54	2786F/52-54-58	2849F/53-54-58	2901*/53-54-58
			2754**51-57-60	2781**55-60-64	2805**58-64-67
50	2796	2639F/43-50-56	2829F/52-55-60	2893F/54-55-60	2959F/55-55-60
			2811**52-57-61	2839**55-61-64	2865**58-64-67
48	2869	2686F/44-52-57	2874F/52-57-62	2938F/56-57-62	3005F/56-57-62
			2871**52-58-62	2900**55-61-65	2927**58-65-68
46	2946	2730F/45-53-58	2918F/52-59-63	2984F/56-60-64	3051F/58-60-64
				2963**55-62-66	2992**59-65-69
44	3017	2768F/45-53-59	2960F/53-60-64	3026F/55-61-66	3094F/59-61-66
				3021**55-62-66	3051**59-66-69
42	3084	2806F/45-54-61	3000F/53-61-66	3067F/56-63-67	3136F/59-63-68
					3107**59-66-70
40	3153	2844F/46-55-62	3041F/53-62-67	3109F/56-64-68	3179F/59-65-69
					3165**59-66-71
38	3213	2877F/46-56-63	3077F/54-62-68	3146F/56-64-69	3216F/59-67-71
					3214**59-67-71
36	3278	2914F/46-57-64	3116F/54-63-69	3186F/57-65-71	3257F/59-68-72
34	3339	2946F/47-58-65	3150F/55-64-70	3221F/57-66-71	3294F/60-68-73
32	3396	2976F/47-58-66	3182F/55-65-71	3254F/58-67-72	3330F/60-69-74
30	3447	3001F/47-59-66	3209F/55-65-71	3282F/58-68-73	3360F/60-70-75
28	3447	3009F/47-59-66	3219F/55-66-72	3292F/58-68-73	3370F/61-70-75
26	3447	3018F/48-59-67	3228F/56-66-72	3303F/58-68-74	3381F/61-70-75
24	3448	3027F/48-60-67	3238F/56-66-72	3313F/59-68-74	3391F/61-71-75
22	3448	3035F/48-60-67	3247F/56-67-72	3324F/59-69-74	3402F/62-71-76
20	3448	3044F/49-60-67	3257F/57-67-73	3334F/59-69-74	3415F/62-71-76
18	3449	3053F/49-61-68	3267F/57-67-73	3345F/60-69-74	3435F/62-71-76
16	3449	3062F/49-61-68	3277F/57-67-73	3356F/60-70-75	3456F/62-71-76
					3452**62-71-76
14	3450	3071F/49-61-68	3288F/58-68-73	3366F/60-70-75	3477F/63-71-76
					3459**63-72-76
12	3450	3080F/50-61-68	3298F/58-68-73	3377F/61-70-75	3493F/63-71-76
					3467**63-72-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 550 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.50 PERCENT FOR TODA AND -0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

35 364 12387 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 1211 FT

RUNWAY 35

OPPS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

PESHAWAR INTL
PESHAWAR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

10	3451	3090F/50-62-68	3309F/58-68-74	3388F/61-70-75	3504F/64-71-76
					3475**64-73-77
8	3451	3099F/50-62-69	3320F/59-69-74	3399F/61-71-76	3515F/65-71-76
					3483**64-73-77
6	3452	3109F/51-62-69	3331F/59-69-74	3411F/62-71-76	3526F/65-71-76
					3489**64-74-78
4	3452	3118F/51-63-69	3342F/59-69-74	3431F/62-71-76	3537F/66-71-76
					3494**65-74-78
2	3452	3128F/51-63-69	3353F/60-70-75	3453F/62-71-76	3549F/66-71-76
					3499**65-75-79
0	3453	3137F/52-63-70	3364F/60-70-75	3474F/62-71-76	3560F/67-71-76
				3460**62-72-76	3504**66-75-79
-2	3453	3147F/52-63-70	3375F/60-70-75	3491F/63-71-76	3572F/67-71-76
				3468**63-72-77	3510**66-76-80
-4	3453	3157F/52-64-70	3387F/61-70-75	3503F/64-71-76	3583F/68-71-76
				3476**63-73-77	3515**67-77-80
-6	3453	3167F/53-64-70	3398F/61-71-76	3514F/64-71-76	3595F/69-71-76
				3484**64-73-77	3520**67-77-81
-8	3453	3177F/53-64-71	3409F/61-71-76	3525F/65-71-76	3607F/69-71-76
				3489**64-74-78	3526**68-78-81
-10	3453	3187F/53-65-71	3429F/61-71-76	3537F/65-71-76	3619F/70-71-76
				3495**65-74-78	3531**68-78-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 550 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2743 M LONG WITH 274 M OF CLEARWAY AND 122 M OF STOPWAY

RUNWAY SLOPES ARE -0.50 PERCENT FOR TODA AND -0.50 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

35 364 12387 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 12

OPRN

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

ISLAMABAD INTL A

ISLAMABAD

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2439	2433F/45-45-49	2592F/44-45-49	2647F/44-45-49	2703F/45-45-49
			2509**52-55-57	2532**55-58-60	2553**58-61-63
58A	2493	2470F/46-46-50	2632F/46-47-51	2687F/46-47-51	2744F/46-47-51
			2557**53-55-58	2580**56-58-61	2601**58-62-64
56A	2556	2513F/47-47-52	2679F/47-49-53	2735F/48-49-53	2792F/48-49-53
			2612**54-56-59	2635**56-59-62	2657**59-63-65
54A	2618	2557F/48-48-53	2725F/49-51-55	2782F/49-51-55	2840F/50-51-55
			2667**55-57-60	2691**57-60-63	2713**60-63-66
52A	2677	2598F/49-50-54	2768F/50-52-56	2827F/51-52-56	2885F/51-52-56
			2719**56-57-61	2743**58-61-64	2767**61-64-66
50	2740	2642F/50-51-55	2814F/52-54-58	2874F/52-54-58	2933F/53-54-58
			2774**57-58-62	2799**59-61-64	2823**62-65-67
48	2810	2689F/51-52-57	2864F/54-56-60	2925F/54-56-60	2986F/55-56-60
			2835**58-59-63	2861**60-62-65	2886**63-66-68
46	2886	2732F/51-53-58	2916F/55-58-62	2978F/56-58-62	3041F/56-58-62
			2900**59-60-64	2927**61-63-66	2953**64-66-69
44	2958	2773F/52-54-59	2960F/59-60-64	3025F/57-60-64	3091F/57-60-64
			2959**59-60-64	2990**62-64-67	3017**65-67-70
42	3024	2811F/52-55-61	3002F/59-61-65	3068F/58-62-66	3135F/59-62-66
				3045**62-64-68	3076**66-68-71
40	3090	2849F/53-56-62	3042F/60-62-67	3110F/61-63-68	3178F/60-63-68
				3100**63-64-69	3131**66-68-72
38	3155	2884F/53-57-63	3080F/60-63-68	3148F/63-65-69	3218F/61-65-70
					3185**66-68-72
36	3218	2921F/53-57-64	3119F/61-64-69	3188F/63-66-70	3259F/62-67-71
					3237**66-69-73
34	3276	2953F/54-58-65	3153F/61-64-70	3223F/64-67-71	3296F/65-68-73
					3285**66-69-74
32	3334	2985F/54-59-66	3188F/62-65-71	3258F/64-67-72	3333F/67-69-74
30	3382	3012F/54-60-66	3216F/62-66-71	3288F/64-68-73	3364F/67-70-75
28	3407	3030F/55-60-67	3236F/62-66-72	3309F/65-69-74	3386F/67-71-75
26	3408	3039F/55-60-67	3246F/63-67-72	3320F/65-69-74	3397F/68-71-76
24	3408	3047F/55-61-67	3255F/63-67-72	3330F/65-69-74	3408F/68-71-76
22	3408	3056F/55-61-68	3265F/63-67-73	3340F/66-69-74	3425F/67-71-76
					3414**68-72-76
20	3408	3065F/56-61-68	3274F/63-68-73	3351F/66-70-75	3446F/67-71-76
					3422**69-72-77
18	3409	3073F/56-61-68	3285F/64-68-73	3361F/66-70-75	3466F/66-71-76
					3430**69-73-77

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3017 M LONG WITH 0 M OF CLEARWAY AND 229 M OF STOPWAY

RUNWAY SLOPES ARE -0.03 PERCENT FOR TODA AND -0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

12 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 12

OPRN

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

ISLAMABAD INTL A

ISLAMABAD

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

16	3409	3082F/56-62-68	3295F/64-68-73	3372F/67-70-75	3486F/66-71-76
					3438**70-73-77
14	3409	3091F/57-62-68	3305F/64-68-74	3383F/67-71-75	3497F/66-71-76
					3446**70-74-78
12	3409	3100F/57-62-69	3316F/65-69-74	3394F/67-71-75	3508F/66-71-76
					3453**70-74-78
10	3410	3110F/57-63-69	3326F/65-69-74	3405F/68-71-76	3519F/66-71-76
					3462**71-75-78
8	3410	3119F/58-63-69	3337F/65-69-74	3421F/68-71-76	3530F/66-71-76
				3414**68-72-76	3469**71-75-79
6	3411	3128F/58-63-69	3348F/66-70-75	3442F/67-71-76	3541F/66-71-76
				3423**68-72-76	3477**72-76-79
4	3411	3138F/58-63-70	3359F/66-70-75	3463F/66-71-76	3552F/66-71-76
				3431**69-72-77	3485**72-76-80
2	3411	3148F/59-64-70	3370F/66-70-75	3485F/66-71-76	3564F/66-71-76
				3439**69-73-77	3491**73-77-80
0	3411	3157F/59-64-70	3382F/67-70-75	3496F/66-71-76	3575F/66-71-76
				3447**70-74-78	3496**73-77-81
-2	3412	3167F/59-64-70	3393F/67-71-75	3507F/66-71-76	3587F/66-71-76
				3455**70-74-78	3502**74-78-81
-4	3412	3177F/60-65-71	3404F/67-71-76	3519F/66-71-76	3598F/66-71-76
				3463**71-75-78	3507**74-78-82
-6	3412	3187F/60-65-71	3420F/67-71-76	3530F/66-71-76	3610F/67-71-76
			3415**68-71-76	3471**71-75-79	3512**75-79-82
-8	3412	3197F/60-65-71	3441F/67-71-76	3541F/66-71-76	3622F/67-71-76
			3423**68-72-76	3479**72-76-79	3518**75-80-83
-10	3411	3207F/61-65-71	3463F/66-71-76	3553F/66-71-76	3634F/67-71-76
			3432**69-72-77	3486**72-76-80	3523**76-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3017 M LONG WITH 0 M OF CLEARWAY AND 229 M OF STOPWAY

RUNWAY SLOPES ARE -0.03 PERCENT FOR TODA AND -0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

12 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 30

OPRN

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

ISLAMABAD INTL A

ISLAMABAD

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2439	2423*/45-45-49	2495*/45-45-49	2517*/45-45-49	2538*/45-45-49
			2520**53-56-58	2548**57-60-62	2572**60-64-66
58A	2493	2468*/46-46-50	2546*/47-47-51	2568*/47-47-51	2589*/47-47-51
			2567**54-57-59	2595**58-61-63	2620**61-65-67
56A	2556	2522*/48-48-52	2605*/49-49-53	2628*/49-49-53	2650*/49-49-53
			2623**55-57-60	2651**58-62-64	2677**62-66-68
54A	2618	2575*/49-49-53	2664*/51-51-55	2688*/51-51-55	2710*/51-51-55
			2678**56-58-61	2707**59-62-65	2734**63-67-69
52A	2677	2625*/50-50-55	2720*/52-52-56	2744*/52-52-56	2767*/52-52-56
			2730**57-59-62	2761**60-63-66	2789**64-67-69
50	2740	2678*/52-52-56	2770*/52-54-58	2803*/54-54-58	2827*/54-54-58
			2786**58-60-63	2817**61-64-67	2846**65-68-70
48	2810	2736*/53-53-58	2832*/54-56-60	2869*/56-56-60	2894*/56-56-60
			2847**59-60-64	2880**62-65-68	2910**66-69-71
46	2886	2798*/55-55-60	2899*/56-58-62	2929*/56-58-62	2966*/58-58-62
			2913**60-61-65	2947**63-65-69	2979**67-70-72
44	2958	2854*/55-57-62	2963*/58-60-64	2994*/58-60-64	3034*/60-60-64
			2975**62-62-66	3010**64-66-70	3043**68-70-73
42	3024	2901*/55-58-63	3024*/60-62-66	3054*/60-62-66	3085*/60-62-66
			3033**63-63-67	3069**65-67-70	3103**69-71-74
40	3090	2946*/56-59-64	3090*/63-63-68	3113*/61-63-68	3145*/61-63-68
				3128**67-68-71	3163**69-72-75
38	3155	2989*/56-60-65	3145*/64-65-69	3170*/63-65-70	3203*/63-65-70
				3185**67-68-72	3221**70-73-76
36	3218	3032*/56-61-67	3194*/65-66-71	3227*/64-67-71	3260*/65-67-71
				3239**68-69-73	3276**71-73-77
34	3276	3067F/56-62-68	3237*/65-67-72	3279*/66-68-73	3315*/66-68-73
				3287**68-69-74	3327**71-74-77
32	3334	3100F/57-63-69	3278*/65-68-73	3337*/68-70-74	3368*/67-70-74
				3336**68-70-74	3377**71-74-78
30	3382	3127F/57-63-69	3314*/65-69-74	3373*/68-70-75	3414*/68-71-75
					3421**71-74-78
28	3407	3146F/57-64-70	3336*/65-69-74	3396*/68-71-76	3458*/69-71-76
					3456**71-74-78
26	3408	3155F/58-64-70	3343*/66-69-74	3404*/69-71-76	3465*/69-71-76
					3463**72-75-79
24	3408	3164F/58-64-70	3351*/66-70-75	3411*/69-71-76	3471*/69-71-76
				3410**69-71-76	3470**72-75-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3291 M LONG WITH 0 M OF CLEARWAY AND 213 M OF STOPWAY

RUNWAY SLOPES ARE 0.03 PERCENT FOR TODA AND 0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30	45	708	0	78	1408	0	78	1418	0
	110	2203	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 30

OPRN

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

ISLAMABAD INTL A

ISLAMABAD

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3408	3173F/58-64-70	3358*/67-70-75	3427*/70-71-76	3478*/69-71-76
				3417**70-72-76	3478**72-76-79
20	3408	3182F/58-65-71	3365*/67-70-75	3441*/70-71-76	3485*/69-71-76
				3426**70-72-77	3485**73-76-80
18	3409	3191F/59-65-71	3373*/67-70-75	3431*/69-71-76	3489*/69-71-76
				3434**70-73-77	3491**73-77-80
16	3409	3201F/59-65-71	3380*/68-70-75	3438*/69-71-76	3493*/69-71-76
				3441**71-73-77	3496**74-77-81
14	3409	3208*/59-66-71	3388*/68-71-75	3445*/69-71-76	3497*/69-71-76
				3449**71-74-78	3501**74-78-81
12	3409	3215*/60-66-71	3395*/69-71-76	3452*/69-71-76	3501*/69-71-76
				3457**72-74-78	3506**75-79-82
10	3410	3223*/60-66-72	3403*/69-71-76	3460*/69-71-76	3504*/69-71-76
				3465**72-75-79	3512**75-79-82
8	3410	3230*/61-66-72	3410*/69-71-76	3467*/69-71-76	3507*/69-71-76
				3473**72-75-79	3517**76-80-83
6	3411	3237*/61-66-72	3425*/70-71-76	3473*/69-71-76	3511*/69-71-76
			3418**70-72-76	3481**73-76-79	3523**76-80-83
4	3411	3245*/61-67-72	3438*/71-71-76	3480*/69-71-76	3514*/69-71-76
			3427**70-72-77	3488**73-76-80	3528**77-81-84
2	3411	3252*/62-67-72	3426*/69-71-76	3485*/69-71-76	3526*/71-71-76
			3436**71-73-77	3494**74-77-80	3534**77-81-84
0	3411	3259*/62-67-73	3434*/69-71-76	3489*/69-71-76	3529*/71-71-76
			3444**71-73-77	3499**74-78-81	3539**78-82-85
-2	3412	3267*/63-67-73	3441*/69-71-76	3492*/69-71-76	3532*/71-71-76
			3452**72-74-78	3504**75-78-81	3545**78-83-85
-4	3412	3274*/63-68-73	3447*/69-71-76	3495*/69-71-76	3535*/71-71-76
			3460**72-74-78	3510**75-79-82	3550**79-83-86
-6	3412	3281*/63-68-73	3454*/69-71-76	3498*/69-71-76	3538*/71-71-76
			3468**72-75-79	3515**76-79-82	3555**79-84-86
-8	3412	3289*/64-68-73	3461*/69-71-76	3510*/71-71-76	3540*/71-71-76
			3476**73-75-79	3521**76-80-83	3560**80-84-87
-10	3411	3297*/64-68-73	3466*/69-71-76	3512*/71-71-76	3543*/71-71-76
			3483**73-76-80	3526**77-81-83	3566**81-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3291 M LONG WITH 0 M OF CLEARWAY AND 213 M OF STOPWAY

RUNWAY SLOPES ARE 0.03 PERCENT FOR TODA AND 0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30	45	708	0	78	1408	0	78	1418	0
	110	2203	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 30txwA OPRN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

ISLAMABAD INTL A
ISLAMABAD
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2439	2190F/36-36-42	2343*/42-42-47	2380*/43-43-48	2416*/45-45-49
				2381**45-45-49	2419**46-46-50
58A	2493	2223F/37-37-43	2380F/43-43-48	2423*/45-45-49	2460*/46-46-50
				2424**46-46-50	2463**47-47-51
56A	2556	2261F/38-38-44	2422F/44-44-49	2474*/46-46-51	2512*/47-47-52
					2514**49-49-53
54A	2618	2298F/39-39-46	2464F/45-45-50	2519F/47-47-52	2564*/49-49-53
					2566**50-50-54
52A	2677	2334F/39-40-47	2505F/46-46-52	2560F/48-48-53	2613*/50-50-55
50	2740	2373F/40-41-48	2547F/48-48-53	2603F/49-49-54	2660F/51-51-56
48	2810	2413F/41-43-49	2592F/49-49-54	2650F/51-51-56	2708F/53-53-57
46	2886	2456F/42-44-51	2640F/50-50-56	2699F/52-52-57	2757F/54-54-59
44	2958	2496F/43-45-52	2684F/51-51-57	2745F/53-53-59	2805F/55-55-60
42	3024	2535F/43-46-53	2727F/52-52-58	2789F/54-54-60	2850F/56-56-62
40	3090	2574F/44-47-54	2770F/53-53-60	2832F/55-55-61	2896F/57-57-63
38	3155	2610F/45-48-56	2806F/53-54-61	2871F/56-56-62	2937F/58-58-64
36	3218	2648F/46-49-57	2843F/54-55-62	2908F/56-57-63	2976F/59-59-65
34	3276	2681F/46-49-58	2875F/54-56-63	2942F/57-58-64	3010F/59-60-66
32	3334	2712F/47-50-59	2907F/54-56-64	2974F/57-59-65	3043F/60-61-67
30	3382	2737F/47-51-59	2933F/55-57-64	3001F/57-59-66	3071F/60-61-68
28	3407	2754F/48-51-60	2952F/55-58-65	3020F/58-60-67	3091F/60-62-68
26	3408	2761F/48-51-60	2960F/55-58-65	3029F/58-60-67	3100F/61-62-69
24	3408	2769F/48-52-60	2969F/56-58-65	3038F/58-60-67	3110F/61-63-69
22	3408	2777F/48-52-61	2978F/56-58-66	3047F/59-61-67	3119F/61-63-69
20	3408	2785F/49-52-61	2987F/56-59-66	3057F/59-61-68	3128F/62-63-69
18	3409	2793F/49-52-61	2995F/57-59-66	3066F/59-61-68	3138F/62-63-70
16	3409	2801F/49-53-61	3004F/57-59-66	3075F/60-61-68	3148F/62-64-70
14	3409	2809F/50-53-61	3013F/57-60-67	3085F/60-62-68	3158F/63-64-70
12	3409	2817F/50-53-62	3023F/58-60-67	3094F/60-62-69	3167F/63-64-70
10	3410	2826F/50-54-62	3032F/58-60-67	3104F/61-62-69	3178F/63-65-71
8	3410	2834F/50-54-62	3041F/58-60-67	3114F/61-63-69	3188F/64-65-71
6	3411	2843F/51-54-62	3051F/59-61-67	3123F/61-63-69	3198F/64-65-71
4	3411	2851F/51-54-62	3060F/59-61-68	3133F/62-63-70	3208F/64-66-71
2	3411	2860F/51-55-63	3070F/59-61-68	3143F/62-64-70	3218F/65-66-72
0	3411	2869F/52-55-63	3080F/60-62-68	3154F/62-64-70	3228F/65-66-72
-2	3412	2878F/52-55-63	3090F/60-62-68	3164F/63-64-70	3239F/65-66-72
-4	3412	2887F/52-55-63	3099F/60-62-69	3174F/63-65-70	3249F/66-67-72
-6	3412	2896F/53-56-64	3109F/61-63-69	3184F/63-65-71	3260F/66-67-73

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2470 M LONG WITH 0 M OF CLEARWAY AND 213 M OF STOPWAY

RUNWAY SLOPES ARE 0.03 PERCENT FOR TODA AND 0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30txwA	45	708	0	78	1408	0	78	1418	0
	110	2203	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1668 FT

RUNWAY 30t_{xwA} OPRN

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

ISLAMABAD INTL A

ISLAMABAD

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20

-8	3412	2905F/53-56-64	3120F/61-63-69	3195F/64-65-71	3271F/66-67-73

-10	3411	2914F/53-56-64	3130F/61-63-69	3205F/64-65-71	3282F/67-68-73

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2470 M LONG WITH 0 M OF CLEARWAY AND 213 M OF STOPWAY

RUNWAY SLOPES ARE 0.03 PERCENT FOR TODA AND 0.03 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30t _{xwA}	45	708	0	78	1408	0	78	1418	0
	110	2203	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 786 FT

RUNWAY 04

OPST

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SIALKOT INTL

SIALKOT

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2524	2829F/45-48-52	3003F/47-48-52	3063F/47-48-52	3125F/47-48-52
		2651**60-66-67	2684**67-72-73	2684**67-72-73	2684**67-72-73
58A	2580	2873F/47-49-53	3049F/48-49-53	3110F/48-49-53	3172F/49-49-53
		2700**60-66-68	2739**68-74-75	2739**68-74-75	2739**69-74-75
56A	2645	2915F/49-51-55	3101F/50-51-55	3163F/50-51-55	3226F/51-51-55
		2756**60-66-68	2803**69-76-77	2803**70-76-77	2803**70-76-77
54A	2710	2957F/50-53-57	3148F/51-53-57	3214F/52-53-57	3280F/52-53-57
		2811**60-67-69	2867**71-77-78	2870**71-78-79	2870**72-78-79
52	2776	3000F/51-55-59	3194F/53-55-59	3261F/54-55-59	3332F/54-55-59
		2869**60-67-70	2929**71-78-79	2941**73-80-81	2941**74-80-81
50	2848	3046F/53-57-61	3242F/55-57-61	3312F/55-57-61	3385F/56-57-61
		2931**61-68-70	2996**71-78-79	3013**74-82-83	3018**75-82-83
48	2924	3094F/54-59-63	3293F/56-59-63	3365F/57-59-63	3466F/57-59-63
		2995**60-68-71	3063**71-78-80	3083**74-82-83	3097**77-85-86
46	3000	3139F/55-61-65	3344F/57-61-65	3422F/58-61-65	3526F/59-61-65
		3059**60-68-72	3132**71-79-81	3152**74-82-84	3171**78-86-87
44	3071	3182F/56-63-67	3391F/59-63-67	3501F/59-63-67	3574F/60-63-67
		3119**60-69-72	3195**71-79-81	3218**74-83-84	3238**78-86-87
42	3138	3224F/58-65-69	3461F/60-65-69	3546F/60-65-69	3620F/61-65-69
		3176**60-69-73	3255**71-79-82	3279**74-83-85	3302**78-86-88
40	3207	3267F/59-66-71	3520F/61-66-71	3593F/62-66-71	3668F/62-66-71
		3234**60-69-73	3318**71-80-82	3344**74-83-85	3368**78-87-89
38	3269	3307F/60-68-72	3560F/62-68-72	3635F/63-68-72	3710F/63-68-72
		3285**60-70-74	3376**71-80-83	3403**74-84-86	3441**78-87-89
36	3336	3349F/60-70-74	3604F/63-70-74	3679F/64-70-74	3755F/64-70-74
		3342**60-70-75	3448**71-80-83	3489**74-83-86	3516**78-87-89
34	3395	3386F/60-71-75	3642F/64-71-75	3718F/65-71-75	3787F/65-71-75
			3510**70-80-83	3540**74-84-86	3569**78-87-89
32	3463	3430F/60-71-76	3678F/64-71-76	3755F/64-71-76	3787F/65-71-76
			3559**70-81-84	3590**74-84-87	3620**78-88-90
30	3483	3462F/60-71-76	3696F/64-71-76	3774F/64-71-76	3787F/65-71-76
			3578**71-81-84	3610**74-85-87	3640**78-88-90
28	3483	3481F/60-71-76	3707F/64-71-76	3785F/64-71-76	3787F/65-71-76
			3583**71-82-85	3614**75-85-88	3645**79-89-91
26	3483	3493F/61-71-76	3718F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3488**61-72-76	3588**72-82-85	3619**75-86-88	3649**79-89-91
24	3484	3503F/61-71-76	3729F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3493**61-72-76	3592**72-83-86	3623**76-86-89	3653**80-90-92
22	3484	3513F/61-71-76	3740F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3498**61-73-77	3597**73-83-86	3628**76-87-89	3658**80-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

04 NONE

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 04 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,

COMMENCED AT D11.0 SLT DME TO A MAG COURES OF 165 DEGREES.

ELEVATION 786 FT

RUNWAY 04

OPST

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SIALKOT INTL

SIALKOT

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3485	3523F/61-71-76	3751F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3503**62-73-77	3602**73-84-86	3633**77-87-90	3662**81-91-93
18	3485	3533F/61-71-76	3762F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3508**62-73-78	3607**74-84-87	3638**77-88-90	3667**81-91-93
16	3485	3543F/61-71-76	3773F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3513**63-74-78	3612**74-85-87	3643**78-88-91	3671**82-92-94
14	3486	3554F/61-71-76	3785F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3518**63-74-79	3616**75-85-88	3648**78-89-91	3676**82-93-94
12	3486	3564F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3523**64-75-79	3621**75-86-88	3652**79-89-92	3681**83-93-95
10	3487	3575F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3528**64-75-79	3627**76-86-89	3657**79-90-92	3686**83-94-95
8	3487	3586F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3533**65-76-80	3632**76-87-89	3662**80-91-93	3690**84-94-96
6	3488	3596F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3539**65-76-80	3637**77-87-90	3666**80-91-93	3695**84-95-96
4	3488	3607F/62-71-76	3787F/65-71-76	3787F/65-71-76	3787F/66-71-76
		3544**66-77-81	3642**77-88-90	3671**81-92-94	3699**85-95-97
2	3488	3618F/62-71-76	3787F/65-71-76	3787F/65-71-76	3787F/66-71-76
		3549**66-77-81	3647**78-88-91	3676**82-92-94	3703**85-96-98
0	3489	3629F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/66-71-76
		3554**67-78-82	3651**78-89-91	3681**82-93-95	3708**86-97-98
-2	3489	3640F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/66-71-76
		3559**67-79-82	3656**79-90-92	3685**83-93-95	3712**87-97-99
-4	3489	3651F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/66-71-76
		3564**68-79-82	3660**79-90-92	3690**83-94-96	3716**87-98-99
-6	3489	3662F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/67-71-76
		3569**68-80-83	3665**80-91-93	3694**84-95-96	3721**88-99-00
-8	3489	3674F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/67-71-76
		3574**69-80-83	3670**80-91-93	3698**84-95-97	3725**88-99-00
-10	3489	3685F/63-71-76	3787F/65-71-76	3787F/66-71-76	3787F/67-71-76
		3579**69-81-84	3674**81-92-94	3703**85-96-97	3729**89-00-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE 0.02 PERCENT FOR TODA AND 0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
04	NONE								

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 04 BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
COMMENCED AT D11.0 SLT DME TO A MAG COURES OF 165 DEGREES.

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF SIALKOT INTL
SIALKOT
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2524	2832F/45-48-52	3006F/46-48-52	3066F/47-48-52	3128F/47-48-52
		2652**60-66-67	2684**66-72-73	2684**67-72-73	2684**67-72-73
58A	2580	2875F/47-49-53	3052F/48-49-53	3113F/48-49-53	3175F/49-49-53
		2701**60-66-68	2739**68-74-75	2739**68-74-75	2739**69-74-75
56A	2645	2918F/49-51-55	3104F/50-51-55	3166F/50-51-55	3229F/50-51-55
		2756**60-67-69	2803**69-76-77	2803**70-76-77	2803**70-76-77
54A	2710	2960F/50-53-57	3150F/51-53-57	3217F/52-53-57	3283F/52-53-57
		2812**60-67-69	2867**71-77-78	2870**71-78-79	2870**72-78-79
52	2776	3002F/51-55-59	3196F/53-55-59	3263F/54-55-59	3335F/54-55-59
		2870**60-67-70	2930**71-78-79	2941**73-80-81	2941**74-80-81
50	2848	3049F/53-57-61	3245F/54-57-61	3315F/55-57-61	3388F/55-57-61
		2932**61-68-70	2996**71-78-80	3014**74-82-83	3018**75-82-83
48	2924	3096F/54-59-63	3296F/56-59-63	3368F/56-59-63	3471F/57-59-63
		2996**61-68-71	3064**71-79-80	3083**74-82-83	3097**77-85-86
46	3000	3141F/55-61-65	3346F/57-61-65	3427F/58-61-65	3529F/58-61-65
		3060**60-68-72	3132**71-79-81	3153**74-82-84	3172**78-86-87
44	3071	3184F/56-63-67	3394F/58-63-67	3503F/59-63-67	3577F/60-63-67
		3120**60-69-72	3196**71-79-81	3218**74-83-84	3239**78-86-88
42	3138	3226F/57-65-69	3466F/60-65-69	3549F/60-65-69	3623F/61-65-69
		3177**60-69-73	3256**71-80-82	3280**74-83-85	3303**78-87-88
40	3207	3269F/59-66-71	3522F/61-66-71	3595F/62-66-71	3670F/62-66-71
		3235**60-70-74	3319**71-80-82	3345**74-83-85	3368**78-87-89
38	3269	3309F/59-68-72	3563F/62-68-72	3637F/63-68-72	3713F/63-68-72
		3286**60-70-74	3377**71-80-83	3404**74-84-86	3443**78-87-89
36	3336	3352F/60-70-74	3606F/63-70-74	3682F/64-70-74	3758F/64-70-74
		3343**60-70-75	3449**71-80-83	3490**74-84-86	3517**78-87-89
34	3395	3389F/60-71-75	3644F/64-71-75	3720F/64-71-75	3787F/65-71-75
			3511**70-80-83	3541**74-84-86	3570**78-88-90
32	3463	3435F/60-71-76	3680F/64-71-76	3758F/64-71-76	3787F/65-71-76
			3560**70-81-84	3591**74-84-87	3621**78-88-90
30	3483	3466F/60-71-76	3699F/63-71-76	3777F/64-71-76	3787F/65-71-76
			3579**71-81-84	3611**74-85-87	3641**78-88-91
28	3483	3485F/60-71-76	3710F/64-71-76	3787F/64-71-76	3787F/65-71-76
			3584**71-82-85	3615**75-85-88	3646**79-89-91
26	3483	3496F/61-71-76	3720F/64-71-76	3787F/64-71-76	3787F/65-71-76
		3489**61-72-76	3589**72-82-85	3620**75-86-88	3650**79-89-91
24	3484	3505F/61-71-76	3731F/64-71-76	3787F/64-71-76	3787F/65-71-76
		3494**61-72-77	3594**72-83-86	3624**76-86-89	3654**80-90-92
22	3484	3515F/61-71-76	3742F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3499**61-73-77	3598**73-83-86	3629**76-87-89	3659**80-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

22 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 786 FT PCN LIMITED WT 328000 KGs RUNWAY 22 OPST

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF SIALKOT INTL
SIALKOT
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3485	3526F/61-71-76	3753F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3504**62-73-77	3603**73-84-87	3634**77-87-90	3663**81-91-93
18	3485	3536F/61-71-76	3765F/64-71-76	3787F/65-71-76	3787F/65-71-76
		3509**62-74-78	3608**73-84-87	3639**77-88-90	3668**81-92-93
16	3485	3546F/61-71-76	3776F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3514**63-74-78	3613**74-85-87	3644**78-88-91	3672**82-92-94
14	3486	3556F/61-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3519**63-75-79	3617**74-85-88	3648**78-89-91	3677**82-93-94
12	3486	3567F/61-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3524**64-75-79	3622**75-86-88	3653**79-90-92	3682**83-93-95
10	3487	3577F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3529**64-76-79	3628**76-86-89	3658**79-90-92	3687**83-94-95
8	3487	3588F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3534**65-76-80	3633**76-87-89	3663**80-91-93	3691**84-94-96
6	3488	3599F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3540**65-77-80	3638**77-88-90	3667**80-91-93	3696**84-95-97
4	3488	3610F/62-71-76	3787F/64-71-76	3787F/65-71-76	3787F/66-71-76
		3545**66-77-81	3643**77-88-90	3672**81-92-94	3700**85-96-97
2	3488	3621F/62-71-76	3787F/65-71-76	3787F/65-71-76	3787F/66-71-76
		3550**66-78-81	3648**78-89-91	3677**82-92-94	3704**85-96-98
0	3489	3632F/62-71-76	3787F/65-71-76	3787F/65-71-76	3787F/66-71-76
		3555**67-78-82	3652**78-89-91	3682**82-93-95	3709**86-97-98
-2	3489	3643F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/66-71-76
		3560**67-79-82	3657**79-90-92	3686**83-94-95	3713**87-97-99
-4	3489	3654F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/66-71-76
		3565**68-79-83	3661**79-90-92	3691**83-94-96	3717**87-98-99
-6	3489	3665F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/66-71-76
		3570**68-80-83	3666**80-91-93	3695**84-95-96	3722**88-99-00
-8	3489	3676F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/67-71-76
		3575**69-80-84	3671**80-92-93	3699**84-95-97	3726**88-99-00
-10	3489	3688F/62-71-76	3787F/65-71-76	3787F/66-71-76	3787F/67-71-76
		3580**69-81-84	3675**81-92-94	3704**85-96-97	3730**89-00-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3600 M LONG WITH 1000 M OF CLEARWAY AND 300 M OF STOPWAY

RUNWAY SLOPES ARE -0.02 PERCENT FOR TODA AND -0.02 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
22 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 16L

RJAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2584	2266*/35-38-45	2412*/44-44-49	2453*/45-45-50	2493*/46-46-51
58A	2641	2303*/36-39-46	2455*/45-45-50	2497*/46-46-51	2539*/48-48-52
56A	2707	2345*/37-41-47	2504*/46-46-52	2548*/48-48-53	2591*/49-49-54
54	2775	2388*/38-42-49	2552*/47-47-53	2600*/49-49-54	2644*/51-51-56
52	2851	2436*/38-43-50	2605*/48-49-55	2659*/51-51-56	2704*/52-52-57
50	2925	2484*/39-44-52	2656*/49-50-56	2713*/52-52-58	2762*/54-54-59
48	3003	2531*/40-46-53	2708*/49-52-58	2766*/52-53-59	2821*/55-55-61
46	3076	2573F/41-47-54	2756*/50-53-59	2815*/53-55-61	2872*/56-57-62
44	3148	2614F/42-48-56	2803*/51-54-61	2861*/54-56-62	2919*/56-58-64
42	3217	2655F/42-49-57	2846*/51-55-62	2906*/54-57-63	2966*/57-59-65
40	3286	2695F/43-50-58	2888*/52-56-63	2949*/54-58-65	3011*/57-60-66
38	3352	2732F/44-51-59	2926*/52-57-64	2988*/55-59-66	3051*/57-61-67
36	3422	2768F/44-51-60	2966*/52-58-65	3029*/55-60-67	3093*/58-62-68
34	3491	2797F/45-52-61	2999F/53-59-66	3064*/55-61-68	3129*/58-63-69
32	3522	2816F/45-53-62	3019F/53-59-67	3086*/56-61-68	3151*/58-63-70
30	3523	2824F/45-53-62	3028F/53-59-67	3094*/56-61-69	3160*/59-64-70
28	3524	2832F/45-53-62	3037F/53-60-67	3102*/56-62-69	3168*/59-64-70
26	3525	2840F/46-53-62	3044*/54-60-67	3110*/57-62-69	3176*/59-64-71
24	3525	2848F/46-54-63	3052*/54-60-68	3118*/57-62-69	3184*/60-64-71
22	3526	2856F/46-54-63	3060*/54-60-68	3126*/57-62-69	3192*/60-65-71
20	3527	2864F/47-54-63	3068*/55-61-68	3134*/58-63-70	3200*/61-65-71
18	3528	2872F/47-54-63	3076*/55-61-68	3142*/58-63-70	3208*/61-65-71
16	3528	2881F/47-55-63	3084*/55-61-68	3150*/58-63-70	3217*/61-65-72
14	3529	2889F/47-55-64	3092*/56-61-69	3158*/59-63-70	3225*/62-65-72
12	3530	2898F/48-55-64	3100*/56-62-69	3166*/59-64-70	3233*/62-66-72
10	3530	2906F/48-56-64	3108*/57-62-69	3175*/59-64-71	3242*/62-66-72
8	3531	2915F/48-56-64	3116*/57-62-69	3183*/60-64-71	3250*/63-66-72
6	3532	2924F/49-56-64	3124*/57-62-69	3191*/60-64-71	3259*/63-67-73
4	3532	2932F/49-56-65	3133*/58-63-70	3200*/61-65-71	3267*/64-67-73
2	3532	2941F/49-57-65	3141*/58-63-70	3208*/61-65-71	3275*/64-67-73
0	3533	2950F/50-57-65	3149*/58-63-70	3216*/61-65-72	3284*/64-67-73
-2	3533	2959*/50-57-65	3157*/59-63-70	3224*/62-65-72	3293*/65-67-73
-4	3533	2966*/50-57-66	3165*/59-64-70	3233*/62-66-72	3301*/65-68-74
-6	3533	2974*/51-58-66	3173*/60-64-71	3241*/63-66-72	3310*/66-68-74
-8	3533	2982*/51-58-66	3182*/60-64-71	3249*/63-66-72	3319*/66-68-74
-10	3533	2990*/51-58-66	3190*/60-64-71	3258*/63-66-73	3327*/66-68-74

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.07 PERCENT FOR TODA AND 0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16L	10	239	0	16	346	0	39	379	0
	42	412	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 135 FT

RUNWAY 16R

RJAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2584	2615*/48-50-54	2679*/50-50-54	2698*/50-50-54	2718*/50-50-54
		2665**60-64-66	2749**68-74-75	2749**69-74-75	2749**69-74-75
58A	2641	2669*/50-51-55	2735*/51-51-55	2755*/51-51-55	2775*/51-51-55
		2716**61-66-68	2803**70-75-76	2806**70-76-77	2806**71-76-77
56A	2707	2732*/52-53-57	2800*/53-53-57	2821*/53-53-57	2841*/53-53-57
		2775**62-66-68	2864**71-76-77	2872**72-78-79	2872**72-78-79
54	2775	2796*/54-55-59	2866*/55-55-59	2887*/55-55-59	2908*/55-55-59
		2835**63-67-70	2927**72-77-78	2942**74-80-81	2942**74-80-81
52	2851	2868*/56-57-61	2941*/57-57-61	2962*/57-57-61	2983*/57-57-61
		2904**65-68-71	3000**73-78-79	3024**77-83-84	3024**77-83-84
50	2925	2938*/57-59-63	3009*/58-59-63	3034*/59-59-63	3056*/59-59-63
		2969**65-68-71	3070**74-79-80	3095**77-83-85	3103**79-85-86
48	3003	3011*/59-61-65	3084*/60-61-65	3110*/61-61-65	3132*/61-61-65
		3034**64-67-71	3138**74-79-81	3164**78-84-85	3183**81-87-88
46	3076	3079*/61-63-67	3154*/62-63-67	3178*/62-63-67	3205*/63-63-67
		3095**64-66-70	3202**74-79-81	3231**78-84-85	3256**81-88-89
44	3148	3148*/64-65-69	3223*/64-65-69	3248*/64-65-69	3275*/65-65-69
		3153**64-67-71	3266**74-79-82	3297**78-84-86	3326**81-88-90
42	3217	3209*/64-66-71	3291*/65-67-71	3317*/65-67-71	3347*/67-67-71
			3329**74-80-82	3362**78-84-86	3392**81-89-90
40	3286	3265*/64-68-72	3359*/67-68-73	3386*/67-68-73	3414*/67-68-73
			3389**74-80-83	3433**77-84-87	3483**80-89-90
38	3352	3317*/64-69-74	3429*/68-70-74	3467*/69-70-74	3498*/69-70-74
			3466**74-80-83	3509**77-84-87	3543**80-89-91
36	3422	3372*/64-70-75	3508*/70-71-76	3535*/70-71-76	3562*/70-71-76
			3528**74-80-83	3566**77-85-87	3601**81-89-91
34	3491	3426*/64-71-76	3560*/70-71-76	3588*/70-71-76	3615*/70-71-76
			3579**74-81-84	3619**77-85-88	3656**81-90-92
32	3522	3462B/64-71-76	3591*/71-72-77	3619*/71-72-77	3647*/71-72-77
			3607**74-81-84	3648**77-86-88	3686**81-90-92
30	3523	3470B/64-71-76	3594*/71-72-77	3622*/71-72-77	3650*/71-72-77
			3613**74-81-85	3653**78-86-89	3691**81-91-93
28	3524	3478B/64-71-76	3597*/71-72-77	3625*/71-72-77	3653*/71-72-77
			3618**75-82-85	3658**78-87-89	3696**82-91-93
26	3525	3486B/65-71-76	3600*/71-72-77	3628*/71-72-77	3655*/71-72-77
			3623**75-83-86	3664**79-87-90	3701**82-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.07 PERCENT FOR TODA AND 0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	10	219	0	40	696	0	50	1117	0
	54	1163	0	59	1237	0	72	1300	0
	73	1447	0	81	1619	0	99	1669	0
	110	2070	0	178	6292	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 16R

RJAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3525	3491B/65-71-76	3603*/71-72-77	3631*/71-72-77	3658*/71-72-77
			3629**76-83-86	3669**79-88-90	3706**83-92-94
22	3526	3497B/66-71-76	3606*/71-72-77	3634*/71-72-77	3661*/71-72-77
			3634**76-84-87	3674**80-88-91	3711**83-93-95
20	3527	3503B/66-71-76	3608*/71-72-77	3636*/71-72-77	3668*/72-72-77
			3639**77-84-87	3679**80-89-91	3716**84-93-95
18	3528	3508*/67-72-76	3611*/71-72-77	3639*/71-72-77	3671*/72-72-77
			3645**77-85-87	3685**81-89-92	3721**84-94-96
16	3528	3513*/67-72-76	3614*/71-72-77	3642*/71-72-77	3673*/72-72-77
			3650**78-85-88	3690**81-90-92	3726**85-95-96
14	3529	3518*/68-72-77	3617*/71-72-77	3645*/71-72-77	3676*/72-72-77
		3519**68-74-78	3655**78-86-88	3695**82-90-93	3731**86-95-97
12	3530	3523*/68-72-77	3620*/71-72-77	3648*/71-72-77	3679*/72-72-77
		3525**68-74-78	3661**79-86-89	3701**82-91-93	3736**86-96-97
10	3530	3528*/69-72-77	3623*/71-72-77	3651*/71-72-77	3681*/72-72-77
		3530**69-74-78	3666**79-87-89	3706**83-92-94	3741**87-96-98
8	3531	3534*/69-72-77	3626*/71-72-77	3657*/72-72-77	3684*/72-72-77
		3536**69-74-79	3672**80-87-90	3711**83-92-94	3746**87-97-98
6	3532	3539*/70-72-77	3628*/71-72-77	3660*/72-72-77	3686*/72-72-77
		3542**70-75-79	3677**80-88-90	3716**84-93-95	3751**88-98-99
4	3532	3544*/70-72-77	3631*/71-72-77	3662*/72-72-77	3689*/72-72-77
		3547**70-75-79	3683**81-89-91	3721**84-93-95	3756**88-98-00
2	3532	3549*/71-72-77	3633*/71-72-77	3665*/72-72-77	3691*/72-72-77
		3552**71-75-80	3688**81-89-91	3727**85-94-96	3760**89-99-00
0	3533	3550*/71-72-77	3636*/71-72-77	3667*/72-72-77	3693*/72-72-77
		3557**71-76-80	3694**82-90-92	3732**86-95-96	3765**89-00-01
-2	3533	3552*/71-72-77	3638*/71-72-77	3669*/72-72-77	3695*/72-72-77
		3563**72-77-80	3699**82-90-93	3737**86-95-97	3770**90-00-01
-4	3533	3555*/71-72-77	3644*/72-72-77	3671*/72-72-77	3697*/72-72-77
		3568**72-77-81	3704**83-91-93	3741**87-96-98	3774**91-01-02
-6	3533	3557*/71-72-77	3646*/72-72-77	3673*/72-72-77	3699*/72-72-77
		3573**73-78-82	3709**84-92-94	3746**87-97-98	3777**91-01-02
-8	3533	3559*/71-72-77	3648*/72-72-77	3675*/72-72-77	3701*/72-72-77
		3579**73-78-82	3714**84-92-94	3750**88-97-99	3777**92-01-02
-10	3533	3562*/71-72-77	3650*/72-72-77	3677*/72-72-77	3703*/72-72-77
		3585**74-79-82	3719**85-93-95	3755**89-98-99	3777**93-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.07 PERCENT FOR TODA AND 0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
16R	10	219	0	40	696	0	50	1117	0
	54	1163	0	59	1237	0	72	1300	0
	73	1447	0	81	1619	0	99	1669	0
	110	2070	0	178	6292	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 34L

RJAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2584	2669*/47-50-54	2741*/48-50-54	2764*/48-50-54	2786*/49-50-54
		2706**62-66-68	2749**68-74-75	2749**68-74-75	2749**69-74-75
58A	2641	2722*/49-51-55	2796*/50-51-55	2820*/50-51-55	2842*/50-51-55
		2757**62-67-69	2806**69-76-77	2806**70-76-77	2806**70-76-77
56A	2707	2783*/50-53-57	2861*/51-53-57	2885*/52-53-57	2909*/52-53-57
		2816**63-68-70	2872**71-78-79	2872**71-78-79	2872**72-78-79
54	2775	2843*/51-55-59	2926*/53-55-59	2951*/53-55-59	2975*/54-55-59
		2875**64-68-70	2942**73-80-81	2942**73-80-81	2942**74-80-81
52	2851	2910*/53-57-61	2996*/55-57-61	3023*/55-57-61	3048*/56-57-61
		2939**64-68-71	3014**74-81-82	3024**75-83-84	3024**75-83-84
50	2925	2975*/54-59-63	3064*/56-59-63	3092*/57-59-63	3119*/57-59-63
		3002**64-69-71	3082**74-81-82	3103**77-85-86	3103**77-85-86
48	3003	3041*/55-61-65	3135*/57-61-65	3164*/58-61-65	3192*/59-61-65
		3066**64-69-72	3150**74-81-83	3173**77-85-87	3183**79-87-88
46	3076	3103*/57-63-67	3201*/59-63-67	3231*/59-63-67	3261*/60-63-67
		3127**64-69-73	3216**74-81-83	3241**77-85-87	3262**81-90-91
44	3148	3164*/58-65-69	3265*/60-65-69	3298*/61-65-69	3330*/61-65-69
		3186**64-69-73	3281**74-82-84	3309**77-86-87	3334**81-90-91
42	3217	3223*/59-67-71	3330*/61-67-71	3365*/62-67-71	3398*/62-67-71
		3244**64-70-74	3344**74-82-84	3374**77-86-88	3401**81-90-92
40	3286	3286*/61-68-73	3393*/62-68-73	3442*/63-68-73	3491*/64-68-73
		3301**63-70-74	3407**74-82-85	3453**77-86-88	3492**80-90-91
38	3352	3352*/63-70-74	3477*/63-70-74	3516*/64-70-74	3549*/65-70-74
		3355**63-70-75	3490**73-82-85	3522**77-86-88	3553**80-90-92
36	3422	3407*/63-71-76	3537*/64-71-76	3573*/65-71-76	3608*/65-71-76
			3546**73-82-85	3580**77-87-89	3611**80-91-92
34	3491	3469B/62-71-76	3581*/63-71-76	3619*/64-71-76	3656*/65-71-76
			3598**73-83-86	3633**77-87-89	3666**81-91-93
32	3522	3498B/62-71-76	3610*/64-72-77	3649*/65-72-77	3686*/66-72-77
			3627**73-83-86	3663**77-87-90	3696**81-91-93
30	3523	3505B/63-72-76	3615*/64-72-77	3653*/65-72-77	3690*/66-72-77
			3632**74-84-87	3668**78-88-90	3701**81-92-94
28	3524	3512B/63-72-76	3620*/64-72-77	3658*/65-72-77	3695*/66-72-77
			3637**74-84-87	3673**78-88-91	3706**82-92-94
26	3525	3519B/63-72-77	3624*/64-72-77	3663*/65-72-77	3699*/66-72-77
			3643**75-85-87	3678**79-89-91	3711**82-93-95
24	3525	3525*/64-72-77	3629*/64-72-77	3667*/65-72-77	3704*/66-72-77
			3648**75-85-88	3683**79-89-92	3716**83-94-95
22	3526	3526*/63-72-77	3634*/64-72-77	3672*/65-72-77	3708*/66-72-77
		3532**64-73-77	3653**76-86-88	3689**80-90-92	3721**83-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

34L 49 835 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 34L

RJAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3527	3527*/63-72-77	3639*/65-72-77	3676*/65-72-77	3713*/66-72-77
		3538**65-73-78	3658**76-86-89	3694**80-90-93	3726**84-95-96
18	3528	3528*/62-72-77	3643*/65-72-77	3681*/65-72-77	3717*/66-72-77
		3544**65-74-78	3663**77-87-89	3699**81-91-93	3731**84-95-97
16	3528	3530*/62-72-77	3648*/65-72-77	3685*/66-72-77	3721*/66-72-77
		3549**66-74-79	3669**77-87-90	3704**81-92-94	3736**85-96-97
14	3529	3534*/62-72-77	3652*/65-72-77	3690*/66-72-77	3726*/66-72-77
		3555**66-75-79	3674**78-88-90	3709**82-92-94	3740**85-97-98
12	3530	3539*/62-72-77	3657*/65-72-77	3694*/66-72-77	3730*/66-72-77
		3561**67-75-80	3680**78-89-91	3714**82-93-95	3746**86-97-99
10	3530	3544*/62-72-77	3662*/65-72-77	3699*/66-72-77	3735*/67-72-77
		3567**67-76-80	3685**79-89-91	3719**83-93-95	3750**87-98-99
8	3531	3549*/62-72-77	3666*/65-72-77	3703*/66-72-77	3739*/67-72-77
		3573**68-77-80	3691**79-90-92	3725**83-94-96	3755**87-98-00
6	3532	3554*/62-72-77	3671*/65-72-77	3708*/66-72-77	3743*/67-72-77
		3579**68-77-81	3696**80-90-92	3730**84-95-96	3760**88-99-00
4	3532	3558*/62-72-77	3675*/65-72-77	3712*/66-72-77	3747*/67-72-77
		3584**69-78-81	3701**80-91-93	3735**84-95-97	3765**88-00-01
2	3532	3563*/63-72-77	3679*/65-72-77	3716*/66-72-77	3751*/67-72-77
		3590**70-78-82	3706**81-91-93	3740**85-96-97	3770**89-00-01
0	3533	3567*/63-72-77	3683*/65-72-77	3720*/66-72-77	3755*/67-72-77
		3596**70-79-82	3711**81-92-94	3744**85-96-98	3774**89-01-02
-2	3533	3572*/63-72-77	3687*/65-72-77	3724*/66-72-77	3758*/67-72-77
		3601**71-79-83	3716**82-93-95	3749**86-97-99	3776**90-01-02
-4	3533	3576*/63-72-77	3691*/66-72-77	3727*/66-72-77	3762*/67-72-77
		3607**71-80-83	3721**83-93-95	3753**87-98-99	3777**89-01-02
-6	3533	3580*/63-72-77	3695*/66-72-77	3731*/66-72-77	3766*/67-72-77
		3612**72-81-84	3726**83-94-96	3758**87-98-00	3777**90-01-02
-8	3533	3585*/63-72-77	3699*/66-72-77	3735*/67-72-77	3769*/67-72-77
		3617**72-81-84	3731**84-95-96	3763**88-99-00	3777**90-01-02
-10	3533	3589*/63-72-77	3703*/66-72-77	3739*/67-72-77	3773*/67-72-77
		3623**73-82-85	3736**84-95-97	3767**88-00-01	3777**90-01-02

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34L	49	835	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 135 FT

RUNWAY 34R RJAA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

NARITA

TOKYO

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

60A	2584	2293F/35-39-45	2477F/44-46-51	2541F/46-48-52	2584*/49-50-54
					2588**50-51-55
58A	2641	2327F/36-40-46	2514F/44-47-52	2579F/47-49-53	2634*/50-51-55
56A	2707	2366F/37-41-48	2556F/45-48-53	2621F/48-50-55	2688F/51-52-57
54	2775	2406F/37-42-49	2598F/46-49-54	2664F/49-51-56	2732F/52-53-58
52	2851	2451F/38-44-50	2646F/47-50-56	2713F/50-52-58	2782F/53-55-59
50	2925	2495F/39-45-52	2692F/48-51-57	2761F/51-54-59	2828F/54-56-61
48	3003	2539F/40-46-53	2739F/49-53-59	2808F/52-55-60	2874F/54-57-62
46	3076	2580F/41-47-55	2783F/50-54-60	2849F/52-56-62	2916F/55-58-63
44	3148	2620F/42-48-56	2824F/51-55-61	2890F/53-57-63	2958F/55-59-65
42	3217	2662F/42-49-57	2864F/51-56-62	2931F/54-58-64	3000F/56-60-66
40	3286	2701F/43-50-58	2902F/51-56-63	2970F/54-59-65	3040F/57-61-67
38	3352	2738F/44-51-59	2937F/52-57-64	3006F/54-59-66	3076F/57-62-68
36	3422	2773F/44-52-60	2974F/52-58-65	3043F/55-60-67	3114F/57-63-69
34	3491	2803F/45-52-61	3005F/52-59-66	3076F/55-61-68	3148F/58-63-70
32	3522	2821F/45-53-62	3025F/53-59-67	3096F/55-62-69	3169F/58-64-70
30	3523	2829F/45-53-62	3034F/53-60-67	3106F/56-62-69	3179F/58-64-71
28	3524	2837F/45-53-62	3043F/53-60-67	3115F/56-62-69	3188F/59-64-71
26	3525	2845F/46-54-62	3052F/54-60-68	3124F/56-62-69	3198F/59-65-71
24	3525	2854F/46-54-63	3061F/54-60-68	3133F/57-63-70	3208F/59-65-71
22	3526	2862F/46-54-63	3070F/54-61-68	3143F/57-63-70	3217F/60-65-72
20	3527	2870F/46-54-63	3080F/55-61-68	3152F/57-63-70	3227F/60-66-72
18	3528	2878F/47-55-63	3089F/55-61-69	3162F/58-64-70	3237F/60-66-72
16	3528	2887F/47-55-63	3098F/55-62-69	3172F/58-64-71	3247F/61-66-72
14	3529	2895F/47-55-64	3108F/55-62-69	3182F/58-64-71	3258F/61-66-73
12	3530	2904F/48-55-64	3117F/56-62-69	3192F/59-64-71	3268F/61-67-73
10	3530	2912F/48-56-64	3127F/56-62-69	3202F/59-65-71	3279F/62-67-73
8	3531	2921F/48-56-64	3136F/56-63-70	3212F/59-65-72	3290F/62-67-73
6	3532	2930F/48-56-65	3146F/57-63-70	3222F/60-65-72	3301F/62-68-74
4	3532	2939F/49-57-65	3156F/57-63-70	3232F/60-66-72	3312F/63-68-74
2	3532	2948F/49-57-65	3166F/57-64-70	3242F/60-66-72	3323F/63-68-74
0	3533	2957F/49-57-65	3176F/58-64-71	3253F/61-66-73	3334F/63-69-74
-2	3533	2966F/50-57-65	3186F/58-64-71	3263F/61-67-73	3345F/64-69-75
-4	3533	2975F/50-58-66	3196F/58-65-71	3274F/61-67-73	3357F/64-69-75
-6	3533	2984F/50-58-66	3207F/59-65-71	3285F/62-67-73	3368F/64-70-75
-8	3533	2993F/51-58-66	3217F/59-65-72	3296F/62-68-74	3380F/65-70-75
-10	3533	3003F/51-59-66	3227F/60-66-72	3308F/62-68-74	3392F/65-70-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.07 PERCENT FOR TODA AND -0.07 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
34R	55	1054	0	64	1251	0	68	1358	0
	89	1624	0	101	1758	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14L WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2521*/47-47-52	2586*/50-50-54	2606*/50-50-54	2626*/50-50-54
		2589**63-68-70	2670**66-71-73	2697**67-72-73	2723**68-73-74
58A	2647	2575*/49-49-53	2641*/51-51-55	2662*/51-51-55	2683*/51-51-55
		2640**64-70-71	2723**67-73-74	2750**69-74-75	2777**70-75-76
56A	2714	2637*/51-51-55	2705*/53-53-57	2726*/53-53-57	2747*/53-53-57
		2699**65-71-73	2783**69-75-76	2810**70-76-77	2838**71-77-78
54	2782	2700*/52-52-57	2770*/55-55-59	2792*/55-55-59	2813*/55-55-59
		2759**66-72-74	2846**71-77-78	2874**72-78-79	2902**73-79-80
52	2858	2770*/54-54-59	2842*/57-57-61	2865*/57-57-61	2887*/57-57-61
		2828**67-72-74	2917**73-79-80	2947**74-80-81	2976**75-81-82
50	2933	2839*/56-56-61	2913*/59-59-63	2937*/59-59-63	2959*/59-59-63
		2894**67-72-75	2987**75-81-82	3017**76-82-83	3047**77-83-84
48	3011	2911*/58-58-63	2987*/60-60-65	3011*/61-61-66	3034*/61-61-66
		2960**67-72-75	3057**76-82-84	3088**78-84-85	3118**79-85-86
46	3084	2978*/60-60-65	3056*/62-62-67	3081*/63-63-67	3104*/63-63-68
		3022**67-71-74	3125**76-82-83	3157**80-86-87	3189**81-87-88
44	3155	3043*/62-62-67	3123*/64-64-69	3149*/65-65-69	3173*/65-65-69
		3080**67-71-74	3191**77-82-84	3225**80-85-87	3258**83-89-90
42	3225	3107*/63-63-68	3189*/66-66-70	3215*/67-67-71	3241*/67-67-71
		3137**67-71-75	3253**77-81-84	3289**80-85-87	3325**83-88-90
40	3294	3169*/65-65-70	3253*/67-67-72	3280*/68-68-73	3306*/68-69-73
		3193**67-71-75	3314**77-81-84	3354**80-85-87	3392**83-88-90
38	3360	3226*/66-66-72	3314*/69-69-74	3343*/70-70-74	3369*/69-70-75
		3244**67-72-77	3372**77-81-84	3415**80-84-87	3479**83-88-89
36	3432	3287*/67-68-73	3377*/70-70-75	3407*/71-71-76	3442*/70-71-76
		3298**67-73-78	3438**77-81-84	3497**79-83-86	3539**83-87-90
34	3500	3341*/67-69-74	3444*/71-71-76	3480*/71-71-76	3507*/71-72-76
		3348**67-74-78	3505**76-81-84	3548**79-83-86	3593**83-87-89
32	3526	3364B/67-69-75	3475*/71-71-76	3506*/72-72-76	3533*/71-72-77
		3370**67-74-79	3529**76-81-85	3573**80-84-87	3618**83-88-90
30	3527	3368B/67-70-75	3478*/71-71-76	3508*/72-72-76	3535*/71-72-77
		3375**67-74-79	3534**77-82-85	3578**80-85-88	3623**84-88-90
28	3528	3372B/68-70-75	3481*/71-71-76	3511*/72-72-76	3538*/71-72-77
		3380**68-75-80	3539**77-83-86	3583**81-85-88	3628**84-89-91
26	3528	3376B/68-70-75	3483*/71-71-76	3513*/72-72-76	3540*/72-72-77
		3385**68-76-80	3544**78-83-86	3588**81-86-89	3633**85-89-91
24	3529	3378*/69-70-75	3486*/71-71-76	3515*/72-72-76	3543*/72-72-77
		3390**69-76-80	3549**78-83-86	3593**82-87-89	3637**85-90-92
22	3530	3381*/70-70-75	3488*/71-71-76	3518*/72-72-77	3545*/72-72-77
		3395**69-77-81	3554**79-84-87	3599**82-87-90	3642**86-90-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3383*/70-70-75	3491*/71-71-76	3520*/72-72-77	3547*/72-72-77
		3400**70-77-81	3559**79-84-87	3604**83-87-90	3647**86-91-93
18	3531	3386*/70-70-75	3493*/71-71-76	3522*/72-72-77	3549*/72-72-77
		3405**70-77-81	3564**80-85-88	3609**83-88-90	3652**87-92-94
16	3532	3388*/70-70-75	3495*/71-71-76	3524*/72-72-77	3551*/72-72-77
		3409**71-77-81	3569**80-86-89	3614**84-88-91	3657**87-92-94
14	3533	3390*/70-70-76	3497*/71-71-76	3526*/72-72-77	3554*/72-72-77
		3416**71-78-82	3574**81-86-89	3619**84-89-91	3663**88-93-95
12	3534	3393*/70-70-76	3500*/71-71-76	3529*/72-72-77	3556*/72-72-77
		3424**71-78-82	3579**81-86-89	3624**85-90-92	3668**88-93-95
10	3535	3396*/70-70-76	3502*/71-71-76	3531*/72-72-77	3558*/72-72-77
		3432**72-78-82	3585**82-87-89	3629**85-90-92	3672**89-94-96
8	3535	3398*/70-70-76	3504*/71-71-76	3533*/72-72-77	3560*/72-72-77
		3439**72-79-82	3590**82-87-89	3634**86-91-93	3677**89-95-97
6	3536	3400*/70-70-76	3506*/72-72-76	3535*/72-72-77	3562*/72-72-77
		3446**73-80-83	3595**83-88-90	3639**86-91-93	3682**90-96-97
4	3536	3402*/70-70-76	3508*/72-72-76	3537*/72-72-77	3564*/72-72-77
		3453**73-80-83	3600**83-88-91	3644**87-92-94	3686**91-96-98
2	3537	3404*/71-71-76	3510*/72-72-76	3539*/72-72-77	3566*/72-72-77
		3460**74-80-83	3604**84-89-91	3649**88-93-95	3691**91-97-98
0	3537	3406*/71-71-76	3512*/72-72-76	3540*/72-72-77	3567*/72-72-77
		3467**74-80-84	3609**85-89-92	3653**88-94-95	3695**92-98-99
-2	3537	3408*/71-71-76	3514*/72-72-76	3542*/72-72-77	3569*/72-72-77
		3473**75-81-84	3614**85-90-92	3658**89-94-96	3700**92-98-00
-4	3537	3410*/71-71-76	3515*/72-72-77	3543*/72-72-77	3570*/72-72-77
		3480**75-81-85	3619**86-91-93	3662**89-95-97	3703**93-99-00
-6	3537	3412*/71-71-76	3517*/72-72-77	3545*/72-72-77	3572*/72-72-77
		3486**76-82-85	3624**86-92-94	3666**90-96-97	3707**93-99-00
-8	3537	3414*/71-71-76	3518*/72-72-77	3546*/72-72-77	3573*/72-72-77
		3491**76-82-86	3628**87-92-94	3671**91-96-98	3710**93-99-01
-10	3537	3417*/71-71-76	3520*/72-72-77	3548*/72-72-77	3575*/72-72-77
		3496**77-84-86	3633**87-93-95	3675**91-97-99	3713**93-99-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 420 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A2) WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2489*/46-46-51	2557*/49-49-53	2580*/49-49-53	2601*/50-50-54
		2545**59-64-66	2630**64-70-71	2658**66-71-72	2685**67-72-73
58A	2647	2542*/48-48-53	2612*/50-50-54	2635*/51-51-55	2657*/51-51-55
		2596**60-65-67	2681**66-71-73	2710**67-72-74	2738**68-73-75
56A	2714	2602*/49-49-54	2675*/52-52-56	2698*/53-53-57	2721*/53-53-57
		2653**61-65-68	2740**67-73-74	2769**69-74-76	2798**70-75-77
54	2782	2664*/51-51-56	2739*/54-54-58	2762*/54-54-59	2786*/55-55-59
		2711**60-65-68	2802**68-74-75	2831**71-76-78	2861**72-77-79
52	2858	2733*/53-53-58	2810*/56-56-60	2834*/56-56-61	2858*/57-57-61
		2774**61-64-68	2871**69-73-75	2902**73-78-80	2932**74-79-81
50	2933	2801*/55-55-60	2879*/57-57-62	2905*/58-58-63	2930*/59-59-63
		2835**61-64-68	2938**70-75-77	2970**72-77-79	3002**76-81-83
48	3011	2871*/57-57-62	2952*/59-59-64	2978*/60-60-65	3003*/61-61-65
		2897**61-63-67	3006**70-74-77	3039**73-78-80	3072**75-80-82
46	3084	2938*/59-59-64	3020*/61-61-66	3047*/62-62-67	3073*/63-63-67
		2956**60-64-69	3069**70-74-77	3105**73-77-80	3140**76-81-83
44	3155	3001*/60-60-66	3086*/63-63-68	3113*/64-64-68	3140*/65-65-69
		3012**60-65-70	3130**70-73-77	3168**73-77-80	3205**76-81-83
42	3225	3063*/61-62-67	3151*/65-65-69	3179*/65-65-70	3206*/66-66-71
		3068**60-66-70	3188**70-74-77	3228**73-77-80	3266**77-81-83
40	3294	3119*/61-63-69	3213*/66-66-71	3242*/67-67-72	3270*/68-68-73
		3122**60-66-71	3244**70-74-78	3286**73-77-80	3328**77-80-83
38	3360	3170*/60-65-70	3271*/68-68-73	3302*/68-68-73	3332*/69-69-74
		3172**60-67-72	3298**70-75-78	3342**73-77-81	3386**77-81-84
36	3432	3222*/60-66-72	3334*/69-69-74	3365*/70-70-75	3396*/71-71-75
		3224**60-68-73	3354**70-76-80	3398**74-78-82	3460**76-80-83
34	3500	3270*/60-67-73	3391*/70-70-75	3428*/71-71-76	3467*/71-71-76
		3271**60-69-75	3405**70-76-81	3470**73-79-83	3520**76-81-84
32	3526	3293*/61-68-73	3419*/71-71-76	3461*/71-71-76	3495*/71-71-76
		3294**60-69-75	3439**70-77-81	3499**73-80-83	3544**77-82-85
30	3527	3297*/61-68-74	3423*/71-71-76	3464*/71-71-76	3498*/71-71-76
		3299**61-70-75	3446**71-77-81	3504**74-80-84	3549**77-82-85
28	3528	3301*/61-68-74	3427*/71-71-76	3467*/71-71-76	3500*/71-71-76
		3303**61-70-75	3454**71-78-82	3509**74-81-84	3554**78-82-85
26	3528	3306*/62-68-74	3430*/71-71-76	3470*/71-71-76	3503*/71-71-76
		3308**62-70-76	3461**71-78-82	3514**75-81-84	3559**78-83-86
24	3529	3310*/62-68-74	3434*/71-71-76	3473*/71-71-76	3505*/72-72-76
		3312**62-70-76	3468**72-79-83	3519**75-81-84	3564**79-83-86
22	3530	3314*/63-68-74	3437*/71-71-76	3476*/71-71-76	3507*/72-72-76
		3317**63-70-76	3475**72-79-83	3524**76-81-84	3569**79-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3604 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A2)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A2) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3318*/63-68-74	3440*/71-71-76	3478*/71-71-76	3510*/72-72-76
		3322**63-71-76	3482**73-80-83	3529**76-81-85	3574**79-84-87
18	3531	3323*/64-68-74	3443*/71-71-76	3481*/71-71-76	3512*/72-72-76
		3326**64-71-77	3488**73-80-83	3534**77-82-85	3579**80-85-88
16	3532	3327*/64-68-74	3446*/71-71-76	3484*/71-71-76	3514*/72-72-76
		3331**64-72-77	3493**74-80-83	3539**77-82-85	3584**80-85-88
14	3533	3331*/65-69-74	3450*/71-71-76	3487*/71-71-76	3517*/72-72-77
		3335**64-72-77	3498**74-80-84	3544**78-83-86	3590**81-86-89
12	3534	3335*/65-69-74	3453*/71-71-76	3489*/71-71-76	3519*/72-72-77
		3340**65-72-77	3504**75-81-84	3549**78-83-86	3595**82-87-89
10	3535	3339*/66-69-74	3456*/71-71-76	3492*/71-71-76	3522*/72-72-77
		3345**65-73-78	3509**75-81-84	3554**79-84-87	3601**82-87-90
8	3535	3344*/66-69-75	3459*/71-71-76	3494*/71-71-76	3524*/72-72-77
		3350**66-74-78	3514**76-81-84	3559**79-84-87	3606**83-87-90
6	3536	3347*/67-69-75	3462*/71-71-76	3496*/71-71-76	3526*/72-72-77
		3355**66-74-79	3519**76-82-85	3565**80-85-88	3611**83-87-90
4	3536	3351*/67-69-75	3465*/71-71-76	3498*/71-71-76	3528*/72-72-77
		3360**67-75-79	3523**77-82-85	3570**80-86-88	3616**84-88-90
2	3537	3355*/68-69-75	3467*/71-71-76	3500*/71-71-76	3530*/72-72-77
		3364**67-75-80	3528**77-83-86	3575**81-86-89	3621**84-88-91
0	3537	3358*/68-69-75	3469*/71-71-76	3502*/71-71-76	3532*/72-72-77
		3369**68-76-80	3533**78-83-86	3580**81-86-89	3626**85-89-91
-2	3537	3361*/69-69-75	3471*/71-71-76	3504*/71-71-76	3534*/72-72-77
		3374**68-76-80	3538**78-84-87	3585**82-87-89	3631**85-90-92
-4	3537	3363*/69-69-75	3473*/71-71-76	3506*/72-72-76	3535*/72-72-77
		3378**69-76-80	3543**79-84-87	3590**82-87-89	3636**86-91-93
-6	3537	3365*/69-69-75	3475*/71-71-76	3507*/72-72-76	3537*/72-72-77
		3383**69-76-81	3548**79-85-88	3595**83-87-90	3641**86-91-93
-8	3537	3367*/70-70-75	3477*/71-71-76	3509*/72-72-76	3539*/72-72-77
		3387**70-76-81	3553**80-85-88	3600**83-88-90	3646**87-92-94
-10	3537	3369*/70-70-75	3479*/71-71-76	3511*/72-72-76	3540*/72-72-77
		3392**70-77-81	3558**80-86-88	3605**84-88-91	3651**88-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 420 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3604 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A2)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A3) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2415*/43-44-49	2493*/46-46-51	2518*/47-47-52	2543*/48-48-52
		2420**43-47-51	2528**52-56-59	2564**55-58-61	2599**58-62-64
58A	2647	2463*/43-45-50	2546*/48-48-53	2571*/49-49-53	2596*/50-50-54
		2467**43-47-52	2577**53-57-60	2614**56-59-62	2649**59-63-65
56A	2714	2518*/44-47-52	2606*/50-50-54	2632*/50-50-55	2658*/51-51-56
		2520**44-48-53	2633**54-57-61	2670**57-60-63	2706**60-63-66
54	2782	2574*/44-48-54	2667*/51-51-56	2694*/52-52-57	2721*/53-53-58
			2690**54-58-62	2728**58-61-64	2764**61-64-67
52	2858	2625F/45-49-55	2736*/53-53-58	2763*/54-54-59	2790*/55-55-60
			2753**55-59-63	2791**58-61-65	2828**61-64-67
50	2933	2672F/46-51-57	2803*/55-55-60	2831*/56-56-61	2859*/57-57-62
			2813**55-59-64	2851**58-62-66	2889**62-65-68
48	3011	2718F/47-52-58	2870*/56-57-62	2902*/58-58-63	2931*/59-59-64
			2875**55-60-64	2914**59-63-67	2952**62-65-69
46	3084	2758F/48-53-59	2930*/56-58-64	2967*/59-60-65	2997*/60-60-65
			2932**56-60-65	2972**59-63-68	3012**62-66-70
44	3155	2796F/48-54-60	2988*/56-60-65	3026*/59-61-66	3062*/62-62-67
				3029**59-63-68	3070**62-67-71
42	3225	2836F/48-55-62	3033F/56-61-67	3084*/59-62-68	3122*/62-64-69
				3085**59-64-69	3127**62-67-72
40	3294	2873F/49-56-63	3073F/56-62-68	3139*/59-64-69	3179*/62-65-70
					3183**62-67-72
38	3360	2908F/49-56-64	3110F/57-63-69	3180F/59-65-70	3231*/63-66-72
					3233**62-68-73
36	3432	2944F/49-57-65	3148F/57-64-70	3219F/60-66-72	3286*/63-68-73
34	3500	2975F/50-58-66	3182F/58-64-71	3254F/60-66-72	3329F/63-69-74
32	3526	2993F/50-58-66	3201F/58-65-71	3274F/61-67-73	3351F/63-69-75
30	3527	3002F/50-59-66	3210F/58-65-72	3284F/61-67-73	3361F/63-69-75
28	3528	3010F/50-59-67	3220F/58-65-72	3294F/61-68-73	3370*/64-70-75
26	3528	3019F/51-59-67	3229F/59-66-72	3304F/61-68-74	3375*/64-70-75
24	3529	3027F/51-59-67	3239F/59-66-72	3314F/62-68-74	3379*/65-70-75
					3380**65-71-76
22	3530	3036F/51-60-67	3249F/59-66-72	3325F/62-68-74	3384*/65-70-75
					3386**65-71-76
20	3531	3045F/52-60-67	3258F/60-66-73	3335F/62-69-74	3388*/66-70-75
					3391**66-72-77
18	3531	3054F/52-60-68	3268F/60-67-73	3346F/63-69-75	3393*/66-70-76
					3396**66-72-77
16	3532	3062F/52-60-68	3278F/60-67-73	3352*/63-69-75	3397*/67-70-76
					3401**66-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2832 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A3)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A3) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

14	3533	3071F/52-61-68	3289F/61-67-73	3357*/64-69-75	3402*/67-70-76
					3407**67-73-78
12	3534	3081F/53-61-68	3299F/61-68-74	3362*/64-69-75	3406*/68-71-76
				3363**64-70-76	3413**67-74-79
10	3535	3090F/53-61-69	3310F/61-68-74	3366*/65-69-75	3411*/68-71-76
				3369**64-71-76	3421**68-74-79
8	3535	3099F/53-62-69	3320F/62-68-74	3371*/65-70-75	3417*/69-71-76
				3374**65-71-77	3429**68-75-79
6	3536	3108F/54-62-69	3330*/62-68-74	3375*/66-70-75	3423*/69-71-76
				3379**65-72-77	3437**69-75-80
4	3536	3118F/54-62-69	3334*/62-69-74	3379*/66-70-75	3429*/69-71-76
				3384**66-73-78	3444**69-76-80
2	3537	3127F/54-62-69	3338*/63-69-74	3383*/67-70-75	3434*/70-71-76
			3340**63-70-75	3389**66-73-78	3452**70-76-81
0	3537	3136F/55-63-70	3343*/63-69-75	3388*/67-70-75	3438*/70-71-76
			3345**63-70-76	3394**67-74-78	3459**70-77-81
-2	3537	3146F/55-63-70	3347*/64-69-75	3391*/68-70-76	3442*/71-71-76
			3350**64-71-76	3399**67-74-79	3466**70-78-81
-4	3537	3155F/55-63-70	3351*/64-69-75	3395*/68-70-76	3445*/71-71-76
			3355**64-71-77	3404**68-75-79	3474**71-78-82
-6	3537	3165F/56-64-70	3355*/65-69-75	3399*/69-70-76	3447*/71-71-76
			3360**65-72-77	3409**68-75-80	3481**71-79-82
-8	3537	3175F/56-64-71	3359*/66-69-75	3403*/69-70-76	3450*/71-71-76
			3365**65-72-77	3415**69-76-80	3488**72-79-83
-10	3537	3185F/56-64-71	3363*/66-69-75	3406*/70-71-76	3453*/71-71-76
			3369**66-73-78	3423**69-77-81	3493**72-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2832 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A3)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A4) WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2300F/36-40-46	2461*/45-45-50	2488*/46-46-51	2514*/47-47-52
			2465**44-47-52	2503**48-50-54	2541**51-54-57
58A	2647	2335F/36-41-47	2510*/45-47-52	2540*/48-48-52	2567*/49-49-53
			2512**45-47-52	2551**48-51-55	2589**52-54-58
56A	2714	2374F/37-42-48	2563F/46-48-53	2600*/49-49-54	2627*/50-50-55
				2605**49-51-56	2645**52-55-59
54	2782	2415F/38-43-49	2606F/47-49-55	2658*/50-51-56	2689*/52-52-57
				2661**50-52-57	2701**53-55-60
52	2858	2460F/39-44-51	2655F/48-50-56	2722F/51-53-58	2757*/54-54-59
					2764**54-56-61
50	2933	2504F/40-45-52	2701F/49-52-57	2769F/52-54-59	2822*/54-56-61
					2825**54-57-61
48	3011	2548F/41-46-54	2748F/50-53-59	2816F/52-55-61	2882F/55-57-62
46	3084	2589F/41-47-55	2792F/50-54-60	2858F/53-56-62	2924F/55-58-64
44	3155	2630F/42-48-56	2833F/51-55-61	2899F/53-57-63	2967F/56-59-65
42	3225	2672F/43-49-57	2873F/51-56-63	2940F/54-58-64	3009F/57-60-66
40	3294	2712F/44-50-59	2911F/52-57-64	2979F/54-59-65	3049F/57-61-67
38	3360	2748F/45-51-60	2946F/52-58-65	3015F/55-60-66	3085F/58-62-68
36	3432	2783F/45-52-61	2983F/53-58-66	3052F/55-61-67	3124F/58-63-69
34	3500	2813F/45-53-62	3015F/53-59-67	3085F/56-61-68	3157F/58-64-70
32	3526	2829F/45-53-62	3033F/53-60-67	3104F/56-62-69	3176F/59-64-71
30	3527	2837F/46-53-62	3042F/54-60-67	3113F/56-62-69	3186F/59-64-71
28	3528	2845F/46-54-62	3051F/54-60-68	3122F/57-62-69	3196F/59-65-71
26	3528	2853F/46-54-63	3060F/54-60-68	3131F/57-63-70	3205F/60-65-71
24	3529	2861F/46-54-63	3069F/54-61-68	3141F/57-63-70	3215F/60-65-72
22	3530	2870F/47-54-63	3078F/55-61-68	3150F/58-63-70	3225F/60-65-72
20	3531	2878F/47-55-63	3087F/55-61-69	3160F/58-63-70	3235F/61-66-72
18	3531	2886F/47-55-63	3096F/55-62-69	3170F/58-64-71	3245F/61-66-72
16	3532	2895F/48-55-64	3106F/56-62-69	3179F/58-64-71	3255F/61-66-73
14	3533	2903F/48-55-64	3115F/56-62-69	3189F/59-64-71	3265F/62-67-73
12	3534	2912F/48-56-64	3125F/56-62-69	3199F/59-65-71	3276F/62-67-73
10	3535	2921F/48-56-64	3135F/57-63-70	3209F/59-65-71	3286F/62-67-73
8	3535	2929F/49-56-65	3144F/57-63-70	3220F/60-65-72	3297F/63-68-74
6	3536	2938F/49-57-65	3154F/57-63-70	3230F/60-66-72	3308F/63-68-74
4	3536	2947F/49-57-65	3164F/58-64-70	3240F/60-66-72	3319F/63-68-74
2	3537	2956F/50-57-65	3174F/58-64-71	3250F/61-66-72	3330F/64-69-74
0	3537	2965F/50-57-65	3184F/58-64-71	3261F/61-67-73	3342F/64-69-75
-2	3537	2974F/50-58-66	3194F/59-65-71	3271F/61-67-73	3353F/64-69-75
-4	3537	2983F/51-58-66	3204F/59-65-71	3282F/62-67-73	3364F/65-69-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2520 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A4)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A4) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-6	3537	2992F/51-58-66	3214F/59-65-72	3293F/62-67-73	3376F/65-70-75
-8	3537	3001F/51-59-66	3225F/60-65-72	3304F/63-68-74	3384*/65-70-75
-10	3537	3011F/52-59-67	3235F/60-66-72	3315F/63-68-74	3388*/66-70-76 3389**66-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2520 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY
RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A4)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14L(A5) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2057F/25-31-38	2236F/34-37-44	2298F/37-40-46	2361F/40-42-47
58A	2647	2088F/26-31-39	2269F/35-38-45	2332F/38-40-47	2396F/41-43-48
56A	2714	2123F/26-32-41	2306F/36-39-46	2370F/39-41-48	2435F/42-44-50
54	2782	2159F/27-33-42	2345F/36-40-47	2410F/39-43-49	2475F/42-45-51
52	2858	2199F/28-34-43	2388F/37-41-49	2454F/40-44-51	2520F/43-46-52
50	2933	2239F/29-36-45	2430F/38-42-50	2497F/41-45-52	2564F/44-47-54
48	3011	2278F/29-37-46	2472F/39-43-51	2539F/42-46-53	2609F/45-48-55
46	3084	2315F/30-37-47	2511F/40-44-53	2579F/43-47-55	2649F/46-49-56
44	3155	2351F/31-38-48	2550F/40-45-54	2619F/44-48-56	2690F/47-50-58
42	3225	2388F/32-39-50	2590F/41-46-55	2660F/44-49-57	2731F/48-51-59
40	3294	2424F/32-40-51	2628F/42-47-56	2699F/45-50-58	2771F/48-52-60
38	3360	2457F/33-41-52	2663F/43-48-57	2735F/46-51-59	2807F/49-53-61
36	3432	2492F/33-42-53	2700F/43-49-58	2773F/47-52-60	2843F/49-54-62
34	3500	2521F/34-43-54	2732F/44-50-59	2805F/47-52-61	2874F/50-55-63
32	3526	2537F/34-43-54	2750F/44-50-60	2822F/48-53-62	2892F/50-55-64
30	3527	2545F/35-43-55	2759F/45-51-60	2831F/48-53-62	2901F/50-55-64
28	3528	2553F/35-44-55	2767F/45-51-60	2839F/48-53-62	2909F/51-56-64
26	3528	2561F/35-44-55	2776F/45-51-61	2848F/48-54-62	2918F/51-56-64
24	3529	2569F/36-44-55	2785F/46-52-61	2856F/49-54-63	2927F/51-56-65
22	3530	2577F/36-45-55	2794F/46-52-61	2865F/49-54-63	2936F/52-56-65
20	3531	2585F/36-45-56	2803F/47-52-61	2873F/49-54-63	2945F/52-57-65
18	3531	2593F/37-45-56	2812F/47-52-62	2882F/50-55-63	2954F/52-57-65
16	3532	2602F/37-45-56	2820F/47-53-62	2891F/50-55-64	2963F/53-57-65
14	3533	2610F/38-46-56	2829F/47-53-62	2900F/50-55-64	2973F/53-58-66
12	3534	2619F/38-46-57	2838F/48-53-62	2909F/50-56-64	2982F/53-58-66
10	3535	2627F/38-46-57	2847F/48-54-62	2918F/51-56-64	2992F/54-58-66
8	3535	2636F/39-47-57	2856F/48-54-63	2927F/51-56-65	3001F/54-59-66
6	3536	2644F/39-47-57	2864F/49-54-63	2937F/51-56-65	3011F/54-59-67
4	3536	2653F/39-47-57	2873F/49-54-63	2946F/52-57-65	3021F/55-59-67
2	3537	2662F/40-47-58	2882F/49-55-63	2955F/52-57-65	3030F/55-59-67
0	3537	2671F/40-48-58	2891F/50-55-64	2965F/52-57-65	3040F/55-60-67
-2	3537	2680F/41-48-58	2900F/50-55-64	2974F/53-58-66	3050F/56-60-68
-4	3537	2689F/41-48-58	2910F/50-56-64	2984F/53-58-66	3060F/56-60-68
-6	3537	2698F/41-49-59	2919F/51-56-64	2993F/53-58-66	3070F/56-61-68
-8	3537	2707F/42-49-59	2928F/51-56-65	3003F/54-59-66	3080F/57-61-68
-10	3537	2716F/42-49-59	2938F/51-57-65	3013F/54-59-67	3090F/57-61-69

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2070 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.11 PERCENT FOR TODA AND 0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14L(A5)	177	3084	0	226	3111	0	253	25118	0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14R

WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2623*/47-50-54	2687*/48-50-54	2708*/49-50-54	2728*/49-50-54
		2678**65-65-67	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2677*/49-51-55	2743*/50-51-55	2764*/50-51-55	2785*/51-51-55
		2730**62-66-68	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2714	2739*/50-53-57	2808*/52-53-57	2830*/52-53-57	2851*/52-53-57
		2789**63-68-70	2876**72-78-79	2879**72-78-79	2879**72-78-79
54	2782	2802*/52-55-59	2874*/53-55-59	2897*/54-55-59	2919*/54-55-59
		2850**64-68-71	2941**73-78-80	2950**73-80-81	2950**74-80-81
52	2858	2871*/53-57-61	2946*/55-57-61	2970*/55-57-61	2993*/56-57-61
		2918**64-68-71	3015**74-79-81	3032**76-83-84	3032**76-83-84
50	2933	2939*/54-59-63	3016*/56-59-63	3040*/57-59-63	3064*/57-59-63
		2983**65-68-71	3082**74-80-81	3106**78-84-85	3111**77-85-86
48	3011	3011*/56-61-66	3088*/58-61-66	3113*/58-61-66	3138*/59-61-66
		3048**65-67-71	3149**74-80-82	3175**78-84-86	3191**79-87-89
46	3084	3084*/59-63-68	3156*/59-63-68	3182*/59-63-68	3208*/60-63-68
		3109**64-67-70	3215**74-80-82	3243**78-85-86	3267**81-89-90
44	3155	3155*/62-65-69	3222*/60-65-69	3250*/61-65-69	3276*/61-65-69
		3167**64-68-72	3278**74-80-83	3310**78-85-87	3339**81-89-91
42	3225	3223*/64-67-71	3287*/61-67-71	3317*/62-67-71	3346*/63-67-71
			3342**74-81-83	3375**78-85-87	3405**81-90-91
40	3294	3279*/64-68-73	3353*/62-69-73	3383*/63-69-73	3414*/64-69-73
			3403**74-81-84	3454**77-85-87	3496**81-89-91
38	3360	3332*/64-69-74	3414*/63-70-75	3460*/64-70-75	3497*/65-70-75
			3485**74-81-83	3523**77-85-87	3556**81-90-91
36	3432	3387*/64-70-75	3496*/64-71-76	3527*/65-71-76	3557*/65-71-76
			3541**74-81-84	3579**77-86-88	3614**81-90-92
34	3500	3444B/63-71-76	3547*/64-72-76	3578*/65-72-76	3610*/65-72-76
			3593**74-81-85	3633**77-86-89	3670**81-90-92
32	3526	3475B/63-71-76	3572*/64-72-77	3604*/65-72-77	3636*/66-72-77
			3618**74-82-85	3658**77-86-89	3696**81-91-93
30	3527	3483B/63-71-76	3575*/64-72-77	3607*/65-72-77	3639*/66-72-77
			3623**74-82-85	3663**78-87-89	3701**82-91-93
28	3528	3489B/64-71-76	3579*/64-72-77	3611*/65-72-77	3642*/66-72-77
			3629**75-83-86	3669**78-87-90	3706**82-92-94
26	3528	3495B/64-71-76	3582*/64-72-77	3614*/65-72-77	3645*/66-72-77
			3634**75-83-86	3674**79-88-90	3711**83-93-94
24	3529	3500B/65-71-76	3586*/64-72-77	3618*/65-72-77	3649*/66-72-77
			3639**76-84-87	3679**79-89-91	3716**83-93-95
22	3530	3506B/65-72-76	3589*/65-72-77	3621*/65-72-77	3652*/66-72-77
			3645**76-84-87	3684**80-89-91	3721**84-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3512B/66-72-76	3592*/65-72-77	3624*/65-72-77	3655*/66-72-77
			3650**77-85-88	3690**80-90-92	3726**84-94-96
18	3531	3517B/66-72-77	3596*/65-72-77	3628*/66-72-77	3659*/66-72-77
			3656**77-86-88	3695**81-90-92	3731**85-95-97
16	3532	3522B/67-72-77	3599*/65-72-77	3631*/66-72-77	3662*/66-72-77
			3661**78-86-89	3700**81-91-93	3736**85-95-97
14	3533	3528B/67-72-77	3603*/65-72-77	3634*/66-72-77	3665*/67-72-77
		3529**67-74-78	3666**78-87-89	3705**82-91-93	3741**86-96-98
12	3534	3534B/68-72-77	3606*/65-72-77	3638*/66-72-77	3669*/67-72-77
		3535**68-74-79	3672**79-87-90	3711**82-92-94	3746**86-97-98
10	3535	3535*/67-72-77	3610*/65-72-77	3641*/66-72-77	3672*/67-72-77
		3541**68-75-79	3677**79-88-90	3716**83-93-94	3751**87-97-99
8	3535	3535*/67-72-77	3613*/65-72-77	3644*/66-72-77	3675*/67-72-77
		3547**69-75-79	3683**80-88-91	3721**83-93-95	3756**87-98-99
6	3536	3536*/67-72-77	3616*/65-72-77	3647*/66-72-77	3678*/67-72-77
		3553**69-75-79	3688**80-89-91	3727**84-94-96	3761**88-99-00
4	3536	3536*/66-72-77	3619*/65-72-77	3650*/66-72-77	3681*/67-72-77
		3559**70-76-80	3694**81-90-92	3732**85-94-96	3765**88-99-00
2	3537	3537*/66-72-77	3622*/65-72-77	3653*/66-72-77	3684*/67-72-77
		3564**71-76-80	3699**81-90-92	3737**85-95-97	3770**89-00-01
0	3537	3537*/65-72-77	3625*/66-72-77	3656*/66-72-77	3686*/67-72-77
		3570**71-77-81	3704**82-91-93	3742**86-96-97	3775**90-00-02
-2	3537	3537*/65-72-77	3628*/66-72-77	3659*/66-72-77	3689*/67-72-77
		3575**72-77-81	3709**82-91-93	3746**86-96-98	3779**90-01-02
-4	3537	3537*/64-72-77	3630*/66-72-77	3661*/67-72-77	3692*/67-72-77
		3580**72-78-81	3714**83-92-94	3751**87-97-98	3781**90-01-03
-6	3537	3537*/63-72-77	3633*/66-72-77	3664*/67-72-77	3694*/67-72-77
		3586**73-78-82	3719**84-93-95	3755**87-98-99	3781**90-01-03
-8	3537	3538*/63-72-77	3636*/66-72-77	3667*/67-72-77	3697*/67-72-77
		3591**73-79-82	3724**84-93-95	3760**88-98-00	3781**90-01-03
-10	3537	3541*/63-72-77	3639*/66-72-77	3669*/67-72-77	3699*/68-72-77
		3597**74-79-83	3729**85-94-96	3765**89-99-00	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C2) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2613*/47-50-54	2678*/48-50-54	2699*/49-50-54	2720*/49-50-54
		2663**60-64-66	2751**68-73-75	2755**69-74-75	2755**69-74-75
58A	2647	2666*/49-51-55	2734*/50-51-55	2755*/50-51-55	2777*/51-51-55
		2714**61-66-68	2803**69-74-75	2813**70-76-77	2813**71-76-77
56A	2714	2728*/50-53-57	2798*/52-53-57	2821*/52-53-57	2842*/52-53-57
		2772**62-66-68	2864**70-75-76	2879**72-78-79	2879**72-78-79
54	2782	2790*/52-55-59	2864*/53-55-59	2887*/54-55-59	2910*/54-55-59
		2833**63-67-69	2928**71-76-77	2950**74-80-81	2950**74-80-81
52	2858	2859*/53-57-61	2936*/55-57-61	2961*/55-57-61	2984*/56-57-61
		2900**63-66-69	3000**72-77-78	3026**76-81-83	3032**76-83-84
50	2933	2933*/56-59-63	3005*/56-59-63	3030*/57-59-63	3055*/57-59-63
		2964**63-66-69	3068**72-77-79	3094**76-82-83	3111**77-85-86
48	3011	3011*/59-61-66	3077*/58-61-66	3103*/58-61-66	3128*/59-61-66
		3028**63-65-69	3134**72-77-80	3162**76-82-84	3186**79-87-88
46	3084	3082*/63-63-67	3144*/59-63-68	3171*/59-63-68	3198*/60-63-68
		3088**63-65-69	3198**72-78-80	3229**76-82-84	3255**79-87-88
44	3155	3145*/63-65-69	3210*/60-65-69	3238*/61-65-69	3265*/61-65-69
			3262**72-78-81	3295**76-82-85	3325**79-87-89
42	3225	3202*/63-66-71	3274*/61-67-71	3304*/62-67-71	3334*/63-67-71
			3323**73-78-81	3358**76-83-85	3390**79-87-89
40	3294	3257*/63-67-72	3339*/62-69-73	3370*/63-69-73	3401*/64-69-73
			3384**73-79-82	3427**76-83-85	3478**79-87-89
38	3360	3308*/63-69-73	3399*/63-70-75	3441*/64-70-75	3484*/65-70-75
			3456**72-79-82	3504**75-83-85	3539**79-87-89
36	3432	3362*/63-70-75	3482*/64-71-76	3514*/65-71-76	3545*/65-71-76
			3521**72-79-82	3561**75-83-86	3597**79-88-90
34	3500	3410*/63-71-76	3532*/64-72-76	3565*/65-72-76	3597*/65-72-76
			3573**72-79-83	3614**75-84-87	3652**79-88-90
32	3526	3445*/62-71-76	3557*/64-72-77	3590*/65-72-77	3622*/66-72-77
			3597**72-80-83	3639**76-84-87	3677**79-89-91
30	3527	3453*/63-71-76	3561*/64-72-77	3594*/65-72-77	3626*/66-72-77
			3602**73-80-83	3644**76-85-87	3683**80-89-91
28	3528	3462*/63-71-76	3564*/64-72-77	3597*/65-72-77	3629*/66-72-77
			3608**73-81-84	3649**77-85-88	3688**80-90-92
26	3528	3469*/64-71-76	3568*/64-72-77	3601*/65-72-77	3633*/66-72-77
			3613**74-81-84	3654**77-86-88	3693**81-90-92
24	3529	3477*/64-71-76	3571*/64-72-77	3604*/65-72-77	3636*/66-72-77
			3618**74-82-85	3660**78-86-89	3698**81-91-93
22	3530	3484*/64-71-76	3575*/65-72-77	3608*/65-72-77	3639*/66-72-77
			3624**75-82-85	3665**78-87-89	3703**82-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3887 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(C2)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C2) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3490*/65-71-76	3578*/65-72-77	3611*/65-72-77	3643*/66-72-77
			3629**75-83-86	3670**79-87-90	3708**82-92-94
18	3531	3496*/65-71-76	3582*/65-72-77	3614*/66-72-77	3646*/66-72-77
			3634**76-83-86	3675**79-88-90	3713**83-93-94
16	3532	3501*/66-71-76	3585*/65-72-77	3618*/66-72-77	3649*/66-72-77
			3640**76-84-87	3681**80-88-91	3718**83-93-95
14	3533	3506*/66-72-76	3589*/65-72-77	3621*/66-72-77	3652*/67-72-77
			3646**76-84-87	3686**80-89-91	3724**84-94-96
12	3534	3512*/67-72-76	3593*/65-72-77	3625*/66-72-77	3656*/67-72-77
			3652**77-85-88	3692**81-90-92	3729**84-94-96
10	3535	3517*/67-72-77	3596*/65-72-77	3628*/66-72-77	3659*/67-72-77
			3657**77-85-88	3698**81-90-92	3735**85-95-97
8	3535	3523*/67-72-77	3599*/65-72-77	3631*/66-72-77	3663*/67-72-77
		3524**67-74-78	3662**78-86-89	3703**82-91-93	3740**85-96-97
6	3536	3528*/68-72-77	3603*/65-72-77	3635*/66-72-77	3666*/67-72-77
		3529**68-74-78	3668**79-87-89	3708**82-91-93	3744**86-96-98
4	3536	3533*/68-72-77	3606*/65-72-77	3638*/66-72-77	3669*/67-72-77
		3535**68-74-79	3673**79-87-90	3713**83-92-94	3749**87-97-98
2	3537	3537*/69-72-77	3609*/65-72-77	3641*/66-72-77	3672*/67-72-77
		3540**69-75-79	3678**80-88-90	3718**83-93-94	3754**87-97-99
0	3537	3537*/68-72-77	3612*/66-72-77	3643*/66-72-77	3674*/67-72-77
		3546**69-75-79	3684**80-88-91	3723**84-93-95	3758**88-98-99
-2	3537	3537*/68-72-77	3615*/66-72-77	3646*/66-72-77	3677*/67-72-77
		3551**70-75-80	3689**81-89-91	3728**84-94-96	3763**88-99-00
-4	3537	3537*/67-72-77	3617*/66-72-77	3649*/67-72-77	3680*/67-72-77
		3556**70-76-80	3694**81-89-92	3734**85-94-96	3768**89-99-01
-6	3537	3537*/67-72-77	3620*/66-72-77	3652*/67-72-77	3682*/67-72-77
		3562**71-76-80	3700**82-90-92	3739**86-95-97	3772**89-00-01
-8	3537	3537*/66-72-77	3623*/66-72-77	3654*/67-72-77	3685*/67-72-77
		3567**71-77-81	3705**82-91-93	3743**86-96-97	3777**90-01-02
-10	3537	3537*/66-72-77	3626*/66-72-77	3657*/67-72-77	3688*/68-72-77
		3572**72-78-81	3710**83-91-93	3748**87-96-98	3781**91-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3887 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(C2)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C3) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2587*/50-50-54	2651*/48-50-54	2673*/49-50-54	2695*/49-50-54
		2617**57-61-63	2710**62-67-68	2740**66-71-73	2755**69-74-75
58A	2647	2640*/51-51-55	2706*/50-51-55	2729*/50-51-55	2751*/51-51-55
		2667**58-61-64	2762**63-68-69	2792**67-72-73	2813**71-76-77
56A	2714	2701*/53-53-57	2769*/52-53-57	2793*/52-53-57	2816*/52-53-57
		2725**58-61-64	2821**65-69-71	2852**68-73-74	2878**73-78-79
54	2782	2764*/54-54-59	2834*/53-55-59	2859*/54-55-59	2882*/54-55-59
		2783**58-61-64	2883**66-69-72	2915**69-74-75	2942**73-79-80
52	2858	2833*/56-56-61	2905*/55-57-61	2930*/55-57-61	2955*/56-57-61
		2845**58-60-64	2952**67-70-73	2986**70-74-76	3013**74-79-80
50	2933	2901*/58-58-63	2973*/56-59-63	2999*/57-59-63	3025*/57-59-63
		2906**58-60-64	3019**67-70-73	3052**70-75-77	3080**74-79-81
48	3011	2967*/58-60-64	3043*/58-61-66	3070*/58-61-66	3097*/59-61-66
			3084**67-70-73	3118**71-75-77	3148**74-80-81
46	3084	3025*/58-61-66	3109*/59-63-68	3137*/59-63-68	3165*/60-63-68
			3146**67-71-74	3182**71-75-78	3213**74-80-82
44	3155	3080*/58-63-68	3173*/60-65-69	3203*/61-65-69	3231*/61-65-69
			3206**67-71-74	3243**71-76-78	3277**74-80-82
42	3225	3135*/58-64-69	3236*/61-67-71	3266*/62-67-71	3297*/63-67-71
			3265**67-71-75	3304**71-76-79	3341**74-81-83
40	3294	3187*/58-65-71	3298*/62-69-73	3331*/63-69-73	3363*/64-69-73
			3324**67-72-76	3365**71-76-80	3403**74-81-84
38	3360	3235*/58-66-72	3360*/64-70-75	3390*/64-70-75	3430*/65-70-75
			3378**68-72-76	3426**71-76-80	3486**74-81-83
36	3432	3285*/58-68-73	3432*/66-71-76	3469*/65-71-76	3507*/65-71-76
			3446**67-72-76	3501**70-77-80	3542**74-81-84
34	3500	3323F/58-68-74	3500*/66-72-76	3523*/65-72-76	3557*/65-72-76
			3507**67-72-77	3552**70-77-81	3594**74-82-85
32	3526	3343F/58-69-75	3526*/66-72-77	3548*/65-72-77	3582*/66-72-77
			3530**67-73-77	3576**71-77-81	3619**74-82-85
30	3527	3353F/59-69-75	3527*/66-72-77	3552*/65-72-77	3586*/66-72-77
			3536**68-73-78	3582**71-78-82	3624**75-82-86
28	3528	3363F/59-69-75	3528*/66-72-77	3556*/65-72-77	3589*/66-72-77
			3541**68-74-78	3587**72-78-82	3630**75-83-86
26	3528	3372*/59-70-75	3528*/65-72-77	3559*/65-72-77	3593*/66-72-77
			3547**69-74-78	3593**72-79-82	3635**76-84-86
24	3529	3378*/60-70-75	3529*/65-72-77	3563*/65-72-77	3596*/66-72-77
			3553**69-75-79	3598**73-79-83	3641**76-84-87
22	3530	3385*/60-70-75	3532*/65-72-77	3566*/65-72-77	3600*/66-72-77
			3558**70-75-79	3604**73-80-83	3646**77-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3566 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(C3)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C3) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3391*/61-70-76	3536*/65-72-77	3570*/65-72-77	3603*/66-72-77
			3564**70-76-80	3609**73-80-84	3652**77-85-88
18	3531	3397*/61-70-76	3539*/65-72-77	3574*/66-72-77	3607*/66-72-77
			3569**70-76-80	3614**74-81-84	3657**78-86-88
16	3532	3403*/61-70-76	3543*/65-72-77	3577*/66-72-77	3610*/66-72-77
			3575**71-77-81	3620**74-81-85	3662**78-86-89
14	3533	3409*/62-71-76	3547*/65-72-77	3581*/66-72-77	3614*/67-72-77
			3580**71-77-81	3625**75-82-85	3668**79-87-89
12	3534	3417*/62-71-76	3550*/65-72-77	3585*/66-72-77	3618*/67-72-77
			3586**72-78-81	3631**75-83-86	3673**79-87-90
10	3535	3427*/62-71-76	3554*/65-72-77	3588*/66-72-77	3621*/67-72-77
			3592**72-78-82	3637**76-83-86	3679**80-88-90
8	3535	3436*/63-71-76	3558*/65-72-77	3592*/66-72-77	3625*/67-72-77
			3598**73-79-82	3643**76-84-87	3684**80-89-91
6	3536	3444*/63-71-76	3561*/65-72-77	3595*/66-72-77	3628*/67-72-77
			3603**73-79-83	3648**77-84-87	3690**81-89-91
4	3536	3452*/64-71-76	3565*/65-72-77	3598*/66-72-77	3631*/67-72-77
			3609**74-80-83	3654**77-85-88	3695**81-90-92
2	3537	3460*/64-71-76	3568*/65-72-77	3602*/66-72-77	3634*/67-72-77
			3614**74-80-84	3659**78-85-88	3701**82-90-92
0	3537	3468*/64-71-76	3571*/66-72-77	3605*/66-72-77	3637*/67-72-77
			3620**75-81-84	3664**78-86-89	3706**82-91-93
-2	3537	3475*/65-71-76	3574*/66-72-77	3608*/66-72-77	3640*/67-72-77
			3625**75-82-85	3670**79-87-89	3711**83-92-94
-4	3537	3482*/65-71-76	3577*/66-72-77	3611*/67-72-77	3643*/67-72-77
			3631**76-82-85	3675**80-87-90	3716**83-92-94
-6	3537	3488*/66-71-76	3580*/66-72-77	3614*/67-72-77	3646*/67-72-77
			3636**76-83-86	3680**80-88-90	3721**84-93-95
-8	3537	3494*/66-71-76	3583*/66-72-77	3616*/67-72-77	3649*/67-72-77
			3642**77-83-86	3686**81-88-91	3726**84-93-95
-10	3537	3499*/67-71-76	3586*/66-72-77	3619*/67-72-77	3652*/68-72-77
		3500**67-73-78	3647**77-84-87	3691**81-89-91	3731**85-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3566 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(C3)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C4) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2457F/42-45-50	2574*/49-49-53	2598*/49-50-54	2624*/49-50-54
			2585**51-52-56	2623**54-56-59	2660**57-60-63
58A	2647	2494F/42-46-51	2626*/51-51-55	2651*/50-51-55	2677*/51-51-55
			2633**52-53-57	2672**55-57-60	2710**58-60-63
56A	2714	2536F/43-47-52	2686*/52-52-57	2714*/52-53-57	2739*/52-53-57
			2689**52-54-58	2729**56-57-61	2768**59-61-64
54	2782	2579F/44-48-54	2745*/53-54-58	2778*/55-55-59	2802*/54-55-59
				2787**56-58-61	2826**59-61-64
52	2858	2627F/45-50-55	2808*/54-56-60	2847*/57-57-61	2872*/56-57-61
				2849**57-59-63	2890**60-61-64
50	2933	2674F/46-51-57	2866F/54-57-62	2909*/57-58-63	2939*/57-59-63
					2951**60-62-66
48	3011	2720F/47-52-58	2911F/54-58-63	2971*/57-60-65	3011*/59-61-66
					3013**60-62-66
46	3084	2759F/47-53-59	2953F/55-59-64	3020F/57-61-66	3072*/60-63-67
44	3155	2798F/48-54-60	2994F/55-60-65	3062F/58-62-67	3130*/60-64-69
42	3225	2837F/48-55-62	3036F/56-61-67	3104F/58-63-68	3175F/61-65-70
40	3294	2875F/48-56-63	3075F/56-62-68	3145F/59-64-69	3216F/61-66-71
38	3360	2909F/49-56-64	3112F/57-63-69	3182F/59-65-71	3254F/62-67-72
36	3432	2946F/49-57-65	3150F/57-64-70	3222F/60-66-72	3295F/62-68-73
34	3500	2977F/49-58-66	3184F/57-64-71	3256F/60-67-73	3332F/63-69-74
32	3526	2994F/50-58-66	3203F/58-65-71	3276F/60-67-73	3354F/63-69-75
30	3527	3003F/50-59-66	3212F/58-65-72	3286F/61-67-73	3364F/63-69-75
28	3528	3011F/50-59-67	3222F/58-65-72	3296F/61-68-74	3375F/64-70-75
26	3528	3020F/50-59-67	3231F/58-66-72	3307F/61-68-74	3385F/64-70-75
24	3529	3029F/51-59-67	3241F/59-66-72	3317F/61-68-74	3396F/64-70-76
22	3530	3037F/51-60-67	3251F/59-66-72	3328F/62-68-74	3407F/64-71-76
20	3531	3046F/51-60-67	3261F/59-67-73	3338F/62-69-74	3424F/65-71-76
18	3531	3055F/52-60-68	3270F/60-67-73	3349F/62-69-75	3445F/65-71-76
16	3532	3064F/52-61-68	3281F/60-67-73	3359F/63-69-75	3465F/65-71-76
14	3533	3073F/52-61-68	3291F/60-67-73	3370F/63-70-75	3486F/65-71-76
12	3534	3082F/52-61-68	3302F/61-68-74	3381F/63-70-75	3498F/65-71-76
10	3535	3092F/53-61-69	3313F/61-68-74	3392F/64-70-76	3507*/66-72-76
8	3535	3101F/53-62-69	3323F/61-68-74	3403F/64-70-76	3513*/66-72-76
6	3536	3110F/53-62-69	3334F/62-69-74	3418F/64-71-76	3519*/67-72-77
4	3536	3119F/54-62-69	3345F/62-69-75	3439F/64-71-76	3525*/67-72-77
2	3537	3129F/54-63-70	3356F/62-69-75	3460F/65-71-76	3531*/68-72-77
0	3537	3138F/54-63-70	3367F/63-69-75	3482F/65-71-76	3536*/68-72-77
-2	3537	3148F/55-63-70	3378F/63-70-75	3490*/65-71-76	3537*/68-72-77
					3542**69-74-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2820 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(C4)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C4) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-4	3537	3157F/55-63-70	3389F/63-70-76	3496*/66-71-76	3538*/67-72-77 3548**69-74-79
-6	3537	3167F/55-64-70	3400F/64-70-76	3502*/66-71-76	3542*/67-72-77 3554**70-75-79
-8	3537	3177F/56-64-71	3412F/64-71-76	3507*/67-72-76	3545*/67-72-77 3560**70-75-79
-10	3537	3187F/56-64-71	3434F/64-71-76	3513*/67-72-76	3549*/68-72-77 3566**71-75-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2820 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

14R(C4)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(C5) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2301F/35-40-46	2486F/44-46-51	2550F/47-48-53	2587*/50-50-54
					2591**50-52-55
58A	2647	2335F/36-41-47	2523F/45-47-52	2587F/48-49-54	2637*/51-51-55
					2639**51-52-56
56A	2714	2375F/37-42-48	2565F/46-48-53	2630F/48-50-55	2694*/51-53-57
54	2782	2415F/38-43-49	2608F/46-49-55	2674F/49-52-56	2742F/52-54-58
52	2858	2460F/39-44-51	2655F/47-51-56	2723F/50-53-58	2792F/53-55-60
50	2933	2504F/40-45-52	2702F/48-52-57	2771F/51-54-59	2838F/54-56-61
48	3011	2548F/40-46-54	2749F/49-53-59	2817F/52-55-61	2883F/55-57-62
46	3084	2589F/41-47-55	2793F/50-54-60	2859F/53-56-62	2926F/55-58-64
44	3155	2630F/42-48-56	2833F/51-55-61	2900F/53-57-63	2968F/56-59-65
42	3225	2672F/43-49-57	2873F/51-56-63	2941F/54-58-64	3010F/56-60-66
40	3294	2712F/44-50-59	2911F/52-57-64	2980F/54-59-65	3050F/57-61-67
38	3360	2748F/44-51-60	2946F/52-58-65	3015F/55-60-66	3086F/57-62-68
36	3432	2783F/44-52-61	2983F/52-58-66	3053F/55-61-67	3124F/58-63-69
34	3500	2812F/45-53-62	3015F/53-59-67	3085F/55-61-68	3158F/58-64-70
32	3526	2829F/45-53-62	3033F/53-60-67	3104F/56-62-69	3177F/58-64-71
30	3527	2837F/45-53-62	3042F/53-60-67	3113F/56-62-69	3186F/59-64-71
28	3528	2845F/46-54-62	3051F/54-60-68	3123F/56-62-69	3196F/59-65-71
26	3528	2853F/46-54-63	3060F/54-60-68	3132F/57-63-70	3206F/59-65-71
24	3529	2861F/46-54-63	3069F/54-61-68	3141F/57-63-70	3216F/60-65-72
22	3530	2869F/46-54-63	3078F/54-61-68	3151F/57-63-70	3226F/60-66-72
20	3531	2878F/47-55-63	3087F/55-61-69	3160F/58-64-70	3236F/60-66-72
18	3531	2886F/47-55-63	3097F/55-62-69	3170F/58-64-71	3246F/61-66-72
16	3532	2894F/47-55-64	3106F/55-62-69	3180F/58-64-71	3256F/61-66-73
14	3533	2903F/48-55-64	3116F/56-62-69	3190F/59-64-71	3266F/61-67-73
12	3534	2912F/48-56-64	3125F/56-62-69	3200F/59-65-71	3277F/62-67-73
10	3535	2920F/48-56-64	3135F/56-63-70	3210F/59-65-72	3288F/62-67-73
8	3535	2929F/48-56-65	3145F/57-63-70	3220F/59-65-72	3299F/62-68-74
6	3536	2938F/49-57-65	3155F/57-63-70	3230F/60-66-72	3310F/63-68-74
4	3536	2947F/49-57-65	3164F/57-64-70	3241F/60-66-72	3321F/63-68-74
2	3537	2956F/49-57-65	3174F/58-64-71	3251F/61-66-73	3332F/63-69-74
0	3537	2965F/50-57-65	3184F/58-64-71	3261F/61-67-73	3343F/64-69-75
-2	3537	2974F/50-58-66	3195F/58-65-71	3272F/61-67-73	3354F/64-69-75
-4	3537	2983F/50-58-66	3205F/59-65-71	3283F/62-67-73	3366F/64-69-75
-6	3537	2992F/51-58-66	3215F/59-65-72	3294F/62-68-74	3377F/65-70-75
-8	3537	3001F/51-59-66	3225F/59-65-72	3305F/62-68-74	3389F/65-70-76
-10	3537	3011F/51-59-67	3236F/60-66-72	3317F/63-68-74	3401F/65-70-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2507 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(C5) 107 1827 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14R(C6) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2051F/25-30-38	2230F/34-37-44	2293F/37-39-45	2357F/40-42-47
58A	2647	2082F/25-31-39	2263F/34-38-45	2326F/37-40-46	2391F/40-43-48
56A	2714	2116F/26-32-41	2300F/35-39-46	2365F/38-41-48	2430F/41-44-50
54	2782	2152F/27-33-42	2339F/36-40-47	2404F/39-42-49	2470F/42-45-51
52	2858	2193F/27-34-43	2382F/37-41-49	2447F/40-43-50	2515F/43-46-52
50	2933	2232F/28-35-44	2424F/38-42-50	2490F/41-45-52	2559F/44-47-54
48	3011	2271F/29-36-46	2466F/38-43-51	2533F/42-46-53	2602F/45-48-55
46	3084	2307F/30-37-47	2505F/39-44-52	2573F/42-47-54	2643F/45-49-56
44	3155	2344F/30-38-48	2543F/40-45-54	2613F/43-48-56	2684F/46-50-57
42	3225	2381F/31-39-49	2583F/41-46-55	2653F/44-49-57	2725F/47-51-59
40	3294	2416F/32-40-51	2620F/41-47-56	2692F/45-50-58	2764F/48-52-60
38	3360	2449F/32-41-52	2655F/42-48-57	2728F/45-50-59	2801F/49-53-61
36	3432	2484F/33-42-53	2693F/43-49-58	2765F/46-51-60	2837F/49-54-62
34	3500	2513F/33-42-54	2724F/43-50-59	2798F/47-52-61	2868F/49-54-63
32	3526	2529F/34-43-54	2742F/44-50-60	2815F/47-53-62	2885F/50-55-63
30	3527	2537F/34-43-54	2751F/44-50-60	2824F/47-53-62	2894F/50-55-64
28	3528	2545F/34-43-55	2760F/45-51-60	2832F/48-53-62	2903F/50-55-64
26	3528	2553F/35-44-55	2768F/45-51-60	2841F/48-53-62	2911F/51-56-64
24	3529	2561F/35-44-55	2777F/45-51-61	2849F/48-54-63	2920F/51-56-64
22	3530	2569F/36-44-55	2787F/46-52-61	2858F/48-54-63	2929F/51-56-65
20	3531	2577F/36-45-55	2796F/46-52-61	2867F/49-54-63	2938F/52-57-65
18	3531	2585F/36-45-56	2805F/46-52-61	2875F/49-55-63	2947F/52-57-65
16	3532	2593F/37-45-56	2813F/47-52-62	2884F/49-55-63	2957F/52-57-65
14	3533	2602F/37-45-56	2822F/47-53-62	2893F/50-55-64	2966F/52-57-66
12	3534	2610F/37-46-56	2831F/47-53-62	2902F/50-55-64	2975F/53-58-66
10	3535	2619F/38-46-57	2840F/48-53-62	2911F/50-56-64	2985F/53-58-66
8	3535	2627F/38-46-57	2848F/48-54-63	2921F/51-56-64	2995F/53-58-66
6	3536	2636F/38-47-57	2857F/48-54-63	2930F/51-56-65	3004F/54-59-66
4	3536	2645F/39-47-57	2866F/49-54-63	2939F/51-57-65	3014F/54-59-67
2	3537	2654F/39-47-57	2875F/49-54-63	2948F/52-57-65	3024F/54-59-67
0	3537	2662F/40-47-58	2884F/49-55-63	2958F/52-57-65	3033F/55-60-67
-2	3537	2671F/40-48-58	2894F/49-55-64	2967F/52-57-66	3043F/55-60-67
-4	3537	2680F/40-48-58	2903F/50-55-64	2977F/53-58-66	3053F/55-60-68
-6	3537	2689F/41-48-58	2912F/50-56-64	2987F/53-58-66	3063F/56-60-68
-8	3537	2699F/41-49-59	2921F/50-56-64	2996F/53-58-66	3074F/56-61-68
-10	3537	2708F/41-49-59	2931F/51-56-65	3006F/54-59-67	3084F/56-61-68

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2050 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(C6) 107 1827 0

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 14R(P2) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2608*/47-50-54	2674*/48-50-54	2696*/49-50-54	2716*/49-50-54
		2656**59-64-66	2745**67-72-74	2755**69-74-75	2755**69-74-75
58A	2647	2662*/49-51-55	2730*/50-51-55	2751*/50-51-55	2773*/51-51-55
		2707**61-65-67	2797**68-73-74	2813**70-76-77	2813**71-76-77
56A	2714	2723*/50-53-57	2794*/52-53-57	2816*/52-53-57	2839*/52-53-57
		2765**61-65-67	2858**69-74-75	2879**72-78-79	2879**72-78-79
54	2782	2785*/52-55-59	2860*/53-55-59	2883*/54-55-59	2906*/54-55-59
		2826**62-66-69	2921**70-75-76	2948**74-80-81	2950**74-80-81
52	2858	2858*/54-57-61	2931*/55-57-61	2956*/55-57-61	2979*/56-57-61
		2892**62-65-68	2993**71-76-77	3020**75-80-82	3032**76-83-84
50	2933	2933*/57-59-63	3001*/56-59-63	3026*/57-59-63	3050*/57-59-63
		2956**62-65-68	3061**72-76-78	3088**75-81-82	3111**78-85-86
48	3011	3008*/61-61-66	3072*/58-61-66	3098*/58-61-66	3124*/59-61-66
		3019**62-64-68	3127**72-76-79	3156**75-81-83	3181**79-86-87
46	3084	3075*/62-63-67	3139*/59-63-68	3166*/59-63-68	3193*/60-63-68
		3078**62-65-69	3191**72-77-79	3222**75-81-83	3250**79-86-87
44	3155	3135*/62-64-69	3205*/60-65-69	3233*/61-65-69	3260*/61-65-69
			3253**72-77-80	3287**75-81-84	3318**79-86-88
42	3225	3192*/62-66-70	3269*/61-67-71	3299*/62-67-71	3328*/63-67-71
			3314**72-77-80	3350**75-82-84	3383**79-86-88
40	3294	3247*/62-67-72	3333*/62-69-73	3365*/63-69-73	3395*/64-69-73
			3375**72-78-81	3414**75-82-85	3467**78-86-88
38	3360	3297*/62-68-73	3392*/63-70-75	3433*/64-70-75	3477*/65-70-75
			3442**71-78-81	3496**75-82-85	3532**78-86-89
36	3432	3351*/62-69-75	3473*/64-71-76	3508*/65-71-76	3539*/65-71-76
			3512**71-78-81	3552**75-82-85	3589**78-87-89
34	3500	3399*/62-71-76	3526*/64-72-76	3559*/65-72-76	3591*/65-72-76
			3563**71-78-82	3604**75-83-86	3643**78-87-90
32	3526	3428*/62-71-76	3551*/64-72-77	3584*/65-72-77	3616*/66-72-77
			3587**71-78-82	3629**75-83-86	3669**79-88-90
30	3527	3437*/62-71-76	3554*/64-72-77	3588*/65-72-77	3620**76-72-77
			3593**72-79-83	3635**75-84-87	3674**79-88-91
28	3528	3445*/63-71-76	3558*/64-72-77	3591*/65-72-77	3623*/66-72-77
			3598**72-79-83	3640**76-84-87	3679**79-89-91
26	3528	3453*/63-71-76	3562*/64-72-77	3595*/65-72-77	3627*/66-72-77
			3603**73-80-83	3646**76-85-87	3685**80-89-91
24	3529	3462*/63-71-76	3565*/64-72-77	3598*/65-72-77	3630*/66-72-77
			3609**73-81-84	3651**77-85-88	3690**80-90-92
22	3530	3469*/64-71-76	3569*/65-72-77	3601*/65-72-77	3633*/66-72-77
			3614**74-81-84	3656**77-86-88	3695**81-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3837 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(P2) 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P2) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3477*/64-71-76	3572*/65-72-77	3605*/65-72-77	3637*/66-72-77
			3619**74-82-85	3661**78-86-89	3700**81-91-93
18	3531	3484*/64-71-76	3576*/65-72-77	3608*/66-72-77	3640*/66-72-77
			3625**75-82-85	3666**78-87-89	3705**82-92-94
16	3532	3490*/65-71-76	3579*/65-72-77	3612*/66-72-77	3643*/66-72-77
			3630**75-83-86	3672**79-87-90	3710**83-92-94
14	3533	3496*/65-71-76	3583*/65-72-77	3615*/66-72-77	3647*/67-72-77
			3636**76-83-86	3677**79-88-90	3715**83-93-95
12	3534	3501*/66-71-76	3586*/65-72-77	3619*/66-72-77	3650*/67-72-77
			3642**76-84-87	3683**80-89-91	3721**84-93-95
10	3535	3507*/66-72-76	3590*/65-72-77	3622*/66-72-77	3654*/67-72-77
			3647**77-84-87	3689**80-89-91	3726**84-94-96
8	3535	3512*/67-72-76	3593*/65-72-77	3626*/66-72-77	3657*/67-72-77
			3653**77-85-88	3694**81-90-92	3732**85-94-96
6	3536	3517*/67-72-77	3597*/65-72-77	3629*/66-72-77	3660*/67-72-77
		3518**67-74-78	3659**78-85-88	3700**81-90-92	3737**85-95-97
4	3536	3522*/68-72-77	3600*/65-72-77	3632*/66-72-77	3663*/67-72-77
		3524**68-74-78	3664**78-86-89	3705**82-91-93	3742**86-96-97
2	3537	3527*/68-72-77	3603*/65-72-77	3635*/66-72-77	3666*/67-72-77
		3529**68-74-78	3669**79-87-89	3710**82-91-94	3746**86-96-98
0	3537	3532*/69-72-77	3606*/66-72-77	3638*/66-72-77	3669*/67-72-77
		3535**69-74-79	3674**79-87-90	3715**83-92-94	3751**87-97-98
-2	3537	3537*/69-72-77	3609*/66-72-77	3641*/66-72-77	3672*/67-72-77
		3540**69-74-79	3680**80-88-90	3720**84-93-95	3756**87-98-99
-4	3537	3537*/69-72-77	3611*/66-72-77	3643*/67-72-77	3674*/67-72-77
		3545**70-75-79	3685**80-88-91	3725**84-93-95	3760**88-98-00
-6	3537	3537*/68-72-77	3614*/66-72-77	3646*/67-72-77	3677*/67-72-77
		3551**70-75-80	3690**81-89-91	3730**85-94-96	3765**89-99-00
-8	3537	3537*/68-72-77	3617*/66-72-77	3649*/67-72-77	3680*/67-72-77
		3556**71-76-80	3696**81-90-92	3735**85-95-96	3770**89-00-01
-10	3537	3537*/67-72-77	3620*/66-72-77	3651*/67-72-77	3682*/68-72-77
		3561**71-77-81	3701**82-90-92	3741**86-95-97	3774**90-00-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3837 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(P2)	107	1827	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P3) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2582*/49-49-53	2647*/48-50-54	2669*/49-50-54	2691*/49-50-54
		2609**56-60-62	2703**62-66-68	2734**65-70-71	2755**69-74-75
58A	2647	2634*/51-51-55	2701*/50-51-55	2724*/50-51-55	2747*/51-51-55
		2659**57-60-63	2755**63-67-69	2785**66-71-72	2812**71-76-77
56A	2714	2695*/53-53-57	2764*/52-53-57	2788*/52-53-57	2812*/52-53-57
		2716**57-60-63	2814**65-69-71	2845**67-72-73	2872**72-77-78
54	2782	2757*/54-54-59	2829*/53-55-59	2854*/54-55-59	2878*/54-55-59
		2774**57-59-63	2875**65-68-71	2908**68-72-74	2937**73-78-79
52	2858	2827*/56-56-61	2899*/55-57-61	2925*/55-57-61	2950*/56-57-61
		2836**57-59-63	2945**66-70-72	2979**69-73-75	3007**73-78-79
50	2933	2894*/57-58-62	2968*/56-59-63	2994*/57-59-63	3020*/57-59-63
		2896**57-59-64	3010**66-69-72	3044**70-74-76	3074**73-78-80
48	3011	2958*/57-60-64	3037*/58-61-66	3065*/58-61-66	3092*/59-61-66
			3076**66-69-72	3110**70-74-76	3141**73-79-80
46	3084	3015*/57-61-66	3103*/59-63-68	3132*/59-63-68	3160*/60-63-68
			3137**66-70-73	3173**70-74-77	3206**73-79-81
44	3155	3070*/57-62-67	3167*/60-65-69	3197*/61-65-69	3226*/61-65-69
			3197**67-70-74	3235**70-75-78	3269**73-79-82
42	3225	3124*/57-64-69	3229*/61-67-71	3260*/62-67-71	3291*/63-67-71
			3255**67-70-74	3295**70-75-78	3333**73-79-82
40	3294	3176*/57-65-70	3294*/63-69-73	3324*/63-69-73	3357*/64-69-73
			3313**67-71-75	3355**70-75-79	3394**73-80-83
38	3360	3223*/57-66-71	3360*/65-70-75	3383*/64-70-75	3420*/65-70-75
			3367**67-71-75	3411**70-76-79	3472**73-80-83
36	3432	3265F/57-67-73	3430*/67-71-76	3459*/65-71-76	3500*/65-71-76
				3491**70-76-79	3533**73-80-83
34	3500	3301F/58-68-74	3496*/66-71-76	3516*/65-72-76	3550*/65-72-76
				3542**70-76-80	3584**73-80-84
32	3526	3322F/58-68-74	3519*/67-72-77	3541*/65-72-77	3576*/66-72-77
				3566**70-76-80	3609**73-81-84
30	3527	3331F/58-69-74	3525*/67-72-77	3545*/65-72-77	3579*/66-72-77
				3571**70-77-81	3615**74-81-85
28	3528	3341F/59-69-74	3528*/67-72-77	3549*/65-72-77	3583*/66-72-77
			3530**67-73-77	3577**71-77-81	3620**74-82-85
26	3528	3351F/59-69-75	3528*/66-72-77	3552*/65-72-77	3586*/66-72-77
			3536**68-73-78	3582**71-78-81	3625**75-82-86
24	3529	3361F/59-69-75	3529*/66-72-77	3556*/65-72-77	3590*/66-72-77
			3541**68-74-78	3588**72-78-82	3631**75-83-86
22	3530	3371F/59-70-75	3530*/65-72-77	3560*/65-72-77	3594*/66-72-77
			3547**69-74-78	3593**72-79-82	3636**76-84-86

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3517 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(P3)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P3) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3378*/60-70-75	3531*/65-72-77	3563*/65-72-77	3597*/66-72-77
			3553**69-75-79	3599**73-79-83	3642**76-84-87
18	3531	3384*/60-70-75	3532*/65-72-77	3567*/66-72-77	3601*/66-72-77
			3559**70-75-79	3604**73-80-83	3647**77-85-87
16	3532	3390*/61-70-76	3536*/65-72-77	3570*/66-72-77	3604*/66-72-77
			3564**70-76-80	3610**74-80-84	3653**77-85-88
14	3533	3396*/61-70-76	3540*/65-72-77	3574*/66-72-77	3608*/67-72-77
			3570**71-76-80	3615**74-81-84	3658**78-86-88
12	3534	3403*/61-70-76	3544*/65-72-77	3578*/66-72-77	3611*/67-72-77
			3575**71-77-81	3621**75-81-85	3664**78-86-89
10	3535	3409*/62-71-76	3547*/65-72-77	3582*/66-72-77	3615*/67-72-77
			3581**72-77-81	3627**75-82-85	3669**79-87-89
8	3535	3417*/62-71-76	3551*/65-72-77	3585*/66-72-77	3619*/67-72-77
			3587**72-78-81	3632**76-83-86	3675**79-87-90
6	3536	3426*/63-71-76	3554*/65-72-77	3589*/66-72-77	3622*/67-72-77
			3592**73-78-82	3638**76-83-86	3680**80-88-90
4	3536	3435*/63-71-76	3558*/65-72-77	3592*/66-72-77	3625*/67-72-77
			3598**73-79-82	3644**77-84-87	3686**80-89-91
2	3537	3443*/63-71-76	3561*/65-72-77	3595*/66-72-77	3628*/67-72-77
			3604**74-79-83	3649**77-84-87	3691**81-89-91
0	3537	3451*/64-71-76	3564*/66-72-77	3598*/66-72-77	3631*/67-72-77
			3609**74-80-83	3655**78-85-88	3697**81-90-92
-2	3537	3459*/64-71-76	3567*/66-72-77	3601*/66-72-77	3634*/67-72-77
			3615**75-80-84	3660**78-85-88	3702**82-90-93
-4	3537	3467*/65-71-76	3571*/66-72-77	3604*/67-72-77	3637*/67-72-77
			3620**75-81-84	3665**79-86-89	3707**82-91-93
-6	3537	3474*/65-71-76	3574*/66-72-77	3607*/67-72-77	3640*/67-72-77
			3625**76-82-85	3671**79-87-89	3712**83-92-94
-8	3537	3481*/65-71-76	3577*/66-72-77	3610*/67-72-77	3643*/67-72-77
			3631**76-82-85	3676**80-87-90	3717**84-92-94
-10	3537	3488*/66-71-76	3580*/66-72-77	3613*/67-72-77	3646*/68-72-77
			3637**77-83-86	3681**80-88-90	3722**84-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3517 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
14R(P3)	107	1827	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P4) WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2513*/46-47-52	2595*/48-50-54	2621*/49-50-54	2645*/49-50-54
			2625**55-58-61	2660**59-62-64	2693**61-64-66
58A	2647	2561*/47-48-53	2648*/50-51-55	2674*/50-51-55	2699*/51-51-55
			2675**56-59-62	2710**59-62-65	2743**61-65-67
56A	2714	2615*/47-50-55	2714*/53-53-57	2736*/52-53-57	2762*/52-53-57
			2733**57-59-62	2768**60-63-65	2802**62-65-68
54	2782	2670*/48-51-56	2777*/55-55-59	2799*/54-55-59	2826*/54-55-59
			2790**57-59-62	2827**60-62-66	2863**63-66-69
52	2858	2722F/49-53-58	2846*/57-57-61	2869*/55-57-61	2896*/56-57-61
			2852**57-59-63	2891**60-62-66	2929**64-66-69
50	2933	2766F/49-54-59	2912*/58-58-63	2935*/57-59-63	2964*/57-59-63
				2953**61-62-66	2991**64-66-70
48	3011	2810F/50-55-60	2974*/58-60-65	3011*/60-61-66	3034*/59-61-66
				3016**61-63-67	3055**64-67-70
46	3084	2850F/50-56-62	3032*/58-62-66	3075*/61-63-67	3099*/60-63-68
					3116**64-67-71
44	3155	2889F/50-57-63	3087*/58-63-68	3132*/61-64-69	3163*/61-65-69
					3175**64-67-71
42	3225	2930F/51-58-64	3130F/58-64-69	3188*/61-66-70	3225*/63-67-71
					3233**64-68-72
40	3294	2968F/51-59-65	3171F/59-65-70	3241F/61-67-72	3290*/65-68-73
38	3360	3003F/51-59-66	3208F/59-66-71	3280F/62-68-73	3343*/65-70-74
36	3432	3041F/52-60-67	3248F/60-67-72	3322F/62-69-74	3397*/65-71-76
34	3500	3073F/52-61-68	3283F/60-67-73	3359F/62-69-75	3461F/65-71-76
32	3526	3091F/52-61-69	3304F/60-68-74	3381F/63-70-75	3495F/65-71-76
30	3527	3100F/52-62-69	3314F/60-68-74	3391F/63-70-76	3501*/65-71-76
28	3528	3109F/53-62-69	3324F/61-68-74	3402F/63-70-76	3507*/65-72-76
26	3528	3118F/53-62-69	3335F/61-69-74	3413F/64-71-76	3512*/66-72-76
24	3529	3127F/53-62-69	3345F/61-69-75	3433F/64-71-76	3518*/66-72-77
22	3530	3136F/54-63-70	3355F/62-69-75	3453F/64-71-76	3524*/67-72-77
20	3531	3145F/54-63-70	3366F/62-69-75	3474F/64-71-76	3530*/67-72-77
18	3531	3154F/54-63-70	3376F/62-70-75	3484*/64-71-76	3531*/67-72-77
					3536**68-73-77
16	3532	3163F/54-64-70	3387F/63-70-75	3491*/65-71-76	3532*/66-72-77
					3541**68-73-78
14	3533	3172F/55-64-71	3398F/63-70-76	3497*/65-71-76	3536*/67-72-77
					3547**69-74-78
12	3534	3182F/55-64-71	3409F/63-71-76	3503*/66-71-76	3540*/67-72-77
					3553**69-74-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3016 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(P4) 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 14R(P4) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C 100KG -10 0 10 20

10	3535	3191F/55-64-71	3427F/63-71-76	3509*/66-72-76	3544*/67-72-77
					3559**70-75-79
8	3535	3201F/56-65-71	3448F/64-71-76	3515*/67-72-76	3548*/67-72-77
					3565**70-75-79
6	3536	3211F/56-65-72	3462*/64-71-76	3520*/67-72-77	3552*/67-72-77
					3571**71-76-80
4	3536	3220F/56-65-72	3470*/64-71-76	3526*/68-72-77	3555*/67-72-77
					3576**71-76-80
2	3537	3230F/57-66-72	3479*/65-71-76	3531*/68-72-77	3559*/67-72-77
					3582**72-77-81
0	3537	3240F/57-66-72	3486*/65-71-76	3537*/68-72-77	3562*/67-72-77
					3588**72-78-81
-2	3537	3250F/57-66-72	3492*/65-71-76	3537*/68-72-77	3566*/67-72-77
				3543**69-74-79	3593**73-78-82
-4	3537	3260F/58-67-73	3498*/66-71-76	3537*/67-72-77	3569*/67-72-77
				3549**69-75-79	3599**73-79-82
-6	3537	3270F/58-67-73	3503*/66-71-76	3537*/67-72-77	3572*/67-72-77
				3555**70-75-79	3604**74-79-83
-8	3537	3280F/58-67-73	3508*/67-72-76	3540*/67-72-77	3575*/67-72-77
				3560**70-75-79	3610**74-80-83
-10	3537	3291F/59-67-73	3514*/67-72-76	3543*/67-72-77	3579*/68-72-77
				3566**71-75-79	3616**75-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3016 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.05 PERCENT FOR TODA AND -0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

14R(P4) 107 1827 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15

WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2654*/47-50-54	2717*/48-50-54	2737*/49-50-54	2757*/49-50-54
		2716**62-67-69	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2709*/49-51-55	2773*/50-51-55	2794*/50-51-55	2814*/51-51-55
		2766**63-67-69	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2714	2771*/50-53-57	2839*/52-53-57	2860*/52-53-57	2881*/52-53-57
		2822**63-68-70	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	2835*/52-55-59	2906*/53-55-59	2928*/54-55-59	2950*/54-55-59
		2880**63-68-70	2950**73-80-81	2950**73-80-81	2950**74-80-81
52	2858	2905*/53-57-61	2979*/55-57-61	3002*/55-57-61	3024*/56-57-61
		2945**63-68-71	3024**73-81-82	3032**75-83-84	3032**76-83-84
50	2933	2973*/54-59-63	3049*/56-59-63	3073*/57-59-63	3097*/57-59-63
		3008**63-69-71	3092**73-81-83	3111**77-85-86	3111**77-85-86
48	3011	3042*/56-61-66	3122*/58-61-66	3147*/58-61-66	3171*/59-61-66
		3072**63-69-72	3160**73-82-83	3181**77-85-87	3191**79-87-89
46	3084	3108*/57-63-68	3190*/59-63-68	3217*/60-63-68	3242*/60-63-68
		3133**63-69-73	3227**73-82-84	3249**77-86-87	3269**80-89-91
44	3155	3171*/58-65-69	3257*/60-65-69	3285*/61-65-69	3313*/61-65-69
		3193**63-69-73	3292**73-82-84	3317**77-86-88	3341**80-90-91
42	3225	3233*/59-67-71	3325*/61-67-71	3354*/62-67-71	3382*/63-67-71
		3251**63-70-74	3356**73-83-85	3383**77-86-88	3407**80-90-91
40	3294	3294*/60-69-73	3391*/62-69-73	3427*/63-69-73	3468*/64-69-73
		3308**63-70-74	3423**73-83-85	3466**76-86-88	3498**80-90-91
38	3360	3360*/62-70-75	3471*/63-70-75	3505*/64-70-75	3533*/65-70-75
		3362**63-70-75	3501**72-83-85	3531**76-86-88	3558**80-90-92
36	3432	3420*/63-71-76	3534*/64-71-76	3565*/65-71-76	3594*/65-71-76
			3558**72-83-86	3588**76-87-89	3617**80-90-92
34	3500	3488*/62-71-76	3585*/64-72-76	3617*/65-72-76	3648*/65-72-76
			3611**72-83-86	3642**76-87-89	3672**80-91-93
32	3526	3511B/62-72-76	3610*/64-72-77	3643*/65-72-77	3674*/66-72-77
			3636**73-84-87	3668**76-87-90	3698**80-91-93
30	3527	3517B/63-72-77	3614*/64-72-77	3646*/65-72-77	3677*/66-72-77
			3641**73-84-87	3673**77-88-90	3703**81-92-94
28	3528	3523*/63-72-77	3617*/64-72-77	3650*/65-72-77	3681*/66-72-77
			3646**74-85-88	3678**77-89-91	3708**81-92-94
26	3528	3528*/63-72-77	3621*/64-72-77	3653*/65-72-77	3684*/66-72-77
			3651**74-85-88	3683**78-89-91	3713**82-93-95
24	3529	3529*/63-72-77	3625*/65-72-77	3656*/65-72-77	3687*/66-72-77
		3534**64-73-77	3656**75-86-88	3688**78-90-92	3718**82-93-95
22	3530	3530*/63-72-77	3628*/65-72-77	3660*/65-72-77	3691*/66-72-77
		3539**64-73-78	3661**75-86-89	3694**79-90-92	3723**83-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15 WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3531*/62-72-77	3632*/65-72-77	3663*/66-72-77	3694*/66-72-77
		3545**65-74-78	3667**76-87-89	3698**79-91-93	3728**83-95-96
18	3531	3534*/62-72-77	3635*/65-72-77	3667*/66-72-77	3697*/66-72-77
		3550**65-74-78	3672**76-87-90	3703**80-91-93	3733**84-95-97
16	3532	3538*/62-72-77	3638*/65-72-77	3670*/66-72-77	3701*/67-72-77
		3556**66-75-79	3677**77-88-90	3708**80-92-94	3738**84-96-97
14	3533	3542*/62-72-77	3642*/65-72-77	3673*/66-72-77	3704*/67-72-77
		3562**66-75-79	3683**77-89-91	3714**81-92-94	3743**85-96-98
12	3534	3546*/62-72-77	3646*/65-72-77	3677*/66-72-77	3708*/67-72-77
		3567**67-76-80	3688**78-89-91	3719**81-93-95	3748**85-97-98
10	3535	3550*/62-72-77	3649*/65-72-77	3681*/66-72-77	3711*/67-72-77
		3573**67-76-80	3694**78-90-92	3724**82-94-95	3753**86-98-99
8	3535	3553*/63-72-77	3653*/65-72-77	3684*/66-72-77	3714*/67-72-77
		3578**68-77-81	3699**79-90-92	3729**82-94-96	3757**86-98-00
6	3536	3557*/63-72-77	3656*/65-72-77	3687*/66-72-77	3717*/67-72-77
		3584**68-77-81	3704**79-91-93	3735**83-95-96	3762**87-99-00
4	3536	3560*/63-72-77	3659*/65-72-77	3690*/66-72-77	3720*/67-72-77
		3589**68-78-82	3709**80-91-93	3740**84-95-97	3767**88-99-01
2	3537	3564*/63-72-77	3662*/66-72-77	3693*/66-72-77	3723*/67-72-77
		3594**69-78-82	3714**80-92-94	3744**84-96-98	3772**88-00-01
0	3537	3567*/63-72-77	3665*/66-72-77	3696*/66-72-77	3726*/67-72-77
		3600**69-79-82	3719**81-93-95	3749**85-97-98	3776**89-01-02
-2	3537	3570*/63-72-77	3668*/66-72-77	3699*/67-72-77	3728*/67-72-77
		3605**70-79-83	3724**81-93-95	3753**85-97-99	3780**89-01-02
-4	3537	3573*/63-72-77	3671*/66-72-77	3701*/67-72-77	3731*/67-72-77
		3610**70-80-83	3729**82-94-96	3758**86-98-99	3781**90-01-03
-6	3537	3576*/63-72-77	3674*/66-72-77	3704*/67-72-77	3734*/67-72-77
		3616**71-81-84	3734**82-95-96	3763**86-99-00	3781**90-01-03
-8	3537	3580*/63-72-77	3676*/66-72-77	3707*/67-72-77	3736*/68-72-77
		3621**71-81-84	3739**83-95-97	3767**87-99-01	3781**90-01-03
-10	3537	3583*/63-72-77	3679*/66-72-77	3709*/67-72-77	3739*/68-72-77
		3626**72-82-85	3744**84-96-97	3772**88-00-01	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y1) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2644*/47-50-54	2708*/48-50-54	2729*/49-50-54	2749*/49-50-54
		2700**61-65-67	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2698*/49-51-55	2764*/50-51-55	2786*/50-51-55	2806*/51-51-55
		2750**61-65-67	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2714	2761*/50-53-57	2830*/52-53-57	2852*/52-53-57	2873*/52-53-57
		2807**61-65-68	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	2824*/52-55-59	2897*/53-55-59	2919*/54-55-59	2941*/54-55-59
		2864**61-66-68	2941**71-78-80	2950**73-80-81	2950**74-80-81
52	2858	2893*/53-57-61	2969*/55-57-61	2993*/55-57-61	3015*/56-57-61
		2928**61-66-69	3012**71-79-80	3031**75-82-84	3032**76-83-84
50	2933	2961*/54-59-63	3039*/56-59-63	3063*/57-59-63	3087*/57-59-63
		2990**61-66-69	3079**71-79-81	3099**75-83-84	3111**77-85-86
48	3011	3030*/56-61-66	3111*/58-61-66	3136*/58-61-66	3161*/59-61-66
		3054**61-66-70	3146**71-79-81	3169**75-83-85	3188**78-87-88
46	3084	3094*/57-63-68	3179*/59-63-68	3206*/60-63-68	3232*/60-63-68
		3114**61-67-71	3212**71-80-82	3235**75-83-85	3257**78-87-88
44	3155	3157*/58-65-69	3245*/60-65-69	3273*/61-65-69	3301*/61-65-69
		3173**61-67-71	3275**71-80-82	3302**75-84-85	3327**78-87-89
42	3225	3225*/60-67-71	3312*/61-67-71	3342*/62-67-71	3371*/63-67-71
		3230**61-67-72	3339**71-80-83	3366**75-84-86	3392**79-88-89
40	3294	3285*/61-68-73	3377*/62-69-73	3408*/63-69-73	3452*/64-69-73
			3400**71-81-83	3440**75-84-86	3481**78-87-89
38	3360	3337*/61-69-74	3451*/63-70-75	3492*/64-70-75	3522*/65-70-75
			3481**71-80-83	3513**74-84-86	3542**78-88-90
36	3432	3391*/61-71-75	3521*/64-71-76	3552*/65-71-76	3582*/65-71-76
			3538**71-81-84	3570**74-85-87	3600**78-88-90
34	3500	3453*/61-71-76	3571*/64-72-76	3603*/65-72-76	3635*/65-72-76
			3590**71-81-84	3623**74-85-87	3654**78-89-91
32	3526	3486*/61-71-76	3596*/64-72-77	3629*/65-72-77	3661*/66-72-77
			3615**71-82-85	3648**75-85-88	3680**78-89-91
30	3527	3492*/61-71-76	3600*/64-72-77	3632*/65-72-77	3664*/66-72-77
			3620**71-82-85	3653**75-86-88	3685**79-89-92
28	3528	3498*/61-71-76	3603*/64-72-77	3636*/65-72-77	3668*/66-72-77
			3626**72-83-86	3659**76-86-89	3691**79-90-92
26	3528	3503*/62-71-76	3607*/64-72-77	3640*/65-72-77	3671*/66-72-77
			3631**72-83-86	3664**76-87-89	3695**80-91-93
24	3529	3509*/62-72-76	3610*/65-72-77	3643*/65-72-77	3675*/66-72-77
			3636**73-84-87	3669**77-87-90	3700**80-91-93
22	3530	3515*/63-72-76	3614*/65-72-77	3647*/65-72-77	3678*/66-72-77
			3642**73-84-87	3674**77-88-90	3705**81-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3847 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y1)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y1) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3521*/63-72-77	3618*/65-72-77	3650*/66-72-77	3682*/66-72-77
			3647**74-85-87	3679**78-88-91	3710**81-92-94
18	3531	3526*/64-72-77	3621*/65-72-77	3654*/66-72-77	3685*/66-72-77
			3652**74-85-88	3685**78-89-91	3715**82-93-95
16	3532	3532*/64-72-77	3625*/65-72-77	3657*/66-72-77	3688*/67-72-77
			3657**75-86-88	3690**79-90-92	3720**82-93-95
14	3533	3533*/64-72-77	3628*/65-72-77	3660*/66-72-77	3692*/67-72-77
		3538**64-73-77	3663**75-86-89	3696**79-90-92	3726**83-94-96
12	3534	3534*/63-72-77	3632*/65-72-77	3664*/66-72-77	3695*/67-72-77
		3543**65-73-78	3668**76-87-89	3701**80-91-93	3731**83-95-96
10	3535	3535*/63-72-77	3636*/65-72-77	3668*/66-72-77	3699*/67-72-77
		3549**65-74-78	3674**76-87-90	3706**80-91-93	3737**84-95-97
8	3535	3538*/63-72-77	3639*/65-72-77	3671*/66-72-77	3702*/67-72-77
		3555**66-74-79	3679**77-88-90	3711**81-92-94	3741**85-96-97
6	3536	3541*/63-72-77	3643*/65-72-77	3674*/66-72-77	3705*/67-72-77
		3561**66-75-79	3685**77-89-91	3716**81-92-94	3746**85-96-98
4	3536	3545*/63-72-77	3646*/65-72-77	3678*/66-72-77	3708*/67-72-77
		3566**67-75-79	3690**78-89-91	3721**82-93-95	3751**86-97-99
2	3537	3548*/63-72-77	3649*/66-72-77	3681*/66-72-77	3711*/67-72-77
		3571**67-76-80	3695**78-90-92	3727**82-94-95	3755**86-98-99
0	3537	3552*/63-72-77	3652*/66-72-77	3683*/66-72-77	3714*/67-72-77
		3577**68-76-80	3701**79-90-92	3732**83-94-96	3760**87-98-00
-2	3537	3555*/63-72-77	3655*/66-72-77	3686*/67-72-77	3717*/67-72-77
		3582**68-77-81	3705**79-91-93	3737**83-95-97	3765**87-99-00
-4	3537	3558*/63-72-77	3658*/66-72-77	3689*/67-72-77	3720*/67-72-77
		3587**69-78-81	3710**80-91-94	3742**84-96-97	3769**88-00-01
-6	3537	3562*/63-72-77	3661*/66-72-77	3692*/67-72-77	3722*/67-72-77
		3593**69-78-82	3715**81-92-94	3746**85-96-98	3774**89-00-01
-8	3537	3565*/63-72-77	3664*/66-72-77	3695*/67-72-77	3725*/68-72-77
		3598**70-79-82	3720**81-93-95	3751**85-97-98	3778**89-01-02
-10	3537	3568*/63-72-77	3666*/66-72-77	3697*/67-72-77	3727*/68-72-77
		3603**70-79-83	3725**82-93-95	3755**86-97-99	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3847 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y1)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y2) WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2611*/47-50-54	2680*/48-50-54	2702*/49-50-54	2724*/49-50-54
		2646**55-58-61	2733**65-70-71	2752**68-74-75	2755**69-74-75
58A	2647	2664*/49-51-55	2735*/50-51-55	2758*/50-51-55	2780*/51-51-55
		2695**55-58-61	2783**65-70-72	2802**68-74-75	2813**71-76-77
56A	2714	2725*/50-53-57	2799*/52-53-57	2822*/52-53-57	2845*/52-53-57
		2750**56-58-61	2840**65-71-72	2861**68-74-76	2879**72-78-79
54	2782	2787*/52-55-59	2865*/53-55-59	2889*/54-55-59	2912*/54-55-59
		2806**56-58-62	2900**65-71-73	2922**69-75-76	2941**72-78-80
52	2858	2858*/54-57-61	2935*/55-57-61	2961*/55-57-61	2985*/56-57-61
		2868**56-59-63	2966**65-71-74	2990**69-75-77	3012**72-79-80
50	2933	2928*/56-59-63	3004*/56-59-63	3030*/57-59-63	3056*/57-59-63
			3031**65-72-74	3056**69-75-77	3079**72-79-81
48	3011	2989*/56-61-65	3074*/58-61-66	3102*/58-61-66	3128*/59-61-66
			3096**66-72-75	3122**69-76-78	3146**73-79-81
46	3084	3046*/56-62-67	3141*/59-63-68	3169*/60-63-68	3197*/60-63-68
			3158**66-72-75	3186**69-76-78	3212**73-80-82
44	3155	3095F/56-63-68	3205*/60-65-69	3235*/61-65-69	3264*/61-65-69
			3219**66-73-76	3248**69-76-79	3276**73-80-82
42	3225	3138F/56-64-69	3269*/61-67-71	3300*/62-67-71	3331*/63-67-71
			3278**66-73-77	3309**69-77-80	3340**73-80-83
40	3294	3179F/57-65-70	3332*/62-69-73	3365*/63-69-73	3397*/64-69-73
			3338**66-73-77	3370**69-77-80	3401**73-81-83
38	3360	3216F/57-66-71	3391*/63-70-75	3433*/64-70-75	3481*/65-70-75
			3394**66-74-78	3435**69-77-80	3483**72-81-83
36	3432	3256F/57-67-72	3471*/64-71-76	3509*/65-71-76	3541*/65-71-76
			3468**65-74-78	3507**69-77-81	3540**72-81-84
34	3500	3291F/58-68-73	3523*/64-72-76	3558*/65-72-76	3592*/65-72-76
			3524**65-74-78	3558**69-78-81	3592**73-81-84
32	3526	3312F/58-68-74	3548*/64-72-77	3583*/65-72-77	3617*/66-72-77
			3548**66-74-79	3583**69-78-82	3617**73-82-85
30	3527	3322F/58-68-74	3552*/64-72-77	3587*/65-72-77	3621*/66-72-77
			3553**66-75-79	3588**70-78-82	3622**73-82-85
28	3528	3331F/58-69-74	3556*/64-72-77	3591*/65-72-77	3625*/66-72-77
			3558**66-75-79	3593**70-79-83	3628**74-83-86
26	3528	3341F/59-69-74	3560*/64-72-77	3595*/65-72-77	3628*/66-72-77
			3564**67-76-80	3599**71-79-83	3633**74-83-86
24	3529	3351F/59-69-75	3564*/65-72-77	3598*/65-72-77	3632*/66-72-77
			3569**67-76-80	3604**71-80-83	3638**75-84-87
22	3530	3361F/59-69-75	3568*/65-72-77	3602*/65-72-77	3636*/66-72-77
			3574**68-77-81	3610**71-81-84	3644**75-84-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3502 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y2)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y2) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3371F/60-70-75	3571*/65-72-77	3606*/66-72-77	3639*/66-72-77
			3580**68-77-81	3615**72-81-84	3649**76-85-88
18	3531	3381F/60-70-75	3575*/65-72-77	3610*/66-72-77	3643*/66-72-77
			3585**69-78-82	3620**72-82-85	3655**76-85-88
16	3532	3392F/60-70-76	3579*/65-72-77	3613*/66-72-77	3647*/67-72-77
			3590**69-78-82	3625**73-82-85	3660**77-86-89
14	3533	3402F/61-70-76	3583*/65-72-77	3617*/66-72-77	3650*/67-72-77
			3596**70-79-82	3631**73-83-86	3665**77-87-89
12	3534	3414F/61-71-76	3587*/65-72-77	3621*/66-72-77	3654*/67-72-77
			3602**70-79-83	3637**74-83-86	3671**78-87-90
10	3535	3433F/61-71-76	3591*/65-72-77	3625*/66-72-77	3658*/67-72-77
			3608**71-80-83	3643**74-84-87	3676**78-88-90
8	3535	3452F/61-71-76	3595*/65-72-77	3628*/66-72-77	3661*/67-72-77
			3613**71-80-84	3648**75-84-87	3682**79-88-91
6	3536	3471F/61-71-76	3598*/65-72-77	3632*/66-72-77	3665*/67-72-77
			3618**72-81-84	3654**75-85-88	3687**79-89-91
4	3536	3486*/61-71-76	3602*/65-72-77	3635*/66-72-77	3668*/67-72-77
			3624**72-82-85	3659**76-85-88	3693**80-89-92
2	3537	3492*/62-71-76	3605*/66-72-77	3639*/66-72-77	3671*/67-72-77
			3629**73-82-85	3664**76-86-89	3698**80-90-92
0	3537	3498*/62-71-76	3608*/66-72-77	3642*/66-72-77	3675*/67-72-77
			3635**73-83-86	3670**77-87-89	3703**81-91-93
-2	3537	3503*/63-71-76	3612*/66-72-77	3645*/67-72-77	3678*/67-72-77
			3640**74-83-86	3675**77-87-90	3708**81-91-93
-4	3537	3509*/63-72-76	3615*/66-72-77	3648*/67-72-77	3681*/67-72-77
			3645**74-84-87	3680**78-88-90	3713**82-92-94
-6	3537	3515*/64-72-76	3618*/66-72-77	3651*/67-72-77	3684*/67-72-77
			3651**75-84-87	3685**79-88-91	3718**82-92-94
-8	3537	3520*/64-72-77	3621*/66-72-77	3654*/67-72-77	3687*/68-72-77
			3656**75-85-88	3691**79-89-91	3723**83-93-95
-10	3537	3526*/65-72-77	3624*/66-72-77	3657*/67-72-77	3689*/68-72-77
			3662**76-86-88	3696**80-90-92	3728**84-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3502 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y2)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y3) WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2590*/47-50-54	2661*/48-50-54	2684*/49-50-54	2707*/49-50-54
		2608**51-53-57	2707**61-65-67	2728**64-69-71	2747**68-73-74
58A	2647	2647*/50-51-55	2716*/50-51-55	2739*/50-51-55	2762*/51-51-55
		2657**52-54-57	2755**61-66-68	2777**65-69-71	2798**68-73-74
56A	2714	2709*/52-53-57	2779*/52-53-57	2803*/52-53-57	2827*/52-53-57
		2711**52-55-59	2812**61-66-68	2835**65-70-72	2856**68-73-75
54	2782	2766*/52-55-59	2844*/53-55-59	2869*/54-55-59	2893*/54-55-59
			2870**62-66-69	2894**65-70-72	2916**68-74-75
52	2858	2826*/52-56-61	2913*/55-57-61	2940*/55-57-61	2966*/56-57-61
			2934**62-67-70	2960**65-70-73	2985**69-74-76
50	2933	2884F/53-58-62	2981*/56-59-63	3009*/57-59-63	3035*/57-59-63
			2997**62-67-70	3024**65-71-73	3050**69-74-77
48	3011	2928F/53-59-63	3051*/58-61-66	3079*/58-61-66	3107*/59-61-66
			3061**62-67-71	3089**65-71-74	3116**69-75-77
46	3084	2970F/53-60-65	3116*/59-63-68	3146*/60-63-68	3174*/60-63-68
			3122**62-68-71	3152**66-71-75	3180**69-75-78
44	3155	3012F/54-61-66	3179*/60-65-69	3210*/61-65-69	3240*/61-65-69
			3182**62-68-72	3212**66-72-75	3242**69-75-78
42	3225	3053F/54-62-67	3242*/61-67-71	3273*/62-67-71	3306*/63-67-71
			3240**62-68-73	3271**66-72-76	3302**69-76-79
40	3294	3093F/54-62-68	3300F/62-69-73	3337*/63-69-73	3371*/64-69-73
			3297**62-69-73	3331**66-72-76	3363**69-76-79
38	3360	3130F/55-63-69	3341F/63-70-74	3396*/64-70-75	3442*/65-70-75
				3386**66-73-77	3424**69-76-80
36	3432	3169F/55-64-70	3384F/63-70-75	3479*/65-71-76	3515*/65-71-76
				3457**66-73-77	3500**69-76-80
34	3500	3202F/55-65-71	3430F/63-71-76	3529*/65-72-76	3564*/65-72-76
				3516**65-73-77	3551**69-77-81
32	3526	3221F/56-65-72	3470F/63-71-76	3554F/65-72-77	3589*/66-72-77
				3539**66-73-78	3575**69-77-81
30	3527	3230F/56-66-72	3488F/63-71-76	3558*/65-72-77	3593*/66-72-77
				3545**66-74-78	3581**70-78-81
28	3528	3240F/56-66-72	3498F/63-71-76	3562*/65-72-77	3597*/66-72-77
				3551**67-74-79	3586**70-78-82
26	3528	3249F/57-66-72	3508F/64-72-76	3566*/65-72-77	3601*/66-72-77
				3556**67-75-79	3591**71-79-82
24	3529	3258F/57-66-73	3519F/64-72-77	3569*/65-72-77	3604*/66-72-77
				3561**68-75-80	3597**71-79-83
22	3530	3268F/57-67-73	3529F/64-72-77	3573*/65-72-77	3608*/66-72-77
				3567**68-76-80	3603**72-80-83

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y3)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y3) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3277F/57-67-73	3540F/65-72-77	3577*/66-72-77	3612*/66-72-77
			3535**65-73-77	3572**68-76-80	3608**72-80-84
18	3531	3287F/58-67-73	3545*/65-72-77	3581*/66-72-77	3616*/66-72-77
			3541**65-73-78	3577**69-77-81	3613**73-81-84
16	3532	3297F/58-68-74	3549*/65-72-77	3585*/66-72-77	3619*/67-72-77
			3546**66-74-78	3583**69-78-81	3619**73-81-85
14	3533	3307F/58-68-74	3553*/65-72-77	3589*/66-72-77	3623*/67-72-77
			3552**66-74-79	3588**70-78-82	3624**74-82-85
12	3534	3317F/59-68-74	3558*/65-72-77	3593*/66-72-77	3627*/67-72-77
			3558**67-75-79	3594**70-79-82	3630**74-82-86
10	3535	3328F/59-68-74	3562*/65-72-77	3597*/66-72-77	3631*/67-72-77
			3564**67-75-79	3600**71-79-83	3636**75-83-86
8	3535	3338F/59-69-74	3565*/65-72-77	3601*/66-72-77	3635*/67-72-77
			3569**68-76-80	3606**71-80-83	3641**75-84-87
6	3536	3348F/60-69-75	3569*/65-72-77	3604*/66-72-77	3639*/67-72-77
			3575**68-76-80	3611**72-80-84	3647**76-84-87
4	3536	3359F/60-69-75	3573*/65-72-77	3608*/66-72-77	3642*/67-72-77
			3580**68-77-81	3617**72-81-84	3652**76-85-88
2	3537	3369F/60-70-75	3576*/66-72-77	3611*/66-72-77	3645*/67-72-77
			3585**69-77-81	3622**73-81-85	3658**77-85-88
0	3537	3380F/61-70-75	3580*/66-72-77	3615*/66-72-77	3649*/67-72-77
			3591**69-78-82	3627**73-82-85	3663**77-86-89
-2	3537	3391F/61-70-76	3583*/66-72-77	3618*/67-72-77	3652*/67-72-77
			3596**70-79-82	3633**74-82-86	3668**78-86-89
-4	3537	3401F/61-70-76	3587*/66-72-77	3621*/67-72-77	3655*/67-72-77
			3602**70-79-83	3638**74-83-86	3674**78-87-90
-6	3537	3413F/61-71-76	3590*/66-72-77	3625*/67-72-77	3658*/67-72-77
			3607**71-80-83	3644**75-84-87	3679**79-88-90
-8	3537	3433F/62-71-76	3593*/66-72-77	3628*/67-72-77	3661*/68-72-77
			3613**71-80-84	3649**75-84-87	3684**79-88-91
-10	3537	3453F/62-71-76	3597*/66-72-77	3631*/67-72-77	3664*/68-72-77
			3618**72-81-84	3655**76-85-88	3690**80-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3300 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y3)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 15(Y4) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2295F/35-39-45	2480F/44-46-51	2544F/47-48-52	2609F/49-50-54 2599**50-51-55
58A	2647	2329F/36-40-47	2516F/45-47-52	2581F/47-49-54	2647F/50-51-55
56A	2714	2369F/37-41-48	2558F/45-48-53	2624F/48-50-55	2691F/51-52-57
54	2782	2409F/38-42-49	2601F/46-49-54	2668F/49-51-56	2735F/52-54-58
52	2858	2454F/39-44-51	2649F/47-50-56	2716F/50-53-58	2785F/53-55-59
50	2933	2498F/39-45-52	2696F/48-51-57	2764F/51-54-59	2831F/54-56-61
48	3011	2542F/40-46-53	2742F/49-53-59	2811F/52-55-60	2877F/54-57-62
46	3084	2583F/41-47-55	2786F/50-54-60	2852F/53-56-62	2919F/55-58-63
44	3155	2624F/42-48-56	2827F/51-55-61	2893F/53-57-63	2961F/56-59-65
42	3225	2665F/43-49-57	2867F/51-56-62	2935F/54-58-64	3004F/56-60-66
40	3294	2705F/43-50-58	2905F/52-57-64	2973F/54-59-65	3043F/57-61-67
38	3360	2742F/44-51-59	2940F/52-57-65	3009F/55-60-66	3079F/57-62-68
36	3432	2777F/44-52-60	2977F/52-58-66	3047F/55-60-67	3118F/58-63-69
34	3500	2806F/45-52-61	3009F/53-59-66	3079F/55-61-68	3151F/58-63-70
32	3526	2823F/45-53-62	3027F/53-59-67	3098F/56-62-69	3170F/58-64-71
30	3527	2831F/45-53-62	3036F/53-60-67	3107F/56-62-69	3180F/59-64-71
28	3528	2839F/45-53-62	3045F/53-60-67	3116F/56-62-69	3189F/59-64-71
26	3528	2847F/46-54-62	3054F/54-60-68	3125F/57-62-69	3199F/59-65-71
24	3529	2855F/46-54-63	3063F/54-60-68	3135F/57-63-70	3209F/60-65-71
22	3530	2863F/46-54-63	3072F/54-61-68	3144F/57-63-70	3219F/60-65-72
20	3531	2872F/47-54-63	3081F/55-61-68	3154F/57-63-70	3229F/60-66-72
18	3531	2880F/47-55-63	3090F/55-61-69	3163F/58-64-70	3239F/61-66-72
16	3532	2888F/47-55-64	3100F/55-62-69	3173F/58-64-71	3249F/61-66-72
14	3533	2897F/47-55-64	3109F/56-62-69	3183F/58-64-71	3259F/61-67-73
12	3534	2905F/48-55-64	3119F/56-62-69	3193F/59-65-71	3270F/62-67-73
10	3535	2914F/48-56-64	3128F/56-63-70	3203F/59-65-71	3280F/62-67-73
8	3535	2923F/48-56-64	3138F/57-63-70	3213F/59-65-72	3291F/62-67-73
6	3536	2932F/49-56-65	3148F/57-63-70	3224F/60-65-72	3302F/63-68-74
4	3536	2940F/49-57-65	3158F/57-63-70	3234F/60-66-72	3313F/63-68-74
2	3537	2949F/49-57-65	3168F/58-64-70	3244F/60-66-72	3324F/63-68-74
0	3537	2958F/50-57-65	3178F/58-64-71	3255F/61-66-73	3336F/64-69-74
-2	3537	2967F/50-57-66	3188F/58-64-71	3265F/61-67-73	3347F/64-69-75
-4	3537	2976F/50-58-66	3198F/59-65-71	3276F/61-67-73	3358F/64-69-75
-6	3537	2986F/51-58-66	3208F/59-65-71	3287F/62-67-73	3370F/65-70-75
-8	3537	2995F/51-58-66	3219F/59-65-72	3298F/62-68-74	3381F/65-70-75
-10	3537	3004F/51-59-66	3229F/60-66-72	3309F/63-68-74	3393F/65-70-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y4)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 15(Y5) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2050F/25-30-38	2228F/34-37-44	2291F/37-39-45	2354F/40-42-47
58A	2647	2080F/25-31-39	2261F/34-38-45	2324F/37-40-46	2389F/40-42-48
56A	2714	2115F/26-32-40	2298F/35-39-46	2363F/38-41-48	2428F/41-43-50
54	2782	2151F/27-33-42	2337F/36-40-47	2402F/39-42-49	2468F/42-45-51
52	2858	2191F/27-34-43	2379F/37-41-48	2445F/40-43-50	2513F/43-46-52
50	2933	2230F/28-35-44	2422F/38-42-50	2488F/41-44-52	2557F/44-47-54
48	3011	2269F/29-36-46	2464F/38-43-51	2531F/42-46-53	2600F/45-48-55
46	3084	2305F/30-37-47	2503F/39-44-52	2571F/42-47-54	2641F/45-49-56
44	3155	2342F/30-38-48	2541F/40-45-54	2610F/43-48-56	2681F/46-50-57
42	3225	2379F/31-39-49	2581F/41-46-55	2651F/44-49-57	2722F/47-51-59
40	3294	2414F/32-40-51	2618F/41-47-56	2690F/45-49-58	2762F/48-52-60
38	3360	2447F/32-41-52	2653F/42-48-57	2725F/45-50-59	2798F/49-53-61
36	3432	2482F/33-42-53	2690F/43-49-58	2763F/46-51-60	2835F/49-54-62
34	3500	2511F/33-42-54	2722F/43-50-59	2795F/47-52-61	2865F/49-54-63
32	3526	2527F/34-43-54	2740F/44-50-60	2813F/47-53-62	2883F/50-55-63
30	3527	2535F/34-43-54	2749F/44-50-60	2821F/47-53-62	2892F/50-55-64
28	3528	2543F/34-43-55	2757F/45-51-60	2830F/48-53-62	2900F/50-55-64
26	3528	2551F/35-44-55	2766F/45-51-60	2838F/48-53-62	2909F/51-56-64
24	3529	2559F/35-44-55	2775F/45-51-61	2847F/48-54-62	2918F/51-56-64
22	3530	2567F/36-44-55	2784F/46-52-61	2856F/49-54-63	2927F/51-56-65
20	3531	2575F/36-44-55	2793F/46-52-61	2865F/49-54-63	2936F/52-56-65
18	3531	2583F/36-45-56	2803F/46-52-61	2873F/49-54-63	2945F/52-57-65
16	3532	2591F/37-45-56	2811F/47-52-62	2882F/49-55-63	2954F/52-57-65
14	3533	2600F/37-45-56	2820F/47-53-62	2891F/50-55-64	2964F/52-57-65
12	3534	2608F/37-46-56	2829F/47-53-62	2900F/50-55-64	2973F/53-58-66
10	3535	2617F/38-46-56	2837F/48-53-62	2909F/50-56-64	2983F/53-58-66
8	3535	2625F/38-46-57	2846F/48-54-62	2918F/51-56-64	2992F/53-58-66
6	3536	2634F/38-46-57	2855F/48-54-63	2928F/51-56-65	3002F/54-59-66
4	3536	2643F/39-47-57	2864F/49-54-63	2937F/51-56-65	3011F/54-59-67
2	3537	2652F/39-47-57	2873F/49-54-63	2946F/52-57-65	3021F/54-59-67
0	3537	2660F/40-47-58	2882F/49-55-63	2956F/52-57-65	3031F/55-59-67
-2	3537	2669F/40-48-58	2891F/49-55-64	2965F/52-57-65	3041F/55-60-67
-4	3537	2678F/40-48-58	2900F/50-55-64	2975F/53-58-66	3051F/55-60-68
-6	3537	2687F/41-48-58	2910F/50-56-64	2984F/53-58-66	3061F/56-60-68
-8	3537	2696F/41-49-59	2919F/50-56-64	2994F/53-58-66	3071F/56-61-68
-10	3537	2705F/41-49-59	2929F/51-56-65	3004F/54-59-66	3081F/56-61-68

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2050 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
15(Y5)	73	1544	0	86	1740	0			

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32L WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2748*/48-50-54	2834*/50-50-54	2858*/50-50-54	2869*/50-50-54
		2725**63-69-70	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2800*/50-51-55	2890*/51-51-55	2915*/51-51-55	2936*/51-51-55
		2775**63-69-71	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2714	2861*/52-53-57	2954*/53-53-57	2980*/53-53-57	3005*/53-53-57
		2832**63-69-71	2879**72-78-79	2879**72-78-79	2879**72-78-79
54	2782	2924*/53-55-59	3020*/55-55-59	3047*/55-55-59	3073*/55-55-59
		2890**63-69-72	2950**74-80-81	2950**74-80-81	2950**74-80-81
52	2858	2993*/55-57-61	3093*/57-57-61	3121*/57-57-61	3148*/57-57-61
		2956**63-70-72	3023**74-81-82	3032**77-83-84	3032**77-83-84
50	2933	3060*/57-59-63	3154*/58-59-63	3193*/59-59-63	3221*/59-59-63
		3019**63-70-73	3092**74-81-83	3111**77-85-86	3111**79-85-86
48	3011	3129*/59-61-66	3225*/60-61-66	3266*/61-61-66	3296*/61-61-66
		3084**63-70-73	3160**74-82-83	3181**77-85-87	3191**81-87-89
46	3084	3194*/61-63-68	3294*/62-63-68	3328*/62-63-68	3371*/63-63-68
		3145**63-71-74	3226**74-82-84	3249**77-86-87	3270**81-90-91
44	3155	3258*/63-65-69	3364*/63-65-69	3399*/64-65-69	3471*/65-65-69
		3205**63-71-74	3292**74-82-84	3317**77-86-88	3341**81-90-91
42	3225	3319*/64-67-71	3453*/65-67-71	3503*/65-67-71	3535*/65-67-71
		3264**63-71-75	3355**74-82-85	3383**77-86-88	3408**81-90-91
40	3294	3362*/64-69-73	3533*/67-69-73	3568*/67-69-73	3601*/67-69-73
		3322**63-72-76	3422**74-83-85	3466**77-86-88	3499**80-90-91
38	3360	3400*/64-70-75	3592*/68-70-75	3627*/68-70-75	3662*/69-70-75
		3376**63-72-76	3500**73-83-85	3531**77-86-88	3559**80-90-92
36	3432	3457B/63-71-76	3649*/69-71-76	3685*/70-71-76	3721*/70-71-76
		3443**63-72-76	3557**73-83-86	3588**77-87-89	3617**81-91-92
34	3500	3500B/62-72-76	3693*/70-72-76	3731*/70-72-76	3768*/70-72-76
		3503**62-72-76	3609**73-83-86	3642**77-87-89	3673**81-91-93
32	3526	3524B/62-72-77	3720*/70-72-77	3758*/70-72-77	3787F/71-72-77
			3634**73-84-87	3667**77-87-90	3699**81-91-93
30	3527	3527B/63-72-77	3725*/70-72-77	3763*/71-72-77	3787F/71-72-77
		3531**62-73-77	3640**74-84-87	3673**78-88-90	3704**81-92-94
28	3528	3528B/63-72-77	3731*/70-72-77	3769*/71-72-77	3787F/71-72-77
		3536**63-73-77	3645**74-85-87	3678**78-89-91	3709**82-92-94
26	3528	3528B/64-72-77	3737*/70-72-77	3774*/71-72-77	3787F/71-72-77
		3542**63-74-78	3650**75-85-88	3683**79-89-91	3714**82-93-95
24	3529	3529B/64-72-77	3742*/70-72-77	3780*/71-72-77	3787F/71-72-77
		3547**64-74-78	3655**75-86-88	3688**79-90-92	3719**83-94-95
22	3530	3530B/65-72-77	3748*/71-72-77	3785*/71-72-77	3787F/71-72-77
		3553**64-75-79	3660**76-86-89	3693**80-90-92	3724**83-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32L	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32L WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3531B/66-72-77	3753*/71-72-77	3787F/71-72-77	3787F/72-72-77
		3559**65-75-79	3666**76-87-89	3698**80-91-93	3729**84-95-96
18	3531	3531B/66-72-77	3759*/71-72-77	3787F/71-72-77	3787F/72-72-77
		3564**65-76-80	3671**77-87-90	3703**81-91-93	3734**84-95-97
16	3532	3532B/67-72-77	3764*/71-72-77	3787F/71-72-77	3787F/72-72-77
		3570**66-76-80	3676**77-88-90	3708**81-92-94	3739**85-96-97
14	3533	3533B/68-72-77	3770*/71-72-77	3787F/71-72-77	3787F/72-72-77
		3576**66-77-81	3682**78-88-91	3714**82-92-94	3743**86-96-98
12	3534	3537B/68-72-77	3776*/71-72-77	3787F/71-72-77	3787F/72-72-77
		3581**67-77-81	3687**78-89-91	3719**82-93-95	3748**86-97-99
10	3535	3541B/69-72-77	3782*/71-72-77	3787F/71-72-77	3787F/72-72-77
		3587**67-78-82	3693**79-90-92	3724**83-94-95	3753**87-98-99
8	3535	3545B/69-72-77	3787F/71-72-77	3787F/72-72-77	3787F/72-72-77
		3593**68-78-82	3698**79-90-92	3730**83-94-96	3758**87-98-00
6	3536	3548B/70-72-77	3787F/71-72-77	3787F/72-72-77	3787F/72-72-77
		3598**68-79-82	3703**80-91-93	3735**84-95-96	3763**88-99-00
4	3536	3552B/71-72-77	3787F/71-72-77	3787F/72-72-77	3787F/72-72-77
		3604**69-79-83	3708**80-91-93	3740**84-95-97	3768**88-00-01
2	3537	3556B/71-72-77	3787F/71-72-77	3787F/72-72-77	3787F/72-72-77
		3609**69-80-83	3713**81-92-94	3744**85-96-98	3773**89-00-01
0	3537	3608B/70-72-77	3787F/71-72-77	3787F/72-72-77	3787F/72-72-77
		3615**70-80-84	3718**82-93-94	3749**85-97-98	3777**89-01-02
-2	3537	3633B/70-72-77	3787F/71-72-77	3787F/72-72-77	3787F/72-72-77
		3620**70-81-84	3723**82-93-95	3753**86-97-99	3781**90-01-03
-4	3537	3658B/70-72-77	3787F/72-72-77	3787F/72-72-77	3787F/72-72-77
		3625**71-82-85	3728**83-94-96	3758**87-98-99	3781**91-01-03
-6	3537	3684B/71-72-77	3787F/72-72-77	3787F/72-72-77	3787F/72-72-77
		3630**71-82-85	3733**83-94-96	3763**87-99-00	3781**92-01-03
-8	3537	3709B/71-72-77	3787F/72-72-77	3787F/72-72-77	3787F/72-72-77
		3636**72-83-86	3739**84-95-97	3767**88-99-01	3781**92-01-03
-10	3537	3721*/71-72-77	3787F/72-72-77	3787F/72-72-77	3787F/72-72-77
		3641**72-83-86	3743**84-96-97	3772**88-00-01	3781**93-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4000 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32L	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32L(C7) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2047F/25-30-38	2225F/34-37-43	2287F/37-39-45	2351F/40-41-47
58A	2647	2077F/25-31-39	2258F/34-38-45	2321F/37-40-46	2385F/40-42-48
56A	2714	2112F/26-32-40	2295F/35-39-46	2359F/38-41-48	2424F/41-43-49
54	2782	2148F/27-33-42	2333F/36-40-47	2398F/39-42-49	2464F/42-44-51
52	2858	2188F/27-34-43	2376F/37-41-48	2442F/40-43-50	2509F/43-46-52
50	2933	2227F/28-35-44	2418F/38-42-50	2485F/41-44-52	2553F/44-47-53
48	3011	2266F/29-36-46	2460F/38-43-51	2527F/41-45-53	2597F/45-48-55
46	3084	2302F/30-37-47	2499F/39-44-52	2567F/42-46-54	2637F/45-49-56
44	3155	2339F/30-38-48	2538F/40-45-54	2607F/43-47-55	2678F/46-50-57
42	3225	2376F/31-39-49	2577F/41-46-55	2647F/44-48-57	2719F/47-51-59
40	3294	2411F/32-40-50	2615F/41-47-56	2686F/45-49-58	2758F/48-52-60
38	3360	2444F/32-41-51	2650F/42-48-57	2722F/45-50-59	2795F/48-53-61
36	3432	2479F/33-42-53	2687F/43-49-58	2760F/46-51-60	2831F/49-54-62
34	3500	2508F/33-42-53	2718F/43-49-59	2792F/47-52-61	2862F/49-54-63
32	3526	2524F/34-43-54	2736F/44-50-60	2810F/47-52-62	2879F/50-55-63
30	3527	2532F/34-43-54	2745F/44-50-60	2818F/47-53-62	2888F/50-55-64
28	3528	2540F/34-43-54	2754F/45-51-60	2826F/48-53-62	2897F/50-55-64
26	3528	2548F/35-44-55	2763F/45-51-60	2835F/48-53-62	2906F/51-56-64
24	3529	2555F/35-44-55	2772F/45-51-61	2844F/48-53-62	2914F/51-56-64
22	3530	2564F/35-44-55	2781F/46-51-61	2852F/48-54-63	2923F/51-56-64
20	3531	2572F/36-44-55	2790F/46-52-61	2861F/49-54-63	2932F/51-56-65
18	3531	2580F/36-45-56	2799F/46-52-61	2870F/49-54-63	2941F/52-57-65
16	3532	2588F/37-45-56	2808F/47-52-61	2878F/49-55-63	2951F/52-57-65
14	3533	2596F/37-45-56	2816F/47-53-62	2887F/50-55-64	2960F/52-57-65
12	3534	2605F/37-45-56	2825F/47-53-62	2896F/50-55-64	2969F/53-58-66
10	3535	2613F/38-46-56	2834F/48-53-62	2905F/50-55-64	2979F/53-58-66
8	3535	2622F/38-46-57	2843F/48-53-62	2915F/51-56-64	2988F/53-58-66
6	3536	2631F/38-46-57	2852F/48-54-63	2924F/51-56-64	2998F/54-58-66
4	3536	2639F/39-47-57	2861F/48-54-63	2933F/51-56-65	3008F/54-59-67
2	3537	2648F/39-47-57	2870F/49-54-63	2942F/52-57-65	3017F/54-59-67
0	3537	2657F/39-47-58	2878F/49-55-63	2952F/52-57-65	3027F/55-59-67
-2	3537	2666F/40-48-58	2888F/49-55-64	2961F/52-57-65	3037F/55-60-67
-4	3537	2675F/40-48-58	2897F/50-55-64	2971F/53-58-66	3047F/55-60-68
-6	3537	2684F/41-48-58	2906F/50-55-64	2980F/53-58-66	3057F/56-60-68
-8	3537	2693F/41-48-59	2915F/50-56-64	2990F/53-58-66	3067F/56-61-68
-10	3537	2702F/41-49-59	2925F/51-56-64	3000F/54-58-66	3077F/56-61-68

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2048 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32L(C7)	11	151	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32L(C8) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2293F/35-39-45	2472*/44-46-50	2531*/47-48-52	2589*/50-50-54
58A	2647	2327F/36-40-47	2511*/45-47-52	2570*/48-49-53	2629*/50-51-55
56A	2714	2367F/37-41-48	2554*/45-48-53	2615*/48-50-55	2676*/51-52-56
54	2782	2407F/38-42-49	2599F/46-49-54	2661*/49-51-56	2724*/52-53-58
52	2858	2452F/38-44-51	2646F/47-50-56	2712*/50-52-58	2776*/53-54-59
50	2933	2496F/39-45-52	2693F/48-51-57	2761F/51-54-59	2825*/54-56-61
48	3011	2540F/40-46-53	2740F/49-53-59	2809F/52-55-60	2873*/54-57-62
46	3084	2581F/41-47-55	2783F/50-54-60	2850F/53-56-62	2917F/55-58-63
44	3155	2621F/42-48-56	2825F/51-55-61	2891F/53-57-63	2959F/56-59-65
42	3225	2663F/43-49-57	2865F/51-56-62	2932F/54-58-64	3001F/56-60-66
40	3294	2703F/43-50-58	2903F/52-56-63	2971F/54-59-65	3041F/57-61-67
38	3360	2739F/44-51-59	2938F/52-57-64	3006F/55-59-66	3077F/57-62-68
36	3432	2775F/44-52-60	2975F/52-58-66	3044F/55-60-67	3115F/58-63-69
34	3500	2804F/45-52-61	3006F/53-59-66	3077F/55-61-68	3149F/58-63-70
32	3526	2821F/45-53-62	3024F/53-59-67	3095F/56-62-69	3168F/58-64-70
30	3527	2829F/45-53-62	3033F/53-60-67	3104F/56-62-69	3177F/59-64-71
28	3528	2837F/45-53-62	3042F/54-60-67	3114F/56-62-69	3187F/59-64-71
26	3528	2845F/46-54-62	3051F/54-60-68	3123F/57-62-69	3197F/59-65-71
24	3529	2853F/46-54-63	3060F/54-60-68	3132F/57-63-70	3206F/60-65-71
22	3530	2861F/46-54-63	3069F/54-61-68	3142F/57-63-70	3216F/60-65-72
20	3531	2869F/47-54-63	3079F/55-61-68	3151F/57-63-70	3226F/60-66-72
18	3531	2878F/47-55-63	3088F/55-61-69	3161F/58-64-70	3236F/61-66-72
16	3532	2886F/47-55-63	3097F/55-62-69	3171F/58-64-71	3246F/61-66-72
14	3533	2895F/47-55-64	3107F/56-62-69	3181F/58-64-71	3257F/61-66-73
12	3534	2903F/48-55-64	3116F/56-62-69	3191F/59-64-71	3267F/62-67-73
10	3535	2912F/48-56-64	3126F/56-62-69	3201F/59-65-71	3278F/62-67-73
8	3535	2921F/48-56-64	3136F/57-63-70	3211F/59-65-72	3289F/62-67-73
6	3536	2929F/49-56-65	3145F/57-63-70	3221F/60-65-72	3299F/63-68-74
4	3536	2938F/49-57-65	3155F/57-63-70	3231F/60-66-72	3310F/63-68-74
2	3537	2947F/49-57-65	3165F/58-64-70	3241F/60-66-72	3321F/63-68-74
0	3537	2956F/50-57-65	3175F/58-64-71	3252F/61-66-73	3333F/64-69-74
-2	3537	2965F/50-57-65	3185F/58-64-71	3262F/61-67-73	3344F/64-69-75
-4	3537	2974F/50-58-66	3195F/59-65-71	3273F/61-67-73	3355F/64-69-75
-6	3537	2983F/51-58-66	3206F/59-65-71	3284F/62-67-73	3366*/65-69-75
-8	3537	2993F/51-58-66	3216F/59-65-72	3295F/62-68-74	3377*/65-70-75
-10	3537	3002F/51-59-66	3226F/60-66-72	3306F/63-68-74	3387*/65-70-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32L(C8)	11	151	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32L(C9) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2441*/42-45-50	2607*/50-50-54	2642*/50-50-54	2674*/50-50-54
			2602**50-51-55	2633**54-55-58	2662**57-59-61
58A	2647	2479*/42-46-51	2653*/51-51-55	2690*/51-51-55	2724*/51-51-55
			2650**51-52-56	2682**54-56-59	2712**58-59-62
56A	2714	2523*/43-47-52	2700*/52-53-57	2746*/53-53-57	2781*/53-53-57
				2739**55-56-60	2771**58-60-63
54	2782	2567*/44-48-54	2748*/53-54-58	2804*/55-55-59	2840*/55-55-59
				2797**56-57-61	2828**59-61-64
52	2858	2617*/45-49-55	2800*/54-55-60	2860*/56-57-61	2906*/57-57-61
					2892**59-61-65
50	2933	2665F/46-50-56	2848*/54-56-61	2909*/57-58-63	2969*/59-59-63
					2953**60-61-65
48	3011	2711F/47-52-58	2895*/54-58-63	2958*/57-60-64	3022*/60-61-66
					3016**60-62-66
46	3084	2751F/47-53-59	2940*/55-59-64	3003*/57-61-66	3067*/60-63-67
44	3155	2790F/48-53-60	2983*/55-60-65	3047*/58-62-67	3112*/61-64-68
42	3225	2829F/48-54-61	3026*/56-61-66	3091*/58-63-68	3157*/61-65-70
40	3294	2866F/48-55-63	3066F/56-62-68	3134*/59-64-69	3201*/61-66-71
38	3360	2901F/49-56-64	3103F/57-62-69	3172*/59-65-70	3241*/62-67-72
36	3432	2937F/49-57-65	3141F/57-63-70	3212F/60-66-71	3283*/62-68-73
34	3500	2968F/49-58-65	3174F/57-64-71	3247F/60-66-72	3321*/63-68-74
32	3526	2986F/50-58-66	3194F/58-65-71	3267F/60-67-73	3343F/63-69-75
30	3527	2994F/50-58-66	3203F/58-65-71	3276F/61-67-73	3353*/63-69-75
28	3528	3003F/50-59-66	3212F/58-65-72	3286F/61-67-73	3363*/64-69-75
26	3528	3011F/50-59-67	3222F/58-65-72	3296F/61-68-74	3373*/64-70-75
24	3529	3020F/51-59-67	3232F/59-66-72	3307F/61-68-74	3383*/64-70-75
22	3530	3029F/51-59-67	3241F/59-66-72	3317F/62-68-74	3393*/65-70-76
20	3531	3037F/51-60-67	3251F/59-66-72	3327*/62-68-74	3403*/65-70-76
18	3531	3046F/52-60-68	3261F/60-67-73	3337*/62-69-74	3414*/65-71-76
16	3532	3055F/52-60-68	3271F/60-67-73	3347*/63-69-75	3433*/65-71-76
14	3533	3064F/52-61-68	3281F/60-67-73	3357*/63-69-75	3452*/65-71-76
12	3534	3073F/52-61-68	3292F/61-67-73	3367*/63-70-75	3470*/66-71-76
10	3535	3082F/53-61-68	3302*/61-68-74	3378*/64-70-75	3488*/66-71-76
8	3535	3092F/53-61-69	3312*/61-68-74	3388*/64-70-76	3498*/66-71-76
6	3536	3101F/53-62-69	3322*/62-68-74	3398*/64-70-76	3508*/67-72-76
4	3536	3110F/54-62-69	3332*/62-69-74	3408*/65-71-76	3518*/67-72-77
2	3537	3119F/54-62-69	3342*/62-69-75	3425*/65-71-76	3528*/67-72-77
0	3537	3129F/54-63-70	3352*/63-69-75	3444*/65-71-76	3539*/68-72-77
-2	3537	3138F/55-63-70	3362*/63-69-75	3462*/65-71-76	3551*/68-72-77
					3543**68-73-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2812 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32L(C9)	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32L(C9) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

-4	3537	3148F/55-63-70	3373*/63-70-75	3481*/66-71-76	3564*/69-72-77 3549**69-74-78
-6	3537	3158F/55-63-70	3383*/64-70-75	3493*/66-71-76	3576*/70-72-77 3555**69-74-79
-8	3537	3167F/56-64-70	3393*/64-70-76	3503*/66-71-76	3589*/70-72-77 3561**70-75-79
-10	3537	3177F/56-64-71	3404*/65-70-76	3514*/67-72-76	3601*/71-72-77 3567**70-75-79

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2812 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32L(C9)	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32LC10 WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2675*/48-50-54	2772*/50-50-54	2799*/50-50-54	2826*/50-50-54
		2669**56-60-62	2738**66-71-72	2755**69-74-75	2755**69-74-75
58A	2647	2726*/50-51-55	2825*/51-51-55	2853*/51-51-55	2880*/51-51-55
		2717**57-60-63	2788**66-71-73	2807**70-75-76	2813**71-76-77
56A	2714	2784*/52-53-57	2886*/53-53-57	2915*/53-53-57	2944*/53-53-57
		2772**57-60-63	2845**67-72-73	2866**70-75-77	2879**72-78-79
54	2782	2844*/53-55-59	2950*/55-55-59	2980*/55-55-59	3009*/55-55-59
		2829**57-61-64	2906**67-72-74	2927**70-76-77	2946**74-80-81
52	2858	2910*/55-57-61	3020*/57-57-61	3050*/57-57-61	3080*/57-57-61
		2891**57-61-65	2972**67-72-74	2996**70-76-78	3017**74-80-81
50	2933	2976*/57-59-63	3076*/58-59-63	3119*/59-59-63	3150*/59-59-63
		2952**57-61-65	3037**67-73-75	3062**70-76-78	3085**74-80-82
48	3011	3019*/57-61-66	3144*/60-61-66	3190*/61-61-66	3222*/61-61-66
		3014**57-62-66	3102**67-73-76	3129**71-77-79	3153**74-81-82
46	3084	3064*/57-63-67	3209*/62-63-68	3244*/62-63-68	3290*/63-63-68
			3165**67-73-76	3193**71-77-79	3219**74-81-83
44	3155	3109*/57-64-68	3272*/63-65-69	3310*/64-65-69	3360*/65-65-69
			3226**67-73-77	3256**71-77-80	3284**74-81-83
42	3225	3154*/58-65-70	3338*/65-67-71	3377*/65-67-71	3420*/65-67-71
			3286**67-74-77	3317**71-78-80	3347**74-81-84
40	3294	3197*/58-66-71	3402*/67-69-73	3474*/67-69-73	3517*/67-69-73
			3346**67-74-78	3378**71-78-81	3410**74-82-84
38	3360	3237*/58-67-72	3499*/68-70-75	3537*/68-70-75	3574*/69-70-75
			3401**67-74-78	3447**71-78-81	3492**74-82-84
36	3432	3279*/59-68-73	3538*/68-71-76	3592*/70-71-76	3631*/70-71-76
			3479**67-74-78	3515**70-78-81	3549**74-82-85
34	3500	3317*/59-68-74	3572*/68-72-76	3634*/70-72-76	3674*/70-72-76
			3531**67-75-79	3567**70-78-82	3601**74-82-85
32	3526	3338*/59-69-74	3593*/68-72-77	3660*/70-72-77	3700*/71-72-77
			3555**67-75-79	3591**71-79-82	3626**74-83-86
30	3527	3347*/59-69-75	3604*/68-72-77	3666*/71-72-77	3706*/71-72-77
			3561**68-76-80	3597**71-79-83	3632**75-83-86
28	3528	3356*/60-69-75	3615*/69-72-77	3672*/71-72-77	3712*/71-72-77
			3566**68-76-80	3602**72-80-83	3637**75-84-87
26	3528	3365*/60-69-75	3627*/69-72-77	3677*/71-72-77	3718*/71-72-77
			3571**68-77-80	3607**72-80-84	3642**76-84-87
24	3529	3375*/60-70-75	3638*/70-72-77	3683*/71-72-77	3723*/71-72-77
			3576**69-77-81	3613**73-81-84	3648**76-85-88
22	3530	3384*/61-70-75	3649*/71-72-77	3689*/71-72-77	3729*/71-72-77
			3582**69-78-81	3618**73-81-85	3653**77-85-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3585 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32LC10 11 151 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32LC10 WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3393*/61-70-76	3661*/71-72-77	3695*/71-72-77	3749*/72-72-77
			3587**70-78-82	3623**73-82-85	3658**77-86-89
18	3531	3403*/61-70-76	3672*/72-72-77	3701*/71-72-77	3754*/72-72-77
			3593**70-79-82	3629**74-83-86	3664**78-86-89
16	3532	3413*/61-71-76	3667*/71-72-77	3707*/71-72-77	3760*/72-72-77
			3598**71-79-83	3634**74-83-86	3669**78-87-90
14	3533	3430*/62-71-76	3673*/71-72-77	3713*/71-72-77	3766*/72-72-77
			3604**71-80-83	3640**75-84-87	3674**79-88-90
12	3534	3447*/62-71-76	3679*/71-72-77	3719*/71-72-77	3772*/72-72-77
			3610**72-80-84	3646**75-84-87	3680**79-88-91
10	3535	3464*/62-71-76	3685*/71-72-77	3725*/71-72-77	3777*/72-72-77
			3615**72-81-84	3651**76-85-88	3686**80-89-91
8	3535	3480*/62-71-76	3691*/71-72-77	3745*/72-72-77	3783*/72-72-77
			3621**73-81-85	3657**76-85-88	3691**80-89-92
6	3536	3492*/62-71-76	3697*/71-72-77	3750*/72-72-77	3787F/72-72-77
			3626**73-82-85	3662**77-86-89	3697**81-90-92
4	3536	3502*/63-71-76	3702*/71-72-77	3756*/72-72-77	3787F/72-72-77
			3632**74-82-86	3667**77-86-89	3702**81-91-93
2	3537	3511*/63-72-76	3708*/71-72-77	3761*/72-72-77	3787F/72-72-77
			3637**74-83-86	3673**78-87-90	3707**82-91-93
0	3537	3520*/64-72-77	3714*/71-72-77	3766*/72-72-77	3787F/72-72-77
			3642**75-84-87	3678**79-88-90	3712**82-92-94
-2	3537	3530*/64-72-77	3719*/71-72-77	3771*/72-72-77	3787F/72-72-77
			3648**75-84-87	3683**79-88-91	3717**83-92-94
-4	3537	3540*/64-72-77	3738*/72-72-77	3777*/72-72-77	3787F/72-72-77
		3538**64-73-77	3653**76-85-88	3689**80-89-91	3722**83-93-95
-6	3537	3552*/65-72-77	3744*/72-72-77	3782*/72-72-77	3787F/72-72-77
		3544**65-73-78	3659**76-85-88	3694**80-89-92	3727**84-94-95
-8	3537	3564*/66-72-77	3749*/72-72-77	3787*/72-72-77	3787F/72-72-77
		3549**65-74-78	3664**77-86-89	3700**81-90-92	3732**85-94-96
-10	3537	3576*/66-72-77	3754*/72-72-77	3787F/72-72-77	3787F/72-72-77
		3555**66-74-79	3669**77-87-89	3705**81-91-93	3737**85-95-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 410 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3585 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.05 PERCENT FOR TODA AND 0.05 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
32LC10	11	151	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2936F/47-50-54	3124F/48-50-54	3190F/49-50-54	3256F/49-50-54
		2736**63-70-72	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2975F/49-51-55	3165F/50-51-55	3231F/50-51-55	3299F/50-51-55
		2786**63-71-72	2813**70-76-77	2813**70-76-77	2813**70-76-77
56A	2714	3020F/50-53-57	3211F/51-53-57	3279F/52-53-57	3350F/52-53-57
		2843**64-71-73	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	3065F/51-55-59	3259F/53-55-59	3329F/54-55-59	3402F/54-55-59
		2903**64-71-73	2950**73-80-81	2950**73-80-81	2950**74-80-81
52	2858	3114F/53-57-61	3313F/55-57-61	3385F/55-57-61	3495F/56-57-61
		2969**64-72-74	3032**74-83-84	3032**75-83-84	3032**76-83-84
50	2933	3162F/54-59-63	3367F/56-59-63	3465F/57-59-63	3548F/57-59-63
		3033**64-72-74	3100**74-83-84	3111**77-85-86	3111**77-85-86
48	3011	3211F/55-61-66	3428F/57-61-66	3528F/58-61-66	3601F/59-61-66
		3098**64-72-75	3170**74-83-85	3189**78-87-88	3191**79-87-89
46	3084	3256F/57-63-68	3505F/59-63-68	3577F/59-63-68	3651F/60-63-68
		3161**63-73-76	3236**74-83-85	3258**78-87-89	3271**81-90-91
44	3155	3302F/58-65-69	3553F/60-65-69	3626F/61-65-69	3700F/61-65-69
		3222**63-73-76	3303**74-84-86	3328**78-87-89	3350**81-91-92
42	3225	3349F/59-67-71	3600F/61-67-71	3674F/62-67-71	3749F/63-67-71
		3280**63-73-77	3367**74-84-86	3393**78-88-89	3420**81-91-93
40	3294	3394F/60-69-73	3646F/62-69-73	3721F/63-69-73	3787F/64-69-73
		3340**63-73-77	3441**74-84-86	3482**77-88-89	3508**81-91-93
38	3360	3456F/61-70-75	3689F/63-70-75	3765F/64-70-75	3787F/65-70-75
		3395**63-74-78	3513**73-84-86	3542**77-88-90	3569**81-92-93
36	3432	3507B/61-71-76	3733F/64-71-76	3787F/64-71-76	3787F/65-71-76
		3467**62-74-78	3570**73-85-87	3600**77-88-90	3628**81-92-94
34	3500	3529B/61-72-76	3772F/64-72-76	3787F/64-72-76	3787F/65-72-76
		3518**61-73-78	3624**73-85-88	3655**77-89-91	3684**81-92-94
32	3526	3533B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3540**61-74-78	3649**74-85-88	3681**77-89-91	3710**81-93-95
30	3527	3552B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3546**61-74-78	3654**74-86-88	3686**78-90-92	3715**82-93-95
28	3528	3571B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3552**62-75-79	3659**74-86-89	3691**78-90-92	3720**82-94-96
26	3528	3590B/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3557**62-75-79	3664**75-87-89	3696**79-91-93	3725**83-94-96
24	3529	3610B/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3562**63-76-80	3669**75-87-90	3701**79-91-93	3730**83-95-97
22	3530	3621F/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3568**63-76-80	3675**76-88-90	3706**80-92-94	3735**84-96-97

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3631F/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3573**64-77-81	3680**76-88-91	3711**80-92-94	3739**84-96-98
18	3531	3641F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3579**64-77-81	3685**77-89-91	3716**81-93-95	3744**85-97-98
16	3532	3652F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3585**65-78-81	3690**77-90-92	3721**81-93-95	3749**85-97-99
14	3533	3662F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3590**65-78-82	3696**78-90-92	3726**82-94-96	3754**86-98-99
12	3534	3673F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3596**66-79-82	3701**78-91-93	3731**82-95-96	3759**86-99-00
10	3535	3684F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3602**66-79-83	3706**79-91-93	3737**83-95-97	3764**87-99-00
8	3535	3695F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3608**67-80-83	3711**79-92-94	3741**83-96-97	3768**87-00-01
6	3536	3706F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3614**67-80-84	3717**80-92-94	3746**84-96-98	3773**88-00-02
4	3536	3717F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3619**68-81-84	3722**81-93-95	3751**85-97-99	3777**89-01-02
2	3537	3728F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3625**69-82-85	3727**81-94-95	3755**85-98-99	3780**89-01-03
0	3537	3739F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3630**69-82-85	3732**82-94-96	3760**86-98-00	3780**89-01-03
-2	3537	3750F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3636**70-83-86	3737**82-95-97	3765**86-99-00	3781**89-01-03
-4	3537	3762F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3641**70-83-86	3742**83-96-97	3769**87-00-01	3781**89-01-03
-6	3537	3773F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3647**71-84-87	3746**83-96-98	3774**87-00-01	3781**90-01-03
-8	3537	3785F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3653**72-85-87	3751**84-97-98	3778**88-01-02	3781**90-01-03
-10	3537	3787F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3659**72-85-88	3755**85-97-99	3781**89-01-03	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4019 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
32R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R(A6) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2062F/25-31-39	2242F/34-38-44	2304F/37-40-46	2368F/40-42-48
58A	2647	2092F/26-32-40	2275F/35-38-45	2338F/38-41-47	2403F/41-43-49
56A	2714	2127F/26-33-41	2312F/36-39-46	2377F/39-42-48	2442F/42-44-50
54	2782	2164F/27-34-42	2351F/36-40-47	2416F/39-43-49	2482F/42-45-51
52	2858	2204F/28-35-43	2394F/37-42-49	2460F/40-44-51	2527F/43-46-53
50	2933	2244F/29-36-45	2436F/38-43-50	2503F/41-45-52	2571F/44-47-54
48	3011	2283F/29-37-46	2478F/39-44-52	2546F/42-46-53	2615F/45-48-55
46	3084	2319F/30-38-47	2517F/40-45-53	2586F/43-47-55	2656F/46-49-57
44	3155	2356F/31-39-49	2556F/40-46-54	2626F/43-48-56	2697F/47-50-58
42	3225	2393F/31-40-50	2596F/41-47-55	2666F/44-49-57	2738F/47-51-59
40	3294	2428F/32-40-51	2634F/42-48-56	2705F/45-50-58	2778F/48-52-60
38	3360	2462F/33-41-52	2669F/43-48-58	2741F/46-51-59	2813F/49-53-61
36	3432	2497F/33-42-53	2706F/43-49-59	2779F/46-52-61	2850F/49-54-62
34	3500	2526F/34-43-54	2738F/44-50-60	2811F/47-53-61	2881F/50-55-63
32	3526	2542F/34-43-54	2756F/44-51-60	2828F/47-53-62	2898F/50-55-64
30	3527	2550F/35-44-55	2765F/45-51-60	2836F/48-53-62	2907F/50-56-64
28	3528	2558F/35-44-55	2773F/45-51-61	2845F/48-54-62	2916F/51-56-64
26	3528	2566F/35-44-55	2782F/45-51-61	2854F/48-54-63	2925F/51-56-64
24	3529	2574F/36-44-55	2791F/46-52-61	2862F/49-54-63	2934F/51-56-65
22	3530	2582F/36-45-56	2800F/46-52-61	2871F/49-54-63	2943F/52-57-65
20	3531	2590F/36-45-56	2809F/46-52-62	2880F/49-55-63	2952F/52-57-65
18	3531	2599F/37-45-56	2818F/47-53-62	2889F/49-55-64	2961F/52-57-65
16	3532	2607F/37-46-56	2826F/47-53-62	2897F/50-55-64	2970F/52-58-66
14	3533	2615F/37-46-56	2835F/47-53-62	2906F/50-56-64	2979F/53-58-66
12	3534	2624F/38-46-57	2844F/48-53-62	2916F/50-56-64	2989F/53-58-66
10	3535	2632F/38-46-57	2853F/48-54-63	2925F/51-56-64	2999F/53-58-66
8	3535	2641F/38-47-57	2862F/48-54-63	2934F/51-56-65	3008F/54-59-67
6	3536	2650F/39-47-57	2871F/49-54-63	2943F/51-57-65	3018F/54-59-67
4	3536	2659F/39-47-58	2880F/49-55-63	2953F/52-57-65	3028F/54-59-67
2	3537	2667F/40-48-58	2889F/49-55-64	2962F/52-57-65	3037F/55-60-67
0	3537	2676F/40-48-58	2898F/49-55-64	2971F/52-58-66	3047F/55-60-68
-2	3537	2685F/40-48-58	2907F/50-56-64	2981F/53-58-66	3057F/55-60-68
-4	3537	2694F/41-49-59	2916F/50-56-64	2991F/53-58-66	3067F/56-61-68
-6	3537	2703F/41-49-59	2926F/50-56-64	3000F/53-58-66	3077F/56-61-68
-8	3537	2713F/42-49-59	2935F/51-56-65	3010F/54-59-67	3088F/56-61-69
-10	3537	2722F/42-49-59	2944F/51-57-65	3020F/54-59-67	3098F/57-62-69

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2065 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A6) NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32R(A7) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2338F/37-41-47	2524F/45-47-52	2589F/48-50-54	2654F/49-50-54
					2620**51-53-57
58A	2647	2373F/38-42-48	2561F/46-48-53	2626F/49-51-55	2693F/50-51-55
					2669**52-54-58
56A	2714	2413F/38-43-49	2604F/47-50-54	2670F/50-52-56	2737F/52-53-57
					2725**53-54-58
54	2782	2454F/39-44-50	2648F/48-51-56	2714F/51-53-57	2783F/54-55-59
52	2858	2500F/40-45-52	2696F/49-52-57	2764F/52-54-59	2831F/54-56-61
50	2933	2545F/41-46-53	2744F/50-53-59	2812F/53-55-60	2877F/55-57-62
48	3011	2589F/42-48-55	2791F/51-54-60	2857F/53-56-62	2923F/56-58-63
46	3084	2631F/43-49-56	2832F/51-55-61	2899F/54-57-63	2966F/56-59-65
44	3155	2672F/44-50-57	2872F/52-56-62	2939F/54-58-64	3008F/57-60-66
42	3225	2714F/44-51-58	2912F/52-57-64	2980F/55-59-65	3050F/57-61-67
40	3294	2753F/45-52-60	2950F/53-58-65	3019F/55-60-66	3090F/58-62-68
38	3360	2786F/45-52-61	2986F/53-59-66	3055F/56-61-67	3126F/58-63-69
36	3432	2821F/45-53-62	3023F/53-60-67	3093F/56-62-68	3165F/59-64-70
34	3500	2851F/46-54-63	3055F/54-60-68	3126F/56-63-69	3199F/59-65-71
32	3526	2868F/46-54-63	3074F/54-61-68	3145F/57-63-70	3218F/59-65-72
30	3527	2876F/46-55-63	3083F/54-61-68	3154F/57-63-70	3228F/60-66-72
28	3528	2884F/47-55-63	3092F/55-61-69	3164F/57-64-70	3238F/60-66-72
26	3528	2892F/47-55-64	3101F/55-62-69	3173F/58-64-71	3248F/60-66-72
24	3529	2901F/47-55-64	3110F/55-62-69	3183F/58-64-71	3258F/61-66-73
22	3530	2909F/47-56-64	3119F/55-62-69	3193F/58-64-71	3268F/61-67-73
20	3531	2918F/48-56-64	3129F/56-63-70	3202F/59-65-71	3278F/61-67-73
18	3531	2926F/48-56-64	3138F/56-63-70	3212F/59-65-72	3289F/62-67-73
16	3532	2935F/48-56-65	3148F/56-63-70	3222F/59-65-72	3299F/62-68-74
14	3533	2943F/49-57-65	3157F/57-63-70	3232F/60-66-72	3310F/62-68-74
12	3534	2952F/49-57-65	3167F/57-64-70	3242F/60-66-72	3322F/63-68-74
10	3535	2961F/49-57-65	3177F/57-64-71	3252F/60-66-73	3333F/63-69-74
8	3535	2970F/49-58-66	3187F/58-64-71	3263F/61-67-73	3344F/63-69-75
6	3536	2979F/50-58-66	3197F/58-65-71	3273F/61-67-73	3355F/64-69-75
4	3536	2988F/50-58-66	3207F/58-65-71	3284F/61-67-73	3366F/64-69-75
2	3537	2997F/50-58-66	3217F/59-65-72	3295F/62-68-74	3377F/64-70-75
0	3537	3006F/51-59-67	3227F/59-66-72	3306F/62-68-74	3389F/65-70-76
-2	3537	3015F/51-59-67	3237F/59-66-72	3317F/62-68-74	3400F/65-70-76
-4	3537	3024F/51-59-67	3248F/60-66-72	3328F/63-68-74	3412F/65-71-76
-6	3537	3034F/52-60-67	3258F/60-66-73	3340F/63-69-74	3434F/65-71-76
-8	3537	3043F/52-60-67	3269F/60-67-73	3351F/63-69-75	3457F/66-71-76
-10	3537	3053F/52-60-68	3280F/61-67-73	3362F/64-69-75	3479F/66-71-76

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2574 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A7) NONE

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 32R(A8) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2492F/43-46-51	2681F/48-50-54	2745F/49-50-54	2810F/49-50-54
			2632**52-55-58	2660**55-59-61	2687**59-62-65
58A	2647	2529F/44-47-52	2720F/50-51-55	2786F/50-51-55	2849F/50-51-55
			2681**53-55-59	2710**56-59-62	2737**60-63-65
56A	2714	2572F/45-48-53	2766F/51-53-57	2830F/52-53-57	2894F/52-53-57
			2738**53-56-60	2768**57-60-63	2795**60-64-66
54	2782	2616F/46-50-55	2809F/53-55-59	2873F/54-55-59	2938F/54-55-59
			2795**54-57-61	2825**57-60-64	2853**61-64-67
52	2858	2664F/47-51-56	2855F/54-57-61	2921F/55-57-61	2987F/56-57-61
				2888**57-61-64	2917**61-64-67
50	2933	2712F/47-52-58	2901F/55-58-63	2967F/57-59-63	3034F/57-59-63
				2949**58-61-65	2978**61-65-68
48	3011	2754F/48-53-59	2946F/55-59-64	3013F/58-61-66	3081F/59-61-66
				3012**58-61-66	3042**61-65-69
46	3084	2793F/48-54-60	2988F/56-60-65	3056F/58-62-67	3125F/60-63-68
					3103**61-65-69
44	3155	2833F/49-55-61	3030F/56-61-66	3098F/59-63-68	3168F/61-65-69
					3161**61-66-70
42	3225	2872F/49-56-63	3071F/57-62-68	3141F/59-64-69	3212F/62-66-71
40	3294	2910F/49-57-64	3112F/57-63-69	3182F/60-65-70	3253F/62-67-72
38	3360	2945F/50-58-65	3149F/57-64-70	3219F/60-66-71	3293F/63-68-73
36	3432	2982F/50-58-66	3188F/58-65-71	3259F/60-67-73	3335F/63-69-74
34	3500	3013F/50-59-67	3221F/58-66-72	3295F/61-68-73	3372F/63-70-75
32	3526	3031F/50-60-67	3241F/58-66-72	3316F/61-68-74	3394F/64-70-76
30	3527	3039F/51-60-67	3250F/59-66-72	3326F/61-68-74	3405F/64-71-76
28	3528	3048F/51-60-68	3260F/59-67-73	3337F/62-69-74	3419F/64-71-76
26	3528	3057F/51-60-68	3270F/59-67-73	3347F/62-69-75	3439F/64-71-76
24	3529	3066F/52-61-68	3279F/60-67-73	3357F/62-69-75	3460F/64-71-76
22	3530	3075F/52-61-68	3290F/60-67-73	3368F/63-70-75	3481F/65-71-76
20	3531	3084F/52-61-68	3300F/60-68-74	3379F/63-70-75	3494F/65-71-76
18	3531	3092F/52-61-69	3311F/61-68-74	3389F/63-70-76	3505F/65-72-76
16	3532	3101F/53-62-69	3321F/61-68-74	3400F/64-70-76	3516F/66-72-77
14	3533	3111F/53-62-69	3332F/61-69-74	3411F/64-71-76	3527F/66-72-77
12	3534	3120F/53-62-69	3343F/62-69-75	3432F/64-71-76	3538F/66-72-77
					3536**66-73-77
10	3535	3129F/54-63-70	3353F/62-69-75	3453F/64-71-76	3549F/67-72-77
					3542**67-73-78
8	3535	3139F/54-63-70	3364F/62-69-75	3474F/64-71-76	3561F/67-72-77
					3548**67-74-78

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2887 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A8) NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R(A8) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

6	3536	3148F/54-63-70	3375F/63-70-75	3491F/64-71-76	3572F/67-72-77
					3553**68-74-78
4	3536	3157F/55-63-70	3386F/63-70-75	3502F/65-71-76	3583F/67-72-77
					3559**68-75-79
2	3537	3167F/55-64-70	3397F/63-70-76	3513F/65-72-76	3595F/67-72-77
					3565**69-75-79
0	3537	3177F/55-64-71	3408F/64-71-76	3524F/66-72-77	3606F/67-72-77
					3570**69-76-80
-2	3537	3186F/56-64-71	3427F/64-71-76	3536F/66-72-77	3618F/67-72-77
					3576**70-76-80
-4	3537	3196F/56-65-71	3448F/64-71-76	3547F/66-72-77	3630F/67-72-77
				3542**66-73-77	3581**70-77-81
-6	3537	3206F/56-65-71	3468F/64-71-76	3558F/66-72-77	3641F/67-72-77
				3548**67-73-78	3587**71-78-81
-8	3537	3216F/57-65-72	3488F/64-71-76	3570F/67-72-77	3653F/67-72-77
				3553**67-74-78	3592**71-78-82
-10	3537	3226F/57-65-72	3500F/64-71-76	3582F/67-72-77	3665F/67-72-77
				3559**68-75-79	3598**72-79-82

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2887 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A8) NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R(A9) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2803F/47-50-54	2988F/48-50-54	3052F/49-50-54	3117F/49-50-54
		2688**57-62-65	2750**67-73-74	2755**69-74-75	2755**69-74-75
58A	2647	2841F/49-51-55	3027F/50-51-55	3092F/50-51-55	3158F/50-51-55
		2736**57-63-65	2800**67-74-75	2813**70-76-77	2813**70-76-77
56A	2714	2883F/50-53-57	3072F/51-53-57	3138F/52-53-57	3205F/52-53-57
		2792**57-63-66	2859**67-74-75	2877**71-78-79	2879**72-78-79
54	2782	2927F/51-55-59	3119F/53-55-59	3185F/54-55-59	3253F/54-55-59
		2849**57-63-66	2919**68-74-76	2939**71-78-79	2950**74-80-81
52	2858	2975F/53-57-61	3170F/55-57-61	3237F/55-57-61	3307F/56-57-61
		2912**57-64-67	2988**68-75-76	3009**71-78-80	3028**75-82-83
50	2933	3022F/54-59-63	3219F/56-59-63	3288F/57-59-63	3360F/57-59-63
		2974**58-64-68	3053**68-75-77	3076**71-79-80	3097**75-82-84
48	3011	3068F/55-61-66	3268F/57-61-66	3340F/58-61-66	3417F/59-61-66
		3037**57-64-68	3119**68-75-78	3144**71-79-81	3166**75-83-84
46	3084	3112F/57-63-68	3315F/59-63-68	3390F/59-63-68	3500F/60-63-68
		3097**57-65-69	3183**68-75-78	3209**71-79-81	3233**75-83-85
44	3155	3155F/57-65-69	3363F/60-65-69	3462F/61-65-69	3548F/61-65-69
			3245**68-76-79	3272**71-79-82	3300**75-83-85
42	3225	3198F/58-66-71	3411F/61-67-71	3520F/62-67-71	3595F/63-67-71
			3306**68-76-79	3336**71-80-82	3364**75-84-86
40	3294	3239F/58-67-72	3492F/62-69-73	3565F/63-69-73	3641F/64-69-73
			3366**68-76-80	3397**71-80-83	3436**75-84-86
38	3360	3277F/58-68-73	3532F/63-70-75	3607F/64-70-75	3683F/65-70-75
			3429**68-77-80	3476**71-80-83	3510**75-84-86
36	3432	3319F/59-69-74	3575F/64-71-76	3651F/64-71-76	3728F/65-71-76
			3503**67-77-80	3535**71-80-83	3567**75-84-87
34	3500	3356F/59-69-75	3613F/64-72-76	3689F/64-72-76	3767F/65-72-76
			3553**67-77-81	3587**71-81-84	3620**75-84-87
32	3526	3377F/59-70-75	3635F/64-72-77	3711F/65-72-77	3787F/66-72-77
			3578**68-77-81	3612**71-81-84	3646**75-85-88
30	3527	3387F/59-70-75	3645F/64-72-77	3722F/65-72-77	3787F/66-72-77
			3583**68-78-82	3617**72-82-85	3651**75-85-88
28	3528	3397F/60-70-76	3656F/64-72-77	3733F/65-72-77	3787F/66-72-77
			3588**69-78-82	3623**72-82-85	3656**76-86-89
26	3528	3407F/60-71-76	3666F/64-72-77	3744F/65-72-77	3787F/66-72-77
			3594**69-79-83	3628**73-83-86	3661**76-86-89
24	3529	3422F/60-71-76	3677F/64-72-77	3755F/65-72-77	3787F/66-72-77
			3599**69-79-83	3633**73-83-86	3666**77-87-90
22	3530	3440F/60-71-76	3688F/64-72-77	3767F/65-72-77	3787F/66-72-77
			3605**70-80-83	3639**74-84-87	3672**77-88-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3634 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32R(A9) NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32R(A9) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3459F/60-71-76	3699F/64-72-77	3778F/65-72-77	3787F/66-72-77
			3610**70-81-84	3644**74-84-87	3677**78-88-91
18	3531	3478F/60-71-76	3710F/65-72-77	3787F/65-72-77	3787F/66-72-77
			3615**71-81-84	3650**75-85-88	3682**78-89-91
16	3532	3492F/61-71-76	3721F/65-72-77	3787F/66-72-77	3787F/66-72-77
			3620**71-82-85	3655**75-85-88	3688**79-89-92
14	3533	3502F/61-71-76	3732F/65-72-77	3787F/66-72-77	3787F/66-72-77
			3626**72-82-85	3660**76-86-89	3693**79-90-92
12	3534	3513F/61-72-76	3744F/65-72-77	3787F/66-72-77	3787F/66-72-77
			3632**72-83-86	3666**76-86-89	3699**80-90-93
10	3535	3523F/62-72-77	3755F/65-72-77	3787F/66-72-77	3787F/67-72-77
			3637**73-83-86	3671**77-87-90	3704**80-91-93
8	3535	3534F/62-72-77	3767F/65-72-77	3787F/66-72-77	3787F/67-72-77
			3643**73-84-87	3677**77-88-90	3709**81-92-94
6	3536	3544F/62-72-77	3779F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3540**62-73-77	3648**74-84-87	3682**78-88-91	3714**82-92-94
4	3536	3555F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3545**63-73-78	3654**74-85-88	3687**78-89-91	3719**82-93-95
2	3537	3565F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3551**63-74-78	3659**75-85-88	3693**79-89-92	3724**83-93-95
0	3537	3576F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3556**64-74-79	3664**75-86-89	3698**79-90-92	3730**83-94-96
-2	3537	3587F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3562**64-75-79	3670**76-87-89	3703**80-91-93	3735**84-95-96
-4	3537	3598F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3567**65-75-80	3675**76-87-90	3708**80-91-93	3740**84-95-97
-6	3537	3609F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3573**65-76-80	3680**77-88-90	3713**81-92-94	3744**85-96-97
-8	3537	3620F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3578**66-77-81	3685**77-88-91	3718**81-92-94	3749**85-97-98
-10	3537	3631F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3583**66-77-81	3691**78-89-91	3723**82-93-95	3753**86-97-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3634 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
32R(A9) NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32RA10 WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2915F/47-50-54	3102F/48-50-54	3167F/49-50-54	3233F/49-50-54
		2729**62-69-71	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2954F/49-51-55	3142F/50-51-55	3209F/50-51-55	3275F/50-51-55
		2778**62-69-71	2813**70-76-77	2813**70-76-77	2813**70-76-77
56A	2714	2997F/50-53-57	3189F/51-53-57	3255F/52-53-57	3326F/52-53-57
		2835**63-70-72	2879**71-78-79	2879**72-78-79	2879**72-78-79
54	2782	3042F/51-55-59	3236F/53-55-59	3305F/54-55-59	3378F/54-55-59
		2894**63-70-72	2950**73-80-81	2950**73-80-81	2950**74-80-81
52	2858	3091F/53-57-61	3289F/55-57-61	3361F/55-57-61	3455F/56-57-61
		2960**63-70-73	3025**73-81-83	3032**75-83-84	3032**76-83-84
50	2933	3139F/54-59-63	3342F/56-59-63	3418F/57-59-63	3524F/57-59-63
		3024**63-71-73	3093**73-82-83	3111**77-85-86	3111**77-85-86
48	3011	3187F/55-61-66	3395F/57-61-66	3503F/58-61-66	3576F/59-61-66
		3089**63-71-74	3162**73-82-84	3182**77-86-87	3191**79-87-89
46	3084	3232F/57-63-68	3475F/59-63-68	3552F/59-63-68	3626F/60-63-68
		3151**62-71-74	3228**73-82-84	3251**77-86-87	3271**80-90-91
44	3155	3277F/58-65-69	3528F/60-65-69	3601F/61-65-69	3675F/61-65-69
		3211**62-72-75	3294**73-82-84	3319**77-86-88	3342**80-90-91
42	3225	3324F/59-67-71	3576F/61-67-71	3649F/62-67-71	3724F/63-67-71
		3270**62-72-76	3358**73-83-85	3384**77-86-88	3409**80-90-92
40	3294	3369F/60-69-73	3621F/62-69-73	3696F/63-69-73	3771F/64-69-73
		3329**62-72-76	3426**73-83-85	3468**76-86-88	3500**80-90-91
38	3360	3410F/61-70-75	3663F/63-70-75	3739F/64-70-75	3787F/65-70-75
		3383**62-72-77	3503**72-83-85	3533**76-87-89	3560**80-90-92
36	3432	3487F/61-71-76	3707F/64-71-76	3784F/64-71-76	3787F/65-71-76
		3453**62-73-77	3560**72-83-86	3590**76-87-89	3619**80-91-93
34	3500	3524F/61-72-76	3746F/64-72-76	3787F/64-72-76	3787F/65-72-76
		3511**61-73-77	3613**72-84-86	3644**76-87-90	3674**80-91-93
32	3526	3533B/61-72-77	3769F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3533**61-73-77	3638**73-84-87	3670**76-88-90	3700**80-91-93
30	3527	3552B/61-72-77	3780F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3539**62-73-78	3643**73-85-87	3675**77-88-91	3705**81-92-94
28	3528	3564F/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3544**62-74-78	3648**74-85-88	3680**77-89-91	3710**81-93-94
26	3528	3574F/61-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3550**63-74-79	3653**74-86-88	3685**78-89-92	3715**82-93-95
24	3529	3585F/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3556**63-75-79	3658**74-86-89	3691**78-90-92	3720**82-94-95
22	3530	3595F/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3561**64-75-79	3664**75-87-89	3695**79-90-93	3725**83-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3954 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

32RA10 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 32RA10 WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3605F/62-72-77	3787F/64-72-77	3787F/65-72-77	3787F/66-72-77
		3567**64-76-80	3669**75-87-90	3700**79-91-93	3730**83-95-97
18	3531	3615F/62-72-77	3787F/65-72-77	3787F/65-72-77	3787F/66-72-77
		3572**65-76-80	3674**76-88-90	3705**80-92-94	3735**84-95-97
16	3532	3626F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3578**65-77-81	3679**76-88-91	3710**80-92-94	3740**84-96-98
14	3533	3636F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3583**65-77-81	3685**77-89-91	3716**81-93-95	3744**85-97-98
12	3534	3647F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/66-72-77
		3589**66-78-82	3690**77-89-92	3721**81-93-95	3750**85-97-99
10	3535	3658F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3594**66-79-82	3696**78-90-92	3726**82-94-96	3754**86-98-99
8	3535	3669F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3600**67-79-83	3701**78-91-93	3732**82-94-96	3759**86-98-00
6	3536	3680F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3605**67-80-83	3706**79-91-93	3737**83-95-97	3764**87-99-00
4	3536	3690F/62-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3611**68-80-84	3711**80-92-94	3742**83-96-97	3769**87-00-01
2	3537	3701F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3616**68-81-84	3716**80-92-94	3746**84-96-98	3774**88-00-02
0	3537	3712F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3621**69-81-84	3721**81-93-95	3751**85-97-98	3778**89-01-02
-2	3537	3724F/63-72-77	3787F/65-72-77	3787F/66-72-77	3787F/67-72-77
		3626**69-82-85	3726**81-94-95	3755**85-98-99	3781**89-01-03
-4	3537	3735F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3632**70-82-85	3731**82-94-96	3760**86-98-00	3781**89-01-03
-6	3537	3746F/63-72-77	3787F/66-72-77	3787F/66-72-77	3787F/67-72-77
		3637**70-83-86	3736**82-95-96	3764**86-99-00	3781**90-01-03
-8	3537	3758F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3642**71-83-86	3741**83-95-97	3769**87-00-01	3781**90-01-03
-10	3537	3769F/63-72-77	3787F/66-72-77	3787F/67-72-77	3787F/67-72-77
		3648**71-84-87	3746**83-96-98	3774**88-00-01	3781**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3954 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -0.11 PERCENT FOR TODA AND -0.11 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
32RA10 NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33 WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2669*/47-50-54	2747*/48-50-54	2772*/49-50-54	2796*/49-50-54
		2695**60-64-66	2755**68-74-75	2755**69-74-75	2755**69-74-75
58A	2647	2722*/49-51-55	2802*/50-51-55	2828*/50-51-55	2852*/51-51-55
		2746**61-64-67	2813**70-76-77	2813**70-76-77	2813**71-76-77
56A	2714	2781*/50-53-57	2865*/52-53-57	2892*/52-53-57	2918*/52-53-57
		2806**62-65-67	2876**72-77-79	2879**72-78-79	2879**72-78-79
54	2782	2841*/52-55-59	2930*/53-55-59	2958*/54-55-59	2985*/54-55-59
		2867**63-66-69	2940**73-78-80	2950**73-80-81	2950**74-80-81
52	2858	2906*/53-57-61	2999*/55-57-61	3029*/55-57-61	3056*/56-57-61
		2934**63-67-70	3012**73-79-80	3032**77-83-84	3032**76-83-84
50	2933	2970*/54-59-63	3066*/56-59-63	3096*/57-59-63	3126*/57-59-63
		2996**63-67-70	3078**73-79-81	3101**77-83-84	3111**77-85-86
48	3011	3034*/56-61-66	3134*/58-61-66	3166*/58-61-66	3197*/59-61-66
		3060**63-67-71	3146**74-79-81	3170**77-83-85	3191**81-87-88
46	3084	3094*/57-63-68	3198*/59-63-68	3231*/60-63-68	3264*/60-63-68
		3120**63-67-71	3211**74-79-82	3236**77-84-85	3259**81-88-89
44	3155	3155*/58-65-69	3260*/60-65-69	3296*/61-65-69	3331*/61-65-69
		3179**63-68-72	3274**74-80-82	3303**77-84-86	3330**81-88-89
42	3225	3225*/61-67-71	3323*/61-67-71	3361*/62-67-71	3398*/63-67-71
		3236**63-68-72	3337**74-80-83	3367**77-84-86	3395**81-88-90
40	3294	3291*/63-68-73	3385*/62-69-73	3435*/63-69-73	3492*/64-69-73
			3398**74-80-83	3441**77-84-86	3485**80-88-90
38	3360	3338*/63-69-74	3465*/63-70-75	3512*/64-70-75	3548*/65-70-75
			3478**73-80-83	3513**76-84-86	3544**80-88-90
36	3432	3387*/63-70-75	3528*/64-71-76	3566*/65-71-76	3604*/65-71-76
			3536**73-81-84	3570**77-85-87	3602**80-89-91
34	3500	3441*/63-71-76	3570*/64-72-76	3611*/65-72-76	3650*/65-72-76
			3588**73-81-84	3623**77-85-87	3657**80-89-91
32	3526	3477*/63-71-76	3595*/64-72-77	3636*/65-72-77	3676*/66-72-77
			3612**73-81-84	3649**77-85-88	3683**81-89-92
30	3527	3488*/63-71-76	3600*/64-72-77	3641*/65-72-77	3681*/66-72-77
			3618**74-82-85	3654**77-86-88	3688**81-90-92
28	3528	3495*/64-71-76	3605*/64-72-77	3646*/65-72-77	3686*/66-72-77
			3623**74-82-85	3659**78-86-89	3693**82-90-92
26	3528	3503*/64-71-76	3611*/64-72-77	3651*/65-72-77	3691*/66-72-77
			3628**75-83-86	3664**78-87-89	3698**82-91-93
24	3529	3511*/64-72-76	3616*/65-72-77	3656*/65-72-77	3696*/66-72-77
			3634**75-83-86	3669**79-87-90	3703**83-92-94
22	3530	3518*/65-72-77	3621*/65-72-77	3661*/65-72-77	3701*/66-72-77
			3639**76-84-87	3675**79-88-90	3708**83-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33

WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3526*/65-72-77	3626*/65-72-77	3666*/66-72-77	3706*/66-72-77
			3645**76-84-87	3680**80-88-91	3713**84-93-95
18	3531	3531*/65-72-77	3631*/65-72-77	3672*/66-72-77	3711*/66-72-77
		3533**66-72-77	3650**77-85-88	3685**80-89-91	3718**84-93-95
16	3532	3532*/65-72-77	3636*/65-72-77	3677*/66-72-77	3716*/67-72-77
		3538**66-73-77	3655**77-85-88	3691**81-90-92	3724**85-94-96
14	3533	3533*/64-72-77	3642*/65-72-77	3682*/66-72-77	3721*/67-72-77
		3544**67-73-78	3661**78-86-89	3696**81-90-92	3729**85-94-96
12	3534	3534*/64-72-77	3647*/65-72-77	3687*/66-72-77	3726*/67-72-77
		3550**67-74-78	3666**78-87-89	3702**82-91-93	3734**86-95-97
10	3535	3535*/63-72-77	3652*/65-72-77	3692*/66-72-77	3731*/67-72-77
		3556**67-74-79	3672**79-87-90	3707**82-91-93	3739**86-96-97
8	3535	3535*/63-72-77	3657*/65-72-77	3697*/66-72-77	3736*/67-72-77
		3562**68-75-79	3677**79-88-90	3712**83-92-94	3744**87-96-98
6	3536	3537*/63-72-77	3662*/65-72-77	3702*/66-72-77	3741*/67-72-77
		3567**68-76-80	3683**80-88-91	3717**83-93-94	3749**87-97-98
4	3536	3543*/63-72-77	3667*/65-72-77	3707*/66-72-77	3746*/67-72-77
		3573**69-76-80	3688**80-89-91	3722**84-93-95	3754**88-98-99
2	3537	3548*/63-72-77	3672*/66-72-77	3712*/66-72-77	3750*/67-72-77
		3578**69-77-81	3694**81-89-92	3728**85-94-96	3759**88-98-00
0	3537	3553*/63-72-77	3677*/66-72-77	3716*/66-72-77	3755*/67-72-77
		3583**70-77-81	3699**81-90-92	3733**85-94-96	3763**89-99-00
-2	3537	3558*/63-72-77	3681*/66-72-77	3721*/67-72-77	3759*/67-72-77
		3589**70-78-81	3704**82-91-93	3738**86-95-97	3768**90-99-01
-4	3537	3563*/63-72-77	3686*/66-72-77	3725*/67-72-77	3764*/67-72-77
		3594**71-78-82	3709**82-91-93	3743**86-96-97	3773**90-00-01
-6	3537	3568*/63-72-77	3691*/66-72-77	3730*/67-72-77	3768*/67-72-77
		3599**71-79-82	3714**83-92-94	3747**87-96-98	3777**91-01-02
-8	3537	3573*/63-72-77	3695*/66-72-77	3734*/67-72-77	3772*/68-72-77
		3605**72-79-83	3719**83-93-94	3752**87-97-98	3781**91-01-03
-10	3537	3578*/63-72-77	3700*/66-72-77	3739*/67-72-77	3776*/68-72-77
		3611**72-80-83	3724**84-93-95	3757**88-98-99	3781**91-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3960 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y6) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2050F/25-30-38	2228F/34-37-44	2291F/37-39-45	2354F/40-42-47
58A	2647	2080F/25-31-39	2261F/34-38-45	2324F/37-40-46	2389F/40-42-48
56A	2714	2115F/26-32-40	2298F/35-39-46	2363F/38-41-48	2428F/41-43-50
54	2782	2151F/27-33-42	2337F/36-40-47	2402F/39-42-49	2468F/42-45-51
52	2858	2191F/27-34-43	2379F/37-41-48	2445F/40-43-50	2513F/43-46-52
50	2933	2230F/28-35-44	2422F/38-42-50	2488F/41-44-52	2557F/44-47-54
48	3011	2269F/29-36-46	2464F/38-43-51	2531F/42-46-53	2600F/45-48-55
46	3084	2305F/30-37-47	2503F/39-44-52	2571F/42-47-54	2641F/45-49-56
44	3155	2342F/30-38-48	2541F/40-45-54	2610F/43-48-56	2681F/46-50-57
42	3225	2379F/31-39-49	2581F/41-46-55	2651F/44-49-57	2722F/47-51-59
40	3294	2414F/32-40-51	2618F/41-47-56	2690F/45-49-58	2762F/48-52-60
38	3360	2447F/32-41-52	2653F/42-48-57	2725F/45-50-59	2798F/49-53-61
36	3432	2482F/33-42-53	2690F/43-49-58	2763F/46-51-60	2835F/49-54-62
34	3500	2511F/33-42-54	2722F/43-50-59	2795F/47-52-61	2865F/49-54-63
32	3526	2527F/34-43-54	2740F/44-50-60	2813F/47-53-62	2883F/50-55-63
30	3527	2535F/34-43-54	2749F/44-50-60	2821F/47-53-62	2892F/50-55-64
28	3528	2543F/34-43-55	2757F/45-51-60	2830F/48-53-62	2900F/50-55-64
26	3528	2551F/35-44-55	2766F/45-51-60	2838F/48-53-62	2909F/51-56-64
24	3529	2559F/35-44-55	2775F/45-51-61	2847F/48-54-62	2918F/51-56-64
22	3530	2567F/36-44-55	2784F/46-52-61	2856F/49-54-63	2927F/51-56-65
20	3531	2575F/36-44-55	2793F/46-52-61	2865F/49-54-63	2936F/52-56-65
18	3531	2583F/36-45-56	2803F/46-52-61	2873F/49-54-63	2945F/52-57-65
16	3532	2591F/37-45-56	2811F/47-52-62	2882F/49-55-63	2954F/52-57-65
14	3533	2600F/37-45-56	2820F/47-53-62	2891F/50-55-64	2964F/52-57-65
12	3534	2608F/37-46-56	2829F/47-53-62	2900F/50-55-64	2973F/53-58-66
10	3535	2617F/38-46-56	2837F/48-53-62	2909F/50-56-64	2983F/53-58-66
8	3535	2625F/38-46-57	2846F/48-54-62	2918F/51-56-64	2992F/53-58-66
6	3536	2634F/38-46-57	2855F/48-54-63	2928F/51-56-65	3002F/54-59-66
4	3536	2643F/39-47-57	2864F/49-54-63	2937F/51-56-65	3011F/54-59-67
2	3537	2652F/39-47-57	2873F/49-54-63	2946F/52-57-65	3021F/54-59-67
0	3537	2660F/40-47-58	2882F/49-55-63	2956F/52-57-65	3031F/55-59-67
-2	3537	2669F/40-48-58	2891F/49-55-64	2965F/52-57-65	3041F/55-60-67
-4	3537	2678F/40-48-58	2900F/50-55-64	2975F/53-58-66	3051F/55-60-68
-6	3537	2687F/41-48-58	2910F/50-56-64	2984F/53-58-66	3061F/56-60-68
-8	3537	2696F/41-49-59	2919F/50-56-64	2994F/53-58-66	3071F/56-61-68
-10	3537	2705F/41-49-59	2929F/51-56-65	3004F/54-59-66	3081F/56-61-68

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2050 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y6)	34	442	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 33(Y7) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF SEPANG INTL
KUALA LUMPUR
777-200LR GE90-110B1L DATED 08-FEB-2017

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

60A	2590	2295F/35-39-45	2461*/44-45-50	2510*/47-47-52	2552*/48-48-53
58A	2647	2329F/36-40-47	2502*/45-46-51	2554*/48-48-53	2598*/50-50-54
56A	2714	2369F/37-41-48	2548*/46-48-53	2602*/49-49-54	2651*/51-51-56
54	2782	2409F/38-42-49	2596*/46-49-54	2652*/49-51-56	2706*/53-53-57
52	2858	2454F/39-44-51	2648*/47-50-56	2706*/50-52-57	2762*/53-54-59
50	2933	2498F/39-45-52	2696F/48-51-57	2759*/51-54-59	2816*/54-55-60
48	3011	2542F/40-46-53	2742F/49-53-59	2811F/52-55-60	2868*/55-57-62
46	3084	2583F/41-47-55	2786F/50-54-60	2852F/53-56-62	2916*/55-58-63
44	3155	2624F/42-48-56	2827F/51-55-61	2893F/53-57-63	2961F/56-59-65
42	3225	2665F/43-49-57	2867F/51-56-62	2935F/54-58-64	3004F/56-60-66
40	3294	2705F/43-50-58	2905F/52-57-64	2973F/54-59-65	3043F/57-61-67
38	3360	2742F/44-51-59	2940F/52-57-65	3009F/55-60-66	3079F/57-62-68
36	3432	2777F/44-52-60	2977F/52-58-66	3047F/55-60-67	3118F/58-63-69
34	3500	2806F/45-52-61	3009F/53-59-66	3079F/55-61-68	3151F/58-63-70
32	3526	2823F/45-53-62	3027F/53-59-67	3098F/56-62-69	3170F/58-64-71
30	3527	2831F/45-53-62	3036F/53-60-67	3107F/56-62-69	3180F/59-64-71
28	3528	2839F/45-53-62	3045F/53-60-67	3116F/56-62-69	3189F/59-64-71
26	3528	2847F/46-54-62	3054F/54-60-68	3125F/57-62-69	3199F/59-65-71
24	3529	2855F/46-54-63	3063F/54-60-68	3135F/57-63-70	3209F/60-65-71
22	3530	2863F/46-54-63	3072F/54-61-68	3144F/57-63-70	3219F/60-65-72
20	3531	2872F/47-54-63	3081F/55-61-68	3154F/57-63-70	3229F/60-66-72
18	3531	2880F/47-55-63	3090F/55-61-69	3163F/58-64-70	3239F/61-66-72
16	3532	2888F/47-55-64	3100F/55-62-69	3173F/58-64-71	3249F/61-66-72
14	3533	2897F/47-55-64	3109F/56-62-69	3183F/58-64-71	3259F/61-67-73
12	3534	2905F/48-55-64	3119F/56-62-69	3193F/59-65-71	3270F/62-67-73
10	3535	2914F/48-56-64	3128F/56-63-70	3203F/59-65-71	3280F/62-67-73
8	3535	2923F/48-56-64	3138F/57-63-70	3213F/59-65-72	3291F/62-67-73
6	3536	2932F/49-56-65	3148F/57-63-70	3224F/60-65-72	3302F/63-68-74
4	3536	2940F/49-57-65	3158F/57-63-70	3234F/60-66-72	3313F/63-68-74
2	3537	2949F/49-57-65	3168F/58-64-70	3244F/60-66-72	3323*/63-68-74
0	3537	2958F/50-57-65	3178F/58-64-71	3255F/61-66-73	3332*/64-69-74
-2	3537	2967F/50-57-66	3188F/58-64-71	3265F/61-67-73	3341*/64-69-75
-4	3537	2976F/50-58-66	3198F/59-65-71	3276F/61-67-73	3350*/64-69-75
-6	3537	2986F/51-58-66	3208F/59-65-71	3287F/62-67-73	3360*/65-69-75
-8	3537	2995F/51-58-66	3219F/59-65-72	3297*/62-68-74	3369*/65-70-75
-10	3537	3004F/51-59-66	3229F/60-66-72	3306*/63-68-74	3378*/66-70-75

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 2500 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y7)	34	442	0						

ENG-OUT PROCEDURE:

NONE

INTENTIONALLY LEFT BLANK

ELEVATION 70 FT

RUNWAY 33(Y8) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2636*/47-50-54	2718*/48-50-54	2745*/49-50-54	2771*/49-50-54
		2657**55-58-61	2736**66-70-72	2755**69-74-75	2755**69-74-75
58A	2647	2687*/49-51-55	2771*/50-51-55	2799*/50-51-55	2825*/51-51-55
		2708**56-59-62	2788**66-71-73	2808**70-75-76	2813**71-76-77
56A	2714	2746*/50-53-57	2834*/52-53-57	2862*/52-53-57	2889*/52-53-57
		2766**57-60-63	2847**67-72-74	2869**71-76-77	2879**72-78-79
54	2782	2803*/52-55-59	2897*/53-55-59	2926*/54-55-59	2955*/54-55-59
		2826**58-60-64	2911**68-73-75	2933**72-77-78	2950**74-80-81
52	2858	2867*/53-57-61	2965*/55-57-61	2996*/55-57-61	3025*/56-57-61
		2893**59-61-65	2982**69-74-76	3006**73-78-79	3027**76-82-83
50	2933	2933*/55-59-63	3030*/56-59-63	3062*/57-59-63	3093*/57-59-63
		2956**60-62-66	3047**70-74-76	3073**73-78-80	3096**77-82-83
48	3011	3011*/58-61-66	3096*/58-61-66	3129*/58-61-66	3162*/59-61-66
		3018**60-62-66	3113**70-74-77	3140**73-78-80	3164**77-82-84
46	3084	3074*/60-63-67	3158*/59-63-68	3193*/60-63-68	3227*/60-63-68
			3175**70-75-77	3204**73-79-81	3231**77-83-84
44	3155	3124*/60-64-69	3219*/60-65-69	3255*/61-65-69	3291*/61-65-69
			3237**70-75-78	3268**73-79-81	3297**77-83-85
42	3225	3173*/60-65-70	3279*/61-67-71	3318*/62-67-71	3356*/63-67-71
			3297**70-75-78	3330**73-79-82	3361**77-83-85
40	3294	3221*/60-66-71	3339*/62-69-73	3380*/63-69-73	3426*/64-69-73
			3357**70-75-79	3391**73-79-82	3431**77-83-86
38	3360	3263*/61-67-72	3394*/63-70-75	3456*/64-70-75	3507*/65-70-75
			3414**70-76-79	3468**73-79-82	3507**76-83-86
36	3432	3310*/61-68-74	3479*/64-71-76	3522*/65-71-76	3562*/65-71-76
			3493**69-76-79	3529**73-80-83	3564**77-84-86
34	3500	3351*/61-69-75	3523*/64-72-76	3565*/65-72-76	3606*/65-72-76
			3543**70-76-80	3581**73-80-83	3617**77-84-87
32	3526	3373*/61-70-75	3547*/64-72-77	3589*/65-72-77	3631*/66-72-77
			3567**70-76-80	3605**73-80-84	3642**77-84-87
30	3527	3381*/61-70-75	3552*/64-72-77	3594*/65-72-77	3636*/66-72-77
			3573**70-77-81	3611**74-81-84	3647**77-85-88
28	3528	3389*/62-70-76	3558*/64-72-77	3600*/65-72-77	3641*/66-72-77
			3578**71-77-81	3616**74-81-85	3652**78-86-88
26	3528	3398*/62-70-76	3563*/64-72-77	3605*/65-72-77	3646*/66-72-77
			3583**71-78-82	3621**75-82-85	3658**78-86-89
24	3529	3406*/62-71-76	3568*/65-72-77	3610*/65-72-77	3651*/66-72-77
			3589**72-78-82	3627**75-82-86	3663**79-87-89
22	3530	3416*/63-71-76	3574*/65-72-77	3616*/65-72-77	3657*/66-72-77
			3594**72-79-82	3632**76-83-86	3668**79-87-90

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3728 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

33(Y8) 34 442 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y8) WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3531	3430*/63-71-76	3579*/65-72-77	3621*/66-72-77	3662*/66-72-77
			3600**73-79-83	3637**76-84-87	3673**80-88-90
18	3531	3443*/63-71-76	3584*/65-72-77	3626*/66-72-77	3667*/66-72-77
			3605**73-80-83	3643**77-84-87	3679**80-88-91
16	3532	3456*/63-71-76	3590*/65-72-77	3631*/66-72-77	3672*/67-72-77
			3611**73-80-84	3649**77-85-87	3684**81-89-91
14	3533	3469*/64-71-76	3595*/65-72-77	3637*/66-72-77	3677*/67-72-77
			3616**74-81-84	3654**78-85-88	3690**81-89-92
12	3534	3482*/64-71-76	3601*/65-72-77	3642*/66-72-77	3683*/67-72-77
			3622**74-82-85	3660**78-86-88	3696**82-90-92
10	3535	3491*/64-71-76	3606*/65-72-77	3647*/66-72-77	3688*/67-72-77
			3628**75-82-85	3665**79-86-89	3701**82-91-93
8	3535	3499*/65-71-76	3611*/65-72-77	3653*/66-72-77	3693*/67-72-77
			3633**75-83-86	3671**79-87-89	3706**83-91-93
6	3536	3507*/65-72-76	3616*/65-72-77	3658*/66-72-77	3698*/67-72-77
			3639**76-83-86	3676**80-88-90	3711**83-92-94
4	3536	3515*/66-72-76	3621*/65-72-77	3663*/66-72-77	3703*/67-72-77
			3644**76-84-87	3682**80-88-91	3717**84-92-94
2	3537	3523*/66-72-77	3627*/66-72-77	3668*/66-72-77	3708*/67-72-77
			3650**77-84-87	3687**81-89-91	3722**85-93-95
0	3537	3530*/66-72-77	3631*/66-72-77	3673*/66-72-77	3713*/67-72-77
			3655**77-85-88	3692**81-89-92	3727**85-94-95
-2	3537	3537*/67-72-77	3636*/66-72-77	3677*/67-72-77	3718*/67-72-77
			3661**78-86-88	3698**82-90-92	3732**86-94-96
-4	3537	3537*/66-72-77	3641*/66-72-77	3682*/67-72-77	3722*/67-72-77
		3543**67-73-78	3666**79-86-89	3703**82-91-93	3737**86-95-97
-6	3537	3537*/66-72-77	3646*/66-72-77	3687*/67-72-77	3727*/67-72-77
		3549**68-74-78	3671**79-87-89	3708**83-91-93	3742**87-96-97
-8	3537	3537*/65-72-77	3651*/66-72-77	3692*/67-72-77	3732*/68-72-77
		3555**68-74-78	3676**80-87-90	3713**83-92-94	3747**87-96-98
-10	3537	3537*/65-72-77	3656*/66-72-77	3696*/67-72-77	3736*/68-72-77
		3560**69-75-79	3682**80-88-90	3718**84-92-94	3751**88-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3728 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y8)	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y9) WMKK

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

SEPANG INTL

KUALA LUMPUR

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2590	2654*/47-50-54	2734*/48-50-54	2760*/49-50-54	2784*/49-50-54
		2678**58-61-63	2750**68-73-74	2755**69-74-75	2755**69-74-75
58A	2647	2705*/49-51-55	2788*/50-51-55	2814*/50-51-55	2840*/51-51-55
		2729**58-62-64	2802**69-74-75	2813**70-76-77	2813**71-76-77
56A	2714	2765*/50-53-57	2850*/52-53-57	2878*/52-53-57	2905*/52-53-57
		2787**59-62-65	2863**70-75-76	2879**72-78-79	2879**72-78-79
54	2782	2823*/52-55-59	2915*/53-55-59	2943*/54-55-59	2971*/54-55-59
		2848**60-63-66	2927**71-76-77	2948**74-80-81	2950**74-80-81
52	2858	2888*/53-57-61	2983*/55-57-61	3013*/55-57-61	3042*/56-57-61
		2916**62-64-67	2998**72-76-78	3020**75-80-82	3032**76-83-84
50	2933	2951*/54-59-63	3049*/56-59-63	3080*/57-59-63	3111*/57-59-63
		2977**62-65-68	3064**72-77-79	3088**75-81-82	3109**79-85-86
48	3011	3014*/56-61-66	3116*/58-61-66	3149*/58-61-66	3181*/59-61-66
		3041**62-65-69	3130**72-77-79	3156**75-81-83	3178**79-85-86
46	3084	3084*/58-63-68	3179*/59-63-68	3213*/60-63-68	3247*/60-63-68
		3100**62-65-69	3194**72-77-80	3222**75-81-83	3247**79-85-87
44	3155	3155*/61-65-69	3241*/60-65-69	3276*/61-65-69	3313*/61-65-69
		3158**62-65-70	3257**72-77-80	3286**75-81-84	3314**79-85-87
42	3225	3209*/62-66-71	3302*/61-67-71	3341*/62-67-71	3378*/63-67-71
			3318**72-78-81	3350**75-82-84	3379**79-86-88
40	3294	3257*/62-67-72	3364*/62-69-73	3403*/63-69-73	3465*/64-69-73
			3379**72-78-81	3413**75-82-85	3461**78-86-88
38	3360	3302*/62-68-73	3426*/63-70-75	3491*/64-70-75	3529*/65-70-75
			3448**72-78-81	3495**75-82-84	3527**78-86-88
36	3432	3350*/62-69-75	3506*/64-71-76	3545*/65-71-76	3584*/65-71-76
			3516**71-78-82	3551**75-82-85	3584**78-86-89
34	3500	3392*/62-70-76	3548*/64-72-76	3589*/65-72-76	3629*/65-72-76
			3567**71-78-82	3603**75-83-85	3638**79-87-89
32	3526	3417*/62-71-76	3572*/64-72-77	3614*/65-72-77	3654*/66-72-77
			3591**72-79-82	3628**75-83-86	3663**79-87-89
30	3527	3431*/63-71-76	3578*/64-72-77	3619*/65-72-77	3660*/66-72-77
			3597**72-79-83	3633**76-83-86	3669**79-88-90
28	3528	3443*/63-71-76	3583*/64-72-77	3624*/65-72-77	3665*/66-72-77
			3602**72-80-83	3639**76-84-87	3674**80-88-90
26	3528	3456*/63-71-76	3588*/64-72-77	3629*/65-72-77	3670*/66-72-77
			3607**73-80-84	3644**77-85-87	3679**80-89-91
24	3529	3469*/63-71-76	3593*/65-72-77	3635*/65-72-77	3675*/66-72-77
			3613**73-81-84	3650**77-85-88	3685**81-89-91
22	3530	3481*/64-71-76	3599*/65-72-77	3640*/65-72-77	3680*/66-72-77
			3618**74-81-85	3655**78-86-88	3690**81-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3848 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y9)	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 70 FT

RUNWAY 33(Y9) WMKK

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

SEPANG INTL
KUALA LUMPUR
DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)
C 100KG -10 0 10 20

20	3531	3491*/64-71-76	3604*/65-72-77	3645*/66-72-77	3685*/66-72-77
			3623**74-82-85	3660**78-86-89	3695**82-90-92
18	3531	3499*/64-71-76	3609*/65-72-77	3650*/66-72-77	3690*/66-72-77
			3629**75-83-86	3665**79-87-89	3700**82-91-93
16	3532	3506*/65-72-76	3614*/65-72-77	3655*/66-72-77	3695*/67-72-77
			3634**75-83-86	3671**79-87-90	3705**83-91-93
14	3533	3514*/65-72-76	3620*/65-72-77	3660*/66-72-77	3701*/67-72-77
			3640**76-84-87	3676**80-88-90	3710**83-92-94
12	3534	3522*/65-72-77	3625*/65-72-77	3666*/66-72-77	3706*/67-72-77
			3646**76-84-87	3682**80-88-91	3716**84-93-95
10	3535	3530*/66-72-77	3630*/65-72-77	3671*/66-72-77	3711*/67-72-77
			3651**77-85-88	3687**81-89-91	3721**84-93-95
8	3535	3535*/66-72-77	3636*/65-72-77	3676*/66-72-77	3716*/67-72-77
		3537**66-73-77	3657**77-85-88	3693**81-90-92	3727**85-94-96
6	3536	3536*/65-72-77	3641*/65-72-77	3681*/66-72-77	3721*/67-72-77
		3543**67-73-78	3662**78-86-89	3699**82-90-92	3732**85-94-96
4	3536	3536*/65-72-77	3646*/65-72-77	3686*/66-72-77	3726*/67-72-77
		3548**67-74-78	3668**78-86-89	3704**82-91-93	3737**86-95-97
2	3537	3537*/64-72-77	3651*/66-72-77	3691*/66-72-77	3731*/67-72-77
		3554**68-74-78	3673**79-87-90	3709**83-91-93	3742**87-96-97
0	3537	3537*/64-72-77	3655*/66-72-77	3696*/66-72-77	3735*/67-72-77
		3560**68-75-79	3678**79-88-90	3714**83-92-94	3747**87-96-98
-2	3537	3537*/63-72-77	3660*/66-72-77	3700*/67-72-77	3740*/67-72-77
		3565**69-75-79	3683**80-88-91	3719**84-93-95	3751**88-97-98
-4	3537	3539*/63-72-77	3665*/66-72-77	3705*/67-72-77	3744*/67-72-77
		3571**69-76-80	3689**81-89-91	3724**84-93-95	3756**88-98-99
-6	3537	3544*/63-72-77	3670*/66-72-77	3710*/67-72-77	3749*/67-72-77
		3576**70-76-80	3694**81-89-92	3729**85-94-96	3761**89-98-00
-8	3537	3549*/63-72-77	3674*/66-72-77	3714*/67-72-77	3753*/68-72-77
		3581**70-77-81	3700**82-90-92	3734**86-95-96	3765**90-99-00
-10	3537	3554*/63-72-77	3679*/66-72-77	3719*/67-72-77	3758*/68-72-77
		3587**71-77-81	3705**82-91-93	3739**86-95-97	3770**90-00-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FTLIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3848 M LONG WITH 0 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 0.00 PERCENT FOR TODA AND 0.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
33(Y9)	34	442	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 01

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2586	2539*/48-48-52	2606*/50-50-54	2627*/50-50-54	2647*/50-50-54
		2589**60-65-67	2675**65-70-72	2704**67-73-74	2732**69-74-75
58A	2643	2592*/49-49-54	2661*/51-51-55	2682*/51-51-55	2703*/51-51-55
		2639**61-66-68	2727**65-70-71	2755**68-73-74	2784**70-75-76
56A	2709	2653*/51-51-56	2725*/53-53-57	2747*/53-53-57	2768*/53-53-57
		2697**61-66-68	2786**67-71-73	2815**68-73-75	2844**71-76-77
54	2777	2715*/53-53-57	2790*/55-55-59	2812*/55-55-59	2833*/55-55-59
		2756**63-68-70	2848**68-73-75	2878**70-74-76	2908**72-77-78
52	2853	2785*/55-55-59	2862*/57-57-61	2885*/57-57-61	2907*/57-57-61
		2824**64-69-71	2918**70-75-77	2950**72-76-78	2980**73-78-79
50	2927	2854*/57-57-61	2931*/58-59-63	2956*/59-59-63	2979*/59-59-63
		2888**64-68-71	2987**72-77-79	3019**74-79-80	3050**75-80-81
48	3005	2925*/59-59-63	3005*/60-61-65	3031*/61-61-65	3054*/61-61-65
		2954**64-68-71	3056**72-77-79	3089**75-79-81	3122**77-82-83
46	3079	2991*/60-60-65	3075*/63-63-67	3098*/62-63-67	3124*/63-63-67
		3014**64-67-71	3123**73-78-80	3157**76-81-83	3191**79-84-85
44	3150	3056*/62-62-67	3142*/65-65-69	3166*/64-65-69	3193*/65-65-69
		3072**64-66-71	3188**74-78-80	3224**77-81-83	3259**80-85-87
42	3220	3119*/64-64-69	3208*/66-66-71	3233*/66-67-71	3261*/67-67-71
		3128**64-66-71	3249**74-77-80	3287**77-81-83	3326**80-84-86
40	3289	3181*/64-65-70	3271*/68-68-73	3298*/67-68-73	3325*/67-68-73
		3183**64-67-72	3308**74-77-80	3350**77-80-83	3390**80-84-87
38	3354	3232*/64-66-72	3333*/69-69-74	3361*/69-70-74	3388*/69-70-74
		3233**64-69-74	3365**74-76-80	3408**77-80-83	3473**80-83-86
36	3425	3285*/64-68-73	3396*/71-71-75	3431*/70-71-76	3469*/70-71-76
			3427**73-77-80	3490**76-80-83	3534**80-83-86
34	3494	3335*/64-69-74	3467*/71-71-76	3499*/70-71-76	3527*/70-71-76
			3496**73-77-81	3541**76-80-83	3587**80-83-86
32	3524	3361*/64-69-75	3499*/71-71-76	3528*/71-72-77	3556*/71-72-77
			3523**73-78-81	3568**77-80-84	3614**80-84-87
30	3524	3365*/64-70-75	3502*/71-71-76	3530*/71-72-77	3558*/71-72-77
			3528**74-77-81	3573**77-81-84	3620**80-84-87
28	3525	3370*/65-70-75	3504*/72-72-76	3533*/71-72-77	3561*/71-72-77
			3533**74-78-82	3579**78-81-85	3625**81-84-87
26	3526	3375*/65-70-75	3507*/72-72-76	3535*/71-72-77	3564*/71-72-77
			3538**75-78-82	3584**78-82-85	3630**81-85-88
24	3527	3380*/66-70-75	3510*/72-72-76	3538*/71-72-77	3566*/71-72-77
			3543**75-79-83	3589**79-82-85	3635**82-85-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 500 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01	163	2378	0	184	4025	0	189	4712	0
	208	5625	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RUNWAY 01 BASED ON A 15 DEGREE BANKED CLIMBING RIGHT

TURN, COMMENCED AT D8.9 PEK VOR/DME TO A MAG COURSE OF 126 DEGREES

ELEVATION 115 FT

RUNWAY 01

ZBAA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3527	3385*/66-70-75	3513*/72-72-76	3541*/71-72-77	3571*/72-72-77
			3548**76-80-83	3595**79-83-86	3641**82-86-89
20	3528	3389*/67-70-76	3515*/72-72-76	3543*/71-72-77	3574*/72-72-77
		3391**67-72-77	3553**76-80-84	3600**79-83-86	3646**83-87-89
18	3529	3394*/67-70-76	3518*/72-72-77	3546*/71-72-77	3576*/72-72-77
		3396**67-73-78	3559**77-81-84	3606**80-84-86	3651**83-87-90
16	3529	3398*/68-70-76	3521*/72-72-77	3548*/71-72-77	3578*/72-72-77
		3401**67-73-78	3564**77-81-85	3611**80-84-87	3657**84-88-90
14	3530	3403*/68-71-76	3524*/72-72-77	3551*/71-72-77	3581*/72-72-77
		3406**68-73-78	3569**78-82-85	3616**81-85-87	3662**84-89-91
12	3531	3408*/68-71-76	3526*/72-72-77	3553*/71-72-77	3583*/72-72-77
		3411**68-73-78	3575**78-82-86	3622**82-85-88	3668**85-89-91
10	3532	3413*/69-71-76	3529*/72-72-77	3558*/72-72-77	3586*/72-72-77
		3419**69-74-79	3581**79-83-86	3627**82-86-89	3673**86-90-92
8	3532	3419*/69-71-76	3532*/72-72-77	3561*/72-72-77	3588*/72-72-77
		3427**69-74-79	3586**79-83-86	3633**83-86-89	3678**86-90-93
6	3533	3425*/70-71-76	3533*/72-72-77	3563*/72-72-77	3591*/72-72-77
		3435**70-74-79	3592**80-83-86	3638**83-87-90	3684**87-91-93
4	3533	3429*/70-71-76	3534*/71-72-77	3565*/72-72-77	3593*/72-72-77
		3442**70-75-79	3597**80-84-87	3643**84-88-90	3689**87-92-94
2	3534	3432*/71-71-76	3537*/71-72-77	3567*/72-72-77	3595*/72-72-77
		3449**70-75-80	3602**81-84-87	3649**84-88-91	3694**88-92-94
0	3534	3435*/71-71-76	3539*/71-72-77	3569*/72-72-77	3597*/72-72-77
		3456**71-76-80	3607**81-85-88	3654**85-89-91	3699**88-93-95
-2	3534	3438*/71-71-76	3543*/72-72-77	3571*/72-72-77	3598*/72-72-77
		3463**71-76-80	3612**82-86-88	3659**85-90-92	3704**89-94-96
-4	3534	3441*/71-71-76	3545*/72-72-77	3573*/72-72-77	3600*/72-72-77
		3470**72-77-81	3617**82-86-89	3664**86-90-93	3709**89-95-96
-6	3534	3444*/71-71-76	3546*/72-72-77	3575*/72-72-77	3602*/72-72-77
		3477**72-77-81	3623**83-87-90	3669**86-91-93	3713**90-95-97
-8	3534	3447*/71-71-76	3548*/72-72-77	3576*/72-72-77	3604*/72-72-77
		3484**73-78-82	3628**83-88-90	3674**87-92-94	3718**91-96-98
-10	3534	3450*/71-71-76	3550*/72-72-77	3578*/72-72-77	3606*/72-72-77
		3490**73-78-82	3633**84-88-91	3679**88-93-94	3722**91-97-98

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 500 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
01	163	2378	0	184	4025	0	189	4712	0
	208	5625	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RUNWAY 01 BASED ON A 15 DEGREE BANKED CLIMBING RIGHT

TURN, COMMENCED AT D8.9 PEK VOR/DME TO A MAG COURSE OF 126 DEGREES

ELEVATION 115 FT

RUNWAY 18L

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2586	2712*/47-50-54	2779*/48-50-54	2799*/48-50-54	2820*/49-50-54
		2721**60-68-70	2751**68-74-75	2751**69-74-75	2751**69-74-75
58A	2643	2767*/49-51-55	2835*/50-51-55	2857*/50-51-55	2877*/50-51-55
		2770**61-69-70	2808**69-76-77	2808**70-76-77	2808**70-76-77
56A	2709	2830*/50-53-57	2902*/51-53-57	2924*/52-53-57	2945*/52-53-57
		2828**61-69-71	2874**71-78-79	2874**71-78-79	2874**72-78-79
54	2777	2892*/51-55-59	2969*/53-55-59	2991*/53-55-59	3013*/54-55-59
		2886**61-69-72	2945**71-80-81	2945**73-80-81	2945**74-80-81
52	2853	2962*/53-57-61	3041*/55-57-61	3065*/55-57-61	3088*/56-57-61
		2952**61-70-72	3016**71-81-82	3026**75-83-84	3026**75-83-84
50	2927	3028*/54-59-63	3111*/56-59-63	3137*/57-59-63	3161*/57-59-63
		3015**61-70-73	3085**71-81-82	3104**75-85-86	3105**77-85-86
48	3005	3097*/55-61-65	3184*/57-61-65	3210*/58-61-65	3236*/59-61-65
		3080**61-70-73	3153**71-81-83	3173**75-85-86	3185**79-87-88
46	3079	3161*/57-63-67	3252*/59-63-67	3280*/59-63-67	3309*/60-63-67
		3142**61-71-74	3219**71-82-83	3242**75-85-87	3262**79-89-90
44	3150	3224*/58-65-69	3321*/60-65-69	3352*/61-65-69	3381*/61-65-69
		3202**61-71-75	3285**71-82-84	3310**75-85-87	3333**78-89-91
42	3220	3285*/59-67-71	3388*/61-67-71	3426*/62-67-71	3471*/62-67-71
		3261**60-71-75	3348**71-82-84	3375**75-86-88	3399**78-90-91
40	3289	3347*/60-68-73	3478*/62-68-73	3512*/63-68-73	3542*/64-68-73
		3320**60-72-76	3411**71-82-85	3454**74-86-88	3491**78-89-91
38	3354	3398F/61-70-74	3539*/63-70-74	3571*/64-70-74	3602*/65-70-74
		3374**60-72-76	3494**70-82-85	3523**74-86-88	3551**78-90-91
36	3425	3466F/60-71-76	3597*/64-71-76	3631*/65-71-76	3663*/65-71-76
		3440**60-72-77	3551**71-83-85	3581**74-86-89	3609**78-90-92
34	3494	3512F/60-71-76	3645*/63-71-76	3680*/64-71-76	3714*/65-71-76
		3503**60-72-77	3603**71-83-86	3635**74-87-89	3665**78-90-92
32	3524	3534F/60-72-77	3673*/64-72-77	3709*/65-72-77	3744*/66-72-77
		3529**60-73-77	3631**71-83-86	3663**74-87-90	3694**78-91-93
30	3524	3544F/60-72-77	3678*/64-72-77	3714*/65-72-77	3748*/66-72-77
		3534**60-73-78	3636**71-84-87	3668**75-88-90	3698**79-91-93
28	3525	3554F/61-72-77	3682*/64-72-77	3718*/65-72-77	3752*/66-72-77
		3540**61-74-78	3642**72-84-87	3673**75-88-91	3703**79-92-94
26	3526	3564F/61-72-77	3687*/64-72-77	3722*/65-72-77	3756*/66-72-77
		3545**61-74-78	3647**72-85-88	3678**76-89-91	3708**80-93-94
24	3527	3574F/61-72-77	3691*/64-72-77	3726*/65-72-77	3760*/66-72-77
		3550**61-75-79	3652**73-86-88	3683**76-89-92	3713**80-93-95
22	3527	3583*/62-72-77	3696*/64-72-77	3731*/65-72-77	3764*/66-72-77
		3556**62-75-79	3657**73-86-89	3689**77-90-92	3718**81-94-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

18L 48 1417 0

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 18L

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3528	3588*/62-72-77	3700*/64-72-77	3735*/65-72-77	3768*/66-72-77
		3561**62-76-80	3662**74-87-89	3694**77-90-93	3723**81-94-96
18	3529	3592*/62-72-77	3704*/65-72-77	3739*/65-72-77	3772*/66-72-77
		3566**63-76-80	3667**74-87-90	3699**78-91-93	3728**82-95-96
16	3529	3597*/62-72-77	3708*/65-72-77	3743*/65-72-77	3776*/66-72-77
		3571**63-77-80	3672**75-88-90	3703**78-92-94	3733**82-95-97
14	3530	3602*/62-72-77	3713*/65-72-77	3747*/66-72-77	3780*/66-72-77
		3577**64-77-81	3678**75-88-91	3709**79-92-94	3738**83-96-98
12	3531	3606*/62-72-77	3717*/65-72-77	3752*/66-72-77	3785*/66-72-77
		3582**64-78-81	3683**76-89-91	3714**79-93-95	3743**83-97-98
10	3532	3611*/62-72-77	3721*/65-72-77	3756*/66-72-77	3787F/67-72-77
		3588**64-78-82	3689**76-89-92	3719**80-93-95	3747**84-97-99
8	3532	3616*/62-72-77	3726*/65-72-77	3760*/66-72-77	3787F/67-72-77
		3593**65-79-82	3694**77-90-92	3724**80-94-96	3752**84-98-99
6	3533	3620*/62-72-77	3730*/65-72-77	3764*/66-72-77	3787F/67-72-77
		3599**65-79-83	3699**77-91-93	3730**81-94-96	3757**85-98-00
4	3533	3625*/62-72-77	3734*/65-72-77	3767*/66-72-77	3787F/67-72-77
		3604**66-80-83	3704**78-91-93	3735**82-95-97	3762**86-99-00
2	3534	3629*/63-72-77	3738*/65-72-77	3771*/66-72-77	3787F/67-72-77
		3609**66-80-84	3709**78-92-94	3739**82-96-97	3767**86-00-01
0	3534	3633*/63-72-77	3741*/65-72-77	3775*/66-72-77	3787F/67-72-77
		3614**67-81-84	3714**79-92-94	3744**83-96-98	3771**87-00-01
-2	3534	3637*/63-72-77	3745*/65-72-77	3778*/66-72-77	3787F/67-72-77
		3620**67-81-85	3719**79-93-95	3748**83-97-98	3775**87-01-02
-4	3534	3642*/63-72-77	3749*/66-72-77	3782*/66-72-77	3787F/67-72-77
		3625**68-82-85	3724**80-94-95	3753**84-98-99	3778**88-01-02
-6	3534	3646*/63-72-77	3752*/66-72-77	3785*/66-72-77	3787F/67-72-77
		3630**68-82-86	3729**80-94-96	3757**84-98-00	3778**89-01-02
-8	3534	3650*/63-72-77	3756*/66-72-77	3787F/66-72-77	3787F/67-72-77
		3635**69-83-86	3734**81-95-96	3762**85-99-00	3778**89-01-02
-10	3534	3654*/63-72-77	3759*/66-72-77	3787F/67-72-77	3787F/67-72-77
		3640**69-84-86	3739**81-95-97	3766**86-00-01	3778**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.10 PERCENT FOR TODA AND -0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18L	48	1417	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 18R

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2586	2542*/48-48-52	2618*/48-50-54	2643*/48-50-54	2667*/49-50-54
		2553**51-54-57	2654**61-61-64	2686**64-64-66	2718**64-68-69
58A	2643	2593*/50-50-54	2671*/50-51-55	2696*/50-51-55	2721*/50-51-55
		2602**52-54-58	2705**62-62-64	2737**60-63-66	2769**64-68-70
56A	2709	2651*/51-51-56	2733*/51-53-57	2759*/52-53-57	2784*/52-53-57
		2658**53-55-59	2763**60-63-66	2796**62-65-67	2829**65-69-71
54	2777	2711*/53-53-57	2795*/53-55-59	2822*/54-55-59	2848*/54-55-59
		2714**53-54-58	2822**61-63-66	2857**63-66-69	2890**66-70-72
52	2853	2774*/53-54-59	2863*/55-57-61	2892*/55-57-61	2919*/56-57-61
			2889**62-65-68	2924**64-67-70	2959**67-71-73
50	2927	2831*/53-56-61	2929*/56-59-63	2959*/57-59-63	2987*/57-59-63
			2953**62-64-67	2990**65-67-70	3026**68-72-74
48	3005	2889*/53-57-62	3005*/59-61-65	3028*/58-61-65	3057*/59-61-65
			3018**62-63-67	3057**65-67-71	3092**69-72-75
46	3079	2939F/53-59-64	3077*/62-63-67	3092*/59-63-67	3123*/60-63-67
				3118**65-68-71	3154**69-72-75
44	3150	2980F/54-60-65	3135*/62-64-69	3155*/61-65-69	3187*/61-65-69
				3177**65-68-72	3215**69-73-76
42	3220	3021F/54-61-66	3190*/62-66-70	3220*/62-67-71	3249*/62-67-71
				3235**66-68-73	3274**69-73-76
40	3289	3061F/54-61-67	3244*/63-67-72	3289*/65-68-73	3311*/64-68-73
				3291**66-69-73	3334**69-73-77
38	3354	3097F/55-62-68	3293*/63-68-73	3344*/66-70-74	3369*/65-70-74
					3390**69-74-78
36	3425	3135F/55-63-69	3345*/63-69-74	3398*/66-71-76	3439*/65-71-76
					3463**69-74-78
34	3494	3168F/55-64-70	3385F/63-70-75	3466*/66-71-76	3502*/65-71-76
					3520**69-74-78
32	3524	3188F/55-64-71	3408F/63-71-76	3498*/66-71-76	3530*/66-72-77
					3547**69-74-79
30	3524	3197F/56-65-71	3425F/63-71-76	3504*/66-72-76	3534*/66-72-77
					3552**69-75-79
28	3525	3206F/56-65-71	3443*/64-71-76	3510*/67-72-76	3538*/66-72-77
					3558**70-75-79
26	3526	3216F/56-65-72	3452*/64-71-76	3516*/67-72-76	3542*/66-72-77
					3563**70-76-80
24	3527	3225F/57-65-72	3462*/64-71-76	3522*/67-72-77	3546*/66-72-77
					3569**71-76-80

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

18R	54	1101	0	69	1407	0	94	1606	0

	241	18018	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 18R

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3527	3234F/57-66-72	3471*/65-71-76	3527*/68-72-77	3550*/66-72-77 3574**71-77-81
20	3528	3243F/57-66-72	3480*/65-71-76	3528*/67-72-77	3554*/66-72-77 3533**68-73-77
18	3529	3253F/57-66-73	3488*/65-71-76	3529*/67-72-77	3558*/66-72-77 3539**69-73-78
16	3529	3262F/58-67-73	3494*/66-71-76	3529*/66-72-77	3562*/66-72-77 3545**69-74-78
14	3530	3272F/58-67-73	3500*/66-71-76	3530*/66-72-77	3566*/66-72-77 3551**70-74-79
12	3531	3282F/58-67-73	3506*/67-72-76	3533*/66-72-77	3570*/66-72-77 3557**70-75-79
10	3532	3292F/59-67-73	3512*/67-72-76	3537*/66-72-77	3574*/67-72-77 3563**71-75-79
8	3532	3303F/59-68-74	3518*/68-72-77	3541*/66-72-77	3578*/67-72-77 3568**71-76-80
6	3533	3313F/59-68-74	3524*/68-72-77	3545*/66-72-77	3582*/67-72-77 3574**72-76-80
4	3533	3324F/60-68-74	3530*/69-72-77	3549*/66-72-77	3586*/67-72-77 3579**72-77-81
2	3534	3334F/60-69-74	3534*/69-72-77	3553*/66-72-77	3589*/67-72-77 3536**69-73-77
0	3534	3344F/60-69-75	3534*/68-72-77	3557*/66-72-77	3593*/67-72-77 3542**70-73-78
-2	3534	3355F/61-69-75	3534*/68-72-77	3560*/66-72-77	3596*/67-72-77 3547**70-74-78
-4	3534	3366F/61-69-75	3534*/67-72-77	3564*/66-72-77	3600*/67-72-77 3553**71-74-79
-6	3534	3374*/61-70-75	3534*/66-72-77	3567*/66-72-77	3603*/67-72-77 3559**71-75-79
-8	3534	3381*/62-70-75	3534*/66-72-77	3571*/67-72-77	3607*/67-72-77 3565**72-75-80
-10	3534	3387*/62-70-75	3537*/66-72-77	3574*/67-72-77	3610*/67-72-77 3570**72-76-80
					3618**76-81-84
					3663**79-86-89

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
18R	54	1101	0	69	1407	0	94	1606	0
	241	18018	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 19

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2586	2621*/47-50-54	2679*/48-50-54	2696*/48-50-54	2714*/49-50-54
		2696**61-66-68	2751**68-74-75	2751**69-74-75	2751**69-74-75
58A	2643	2676*/49-51-55	2736*/50-51-55	2755*/50-51-55	2773*/50-51-55
		2745**61-65-68	2808**69-76-77	2808**70-76-77	2808**70-76-77
56A	2709	2740*/50-53-57	2802*/51-53-57	2821*/52-53-57	2840*/52-53-57
		2801**61-65-67	2874**71-78-79	2874**71-78-79	2874**72-78-79
54	2777	2803*/51-55-59	2868*/53-55-59	2889*/54-55-59	2908*/54-55-59
		2859**62-66-69	2936**71-78-80	2945**73-80-81	2945**74-80-81
52	2853	2874*/53-57-61	2942*/55-57-61	2963*/55-57-61	2983*/56-57-61
		2922**62-67-70	3006**71-79-80	3025**75-82-83	3026**75-83-84
50	2927	2944*/54-59-63	3013*/56-59-63	3035*/57-59-63	3056*/57-59-63
		2985**62-68-71	3073**72-79-81	3093**75-83-84	3105**77-85-86
48	3005	3015*/55-61-65	3087*/57-61-65	3110*/58-61-65	3132*/59-61-65
		3049**62-68-71	3141**72-79-81	3163**75-83-84	3182**79-87-88
46	3079	3083*/57-63-67	3157*/59-63-67	3180*/59-63-67	3203*/60-63-67
		3110**61-69-73	3206**72-79-82	3229**75-83-85	3251**79-87-88
44	3150	3150*/58-65-69	3225*/60-65-69	3249*/61-65-69	3273*/61-65-69
		3169**61-69-73	3269**72-80-82	3296**75-83-85	3321**79-87-89
42	3220	3220*/61-67-71	3292*/61-67-71	3318*/62-67-71	3344*/62-67-71
		3227**61-70-74	3333**72-80-83	3360**75-84-86	3386**79-87-89
40	3289	3280*/61-68-73	3359*/62-68-73	3386*/63-68-73	3412*/64-68-73
		3284**61-70-74	3393**72-80-83	3430**75-84-86	3472**78-87-89
38	3354	3336*/61-69-74	3426*/63-70-74	3463*/64-70-74	3495*/65-70-74
		3338**61-70-75	3472**71-80-83	3506**75-84-86	3535**78-88-89
36	3425	3393*/61-71-75	3503*/64-71-76	3530*/65-71-76	3557*/65-71-76
			3532**71-81-84	3563**75-84-87	3593**78-88-90
34	3494	3447F/61-71-76	3556*/64-71-76	3584*/64-71-76	3611*/65-71-76
			3583**71-81-84	3616**75-85-87	3648**78-88-91
32	3524	3487F/61-71-76	3584*/64-72-77	3613*/65-72-77	3641*/66-72-77
			3611**71-81-84	3644**75-85-88	3676**79-89-91
30	3524	3496*/61-71-76	3587*/64-72-77	3616*/65-72-77	3644*/66-72-77
			3616**72-82-85	3649**75-85-88	3681**79-89-91
28	3525	3501*/61-71-76	3590*/64-72-77	3619*/65-72-77	3646*/66-72-77
			3621**72-82-85	3654**76-86-89	3687**80-90-92
26	3526	3505*/62-72-76	3593*/64-72-77	3621*/65-72-77	3649*/66-72-77
		3507**62-72-77	3627**73-83-86	3660**76-87-89	3691**80-90-92
24	3527	3509*/62-72-76	3596*/64-72-77	3624*/65-72-77	3652*/66-72-77
		3512**62-73-77	3632**73-83-86	3665**77-87-90	3696**81-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19	11	277	0	114	2582	0	121	2715	0
	154	3198	0	201	4428	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 19

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3527	3514*/63-72-76	3598*/64-72-77	3627*/65-72-77	3654*/66-72-77
		3518**63-73-78	3637**74-84-87	3670**77-88-90	3701**81-91-93
20	3528	3518*/63-72-77	3601*/65-72-77	3629*/65-72-77	3657*/66-72-77
		3523**63-74-78	3643**74-84-87	3675**78-88-91	3706**82-92-94
18	3529	3522*/64-72-77	3604*/65-72-77	3632*/65-72-77	3660*/66-72-77
		3528**64-74-79	3648**74-85-88	3681**78-89-91	3711**82-93-95
16	3529	3526*/64-72-77	3606*/65-72-77	3635*/66-72-77	3662*/66-72-77
		3533**64-75-79	3653**75-85-88	3686**79-89-92	3716**83-93-95
14	3530	3530*/65-72-77	3609*/65-72-77	3637*/66-72-77	3665*/66-72-77
		3539**65-75-79	3659**75-86-89	3691**79-90-92	3722**83-94-96
12	3531	3531*/64-72-77	3612*/65-72-77	3640*/66-72-77	3668*/66-72-77
		3544**65-76-80	3664**76-87-89	3697**80-90-93	3727**84-94-96
10	3532	3532*/64-72-77	3615*/65-72-77	3643*/66-72-77	3670*/67-72-77
		3549**65-76-80	3669**76-87-90	3702**80-91-93	3733**84-95-97
8	3532	3532*/63-72-77	3617*/65-72-77	3645*/66-72-77	3673*/67-72-77
		3555**66-77-81	3675**77-88-90	3707**81-92-94	3737**85-96-97
6	3533	3533*/63-72-77	3620*/65-72-77	3648*/66-72-77	3675*/67-72-77
		3560**66-77-81	3680**78-88-91	3712**81-92-94	3742**85-96-98
4	3533	3534*/62-72-77	3622*/65-72-77	3650*/66-72-77	3678*/67-72-77
		3565**67-78-82	3686**78-89-91	3717**82-93-95	3747**86-97-98
2	3534	3537*/63-72-77	3625*/65-72-77	3652*/66-72-77	3680*/67-72-77
		3571**67-78-82	3691**79-89-92	3722**82-93-95	3752**86-97-99
0	3534	3539*/63-72-77	3627*/65-72-77	3655*/66-72-77	3682*/67-72-77
		3576**68-79-83	3696**79-90-92	3727**83-94-96	3756**87-98-99
-2	3534	3541*/63-72-77	3629*/65-72-77	3657*/66-72-77	3684*/67-72-77
		3581**68-80-83	3701**80-91-93	3733**84-95-96	3761**88-99-00
-4	3534	3544*/63-72-77	3631*/66-72-77	3659*/66-72-77	3686*/67-72-77
		3586**69-80-84	3706**80-91-93	3738**84-95-97	3765**88-99-01
-6	3534	3546*/63-72-77	3633*/66-72-77	3661*/66-72-77	3688*/67-72-77
		3591**69-81-84	3711**81-92-94	3742**85-96-98	3770**89-00-01
-8	3534	3548*/63-72-77	3635*/66-72-77	3663*/67-72-77	3689*/67-72-77
		3596**70-81-85	3716**81-92-94	3747**85-97-98	3774**89-01-02
-10	3534	3550*/63-72-77	3637*/66-72-77	3665*/67-72-77	3691*/67-72-77
		3602**70-82-85	3721**82-93-95	3751**86-97-99	3778**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE -0.08 PERCENT FOR TODA AND -0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
19	11	277	0	114	2582	0	121	2715	0
	154	3198	0	201	4428	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 115 FT

RUNWAY 36L

ZBAA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2586	2586*/49-50-54	2676*/50-50-54	2700*/50-50-54	2723*/50-50-54
		2590**50-50-54	2673**58-61-63	2696**61-64-66	2718**64-68-70
58A	2643	2636*/51-51-55	2730*/51-51-55	2754*/51-51-55	2778*/51-51-55
			2723**59-61-64	2747**62-65-67	2770**65-69-70
56A	2709	2686*/52-52-57	2792*/53-53-57	2818*/53-53-57	2843*/53-53-57
			2781**60-62-65	2806**63-66-68	2830**66-69-71
54	2777	2731*/52-53-58	2856*/55-55-59	2882*/55-55-59	2908*/55-55-59
			2841**61-63-66	2867**64-67-69	2891**67-70-72
52	2853	2780*/53-55-59	2924*/57-57-61	2954*/57-57-61	2981*/57-57-61
			2906**61-64-67	2934**65-67-70	2960**68-71-73
50	2927	2827*/53-56-61	2981*/58-59-63	3023*/59-59-63	3051*/59-59-63
			2968**61-64-67	2997**65-68-71	3025**68-72-74
48	3005	2874*/53-57-62	3046*/60-61-65	3090*/61-61-65	3124*/61-61-65
			3031**62-64-68	3061**65-68-71	3090**68-72-75
46	3079	2917*/54-58-63	3107*/62-63-67	3145*/62-63-67	3190*/63-63-67
			3091**62-64-69	3122**65-68-72	3153**68-72-75
44	3150	2960*/54-59-65	3148*/62-65-69	3206*/64-65-69	3253*/65-65-69
				3182**65-69-72	3214**69-72-76
42	3220	3003*/54-60-66	3194*/62-66-71	3268*/66-67-71	3317*/67-67-71
				3240**65-69-73	3273**69-73-76
40	3289	3044*/55-61-67	3238*/63-67-72	3310*/66-68-73	3371*/67-68-73
				3297**65-69-74	3332**69-73-77
38	3354	3081*/55-62-68	3278*/63-68-73	3349*/66-70-74	3465*/70-70-74
					3388**69-73-77
36	3425	3120*/55-63-69	3322*/63-69-74	3394*/66-71-75	3516*/70-71-76
					3460**69-74-78
34	3494	3154*/55-63-70	3361*/64-70-75	3453*/66-71-76	3549*/69-71-76
					3518**69-74-78
32	3524	3174*/56-64-71	3384*/64-70-75	3491*/66-71-76	3572*/69-72-77
					3545**69-74-78
30	3524	3183*/56-64-71	3394*/64-70-76	3500*/66-71-76	3583*/70-72-77
					3550**69-75-79
28	3525	3192*/56-64-71	3404*/64-71-76	3510*/66-72-76	3595*/71-72-77
					3556**70-75-79
26	3526	3200*/57-65-71	3415*/65-71-76	3520*/67-72-77	3607*/71-72-77
					3561**70-76-80
24	3527	3209*/57-65-71	3433*/65-71-76	3530*/67-72-77	3618*/72-72-77
				3528**67-72-77	3566**71-76-80
22	3527	3218*/57-65-72	3450*/65-71-76	3542*/68-72-77	3630*/72-72-77
				3534**68-73-77	3572**71-77-81

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

36L 10 109 0 48 1053 0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36L BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D10.5 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 115 FT

RUNWAY 36L

ZBAA

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3528	3227*/58-66-72	3468*/65-71-76	3553*/68-72-77	3636*/72-72-77
				3539**68-73-78	3577**72-77-81
18	3529	3236*/58-66-72	3485*/65-71-76	3565*/69-72-77	3641*/72-72-77
				3545**69-74-78	3583**72-78-82
16	3529	3245*/58-66-72	3495*/66-71-76	3577*/69-72-77	3647*/72-72-77
				3550**69-74-79	3588**73-78-82
14	3530	3254*/59-66-73	3505*/66-72-76	3589*/70-72-77	3653*/72-72-77
				3556**69-75-79	3594**73-79-82
12	3531	3263*/59-67-73	3515*/66-72-76	3601*/71-72-77	3660*/72-72-77
				3562**70-75-79	3600**74-79-83
10	3532	3272*/59-67-73	3525*/67-72-77	3613*/71-72-77	3665*/72-72-77
				3567**70-76-80	3606**74-80-83
8	3532	3281*/60-67-73	3535*/67-72-77	3625*/72-72-77	3671*/72-72-77
			3534**67-72-77	3573**71-76-80	3611**75-80-84
6	3533	3291*/60-67-73	3547*/68-72-77	3636*/72-72-77	3676*/72-72-77
			3539**68-73-77	3579**71-77-81	3617**75-81-84
4	3533	3301*/60-68-74	3559*/68-72-77	3642*/72-72-77	3680*/72-72-77
			3545**68-74-78	3584**72-78-81	3622**76-82-85
2	3534	3310*/61-68-74	3572*/69-72-77	3647*/72-72-77	3683*/72-72-77
			3551**69-74-78	3590**72-78-82	3628**76-82-85
0	3534	3320*/61-68-74	3584*/70-72-77	3653*/72-72-77	3687*/72-72-77
			3556**69-75-79	3595**73-79-82	3633**77-83-86
-2	3534	3330*/61-68-74	3596*/70-72-77	3657*/72-72-77	3690*/72-72-77
			3562**70-75-79	3601**73-79-83	3639**77-83-86
-4	3534	3340*/62-69-74	3608*/71-72-77	3661*/72-72-77	3694*/72-72-77
			3567**70-76-80	3607**74-80-83	3644**78-84-87
-6	3534	3350*/62-69-75	3620*/72-72-77	3664*/72-72-77	3697*/72-72-77
			3573**71-76-80	3612**74-80-84	3650**78-85-87
-8	3534	3360*/62-69-75	3632*/72-72-77	3668*/72-72-77	3700*/72-72-77
			3578**71-77-81	3617**75-81-84	3655**79-85-88
-10	3534	3370*/63-70-75	3638*/72-72-77	3671*/72-72-77	3703*/72-72-77
			3584**72-77-81	3623**75-82-85	3661**79-86-88

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 410 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3200 M LONG WITH 0 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.08 PERCENT FOR TODA AND 0.08 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36L	10	109	0	48	1053	0			

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36L BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D10.5 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 115 FT

RUNWAY 36R

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2586	2681*/49-50-54	2751*/50-50-54	2772*/50-50-54	2792*/50-50-54
		2705**61-66-67	2751**69-74-75	2751**69-74-75	2751**69-74-75
58A	2643	2735*/50-51-55	2807*/51-51-55	2828*/51-51-55	2849*/51-51-55
		2753**61-66-68	2808**70-76-77	2808**70-76-77	2808**71-76-77
56A	2709	2798*/52-53-57	2873*/53-53-57	2895*/53-53-57	2916*/53-53-57
		2809**61-66-69	2874**71-78-79	2874**72-78-79	2874**73-78-79
54	2777	2861*/54-55-59	2939*/55-55-59	2962*/55-55-59	2984*/55-55-59
		2867**61-67-69	2937**71-79-80	2945**75-80-81	2945**75-80-81
52	2853	2933*/56-57-61	3013*/57-57-61	3037*/57-57-61	3059*/57-57-61
		2931**61-67-70	3008**71-79-80	3026**75-83-84	3026**77-83-84
50	2927	3002*/58-59-63	3085*/59-59-63	3109*/59-59-63	3133*/59-59-63
		2994**61-67-70	3075**71-79-81	3097**75-83-84	3105**79-85-86
48	3005	3073*/60-61-65	3155*/60-61-65	3185*/61-61-65	3209*/61-61-65
		3058**61-68-71	3142**71-80-81	3166**75-84-85	3185**78-87-88
46	3079	3140*/62-63-67	3225*/62-63-67	3253*/62-63-67	3282*/63-63-67
		3118**61-68-71	3208**71-80-82	3233**75-84-85	3256**78-88-89
44	3150	3196*/62-65-69	3294*/64-65-69	3324*/64-65-69	3356*/65-65-69
		3178**61-68-72	3272**71-80-82	3300**75-84-86	3326**78-88-89
42	3220	3246*/61-67-71	3364*/66-67-71	3395*/66-67-71	3439*/67-67-71
		3235**61-68-73	3335**71-80-83	3365**75-84-86	3392**78-88-90
40	3289	3294*/61-68-73	3447*/67-68-73	3491*/67-68-73	3519*/68-68-73
		3292**61-69-73	3397**71-81-83	3438**75-85-87	3483**78-88-90
38	3354	3342*/61-70-74	3522*/69-70-74	3552*/69-70-74	3581*/69-70-74
			3477**71-81-83	3513**74-85-87	3543**78-89-90
36	3425	3392*/61-71-75	3583*/70-71-76	3613*/70-71-76	3643*/70-71-76
			3536**71-81-84	3570**74-85-87	3601**78-89-91
34	3494	3452*/61-71-76	3631*/70-71-76	3663*/70-71-76	3695*/71-71-76
			3588**71-81-84	3623**74-85-88	3656**78-89-91
32	3524	3488*/61-71-76	3661*/71-72-77	3693*/71-72-77	3725*/71-72-77
			3615**71-82-85	3651**75-86-88	3685**78-90-92
30	3524	3496*/61-71-76	3665*/71-72-77	3697*/71-72-77	3729*/71-72-77
			3620**72-82-85	3656**75-86-89	3690**79-90-92
28	3525	3503*/61-71-76	3669*/71-72-77	3701*/71-72-77	3733*/71-72-77
			3626**72-83-86	3661**76-87-89	3695**79-91-93
26	3526	3510*/62-72-76	3673*/71-72-77	3705*/71-72-77	3737*/71-72-77
			3631**72-83-86	3666**76-87-90	3700**80-91-93
24	3527	3517*/62-72-77	3677*/71-72-77	3709*/71-72-77	3741*/71-72-77
			3636**73-84-87	3671**77-88-90	3705**80-92-94
22	3527	3524*/63-72-77	3681*/71-72-77	3713*/71-72-77	3749*/72-72-77
			3642**73-84-87	3677**77-88-91	3710**81-93-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

36R 39 875 0

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D9.3 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 115 FT

RUNWAY 36R

ZBAA

*** FLAPS 15 ***

AIR COND OFF

ANTI-ICE OFF

BEIJING

BEIJING

DATED 08-FEB-2017

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3528	3532*/63-72-77	3685*/71-72-77	3717*/71-72-77	3752*/72-72-77
		3530**63-72-77	3647**74-85-88	3682**78-89-91	3715**81-93-95
18	3529	3540*/64-72-77	3689*/71-72-77	3721*/71-72-77	3756*/72-72-77
		3536**63-73-77	3652**74-85-88	3687**78-90-92	3720**82-94-95
16	3529	3548*/64-72-77	3693*/71-72-77	3725*/71-72-77	3759*/72-72-77
		3541**64-73-78	3657**75-86-89	3693**79-90-92	3725**82-94-96
14	3530	3557*/65-72-77	3697*/71-72-77	3729*/71-72-77	3763*/72-72-77
		3547**64-74-78	3663**75-86-89	3698**79-91-93	3730**83-95-97
12	3531	3565*/65-72-77	3701*/71-72-77	3733*/72-72-77	3767*/72-72-77
		3553**65-74-79	3668**76-87-90	3703**80-91-93	3735**83-95-97
10	3532	3573*/66-72-77	3705*/71-72-77	3741*/72-72-77	3770*/72-72-77
		3558**65-75-79	3673**76-88-90	3708**80-92-94	3740**84-96-98
8	3532	3581*/66-72-77	3709*/71-72-77	3745*/72-72-77	3774*/72-72-77
		3564**66-75-80	3679**77-88-91	3713**81-92-94	3745**84-97-98
6	3533	3589*/67-72-77	3713*/71-72-77	3748*/72-72-77	3777*/72-72-77
		3569**66-76-80	3684**77-89-91	3718**81-93-95	3750**85-97-99
4	3533	3597*/68-72-77	3717*/72-72-77	3751*/72-72-77	3780*/72-72-77
		3574**67-77-80	3690**78-89-92	3724**82-94-95	3754**86-98-99
2	3534	3605*/68-72-77	3720*/72-72-77	3754*/72-72-77	3783*/72-72-77
		3580**67-77-81	3695**78-90-92	3729**82-94-96	3759**86-99-00
0	3534	3613*/69-72-77	3728*/72-72-77	3758*/72-72-77	3786*/72-72-77
		3585**68-78-81	3700**79-90-93	3734**83-95-96	3764**87-99-00
-2	3534	3620*/70-72-77	3731*/72-72-77	3761*/72-72-77	3787F/72-72-77
		3590**68-78-82	3705**79-91-93	3739**83-95-97	3768**87-00-01
-4	3534	3628*/70-72-77	3734*/72-72-77	3763*/72-72-77	3787F/72-72-77
		3596**69-79-82	3710**80-92-94	3743**84-96-98	3773**88-00-02
-6	3534	3635*/71-72-77	3737*/72-72-77	3766*/72-72-77	3787F/72-72-77
		3601**69-79-83	3715**81-92-94	3747**85-97-98	3777**89-01-02
-8	3534	3643*/71-72-77	3740*/72-72-77	3769*/72-72-77	3787F/72-72-77
		3607**70-80-83	3720**81-93-95	3752**85-97-99	3778**89-01-02
-10	3534	3644*/71-72-77	3743*/72-72-77	3772*/72-72-77	3787F/72-72-77
		3612**70-80-84	3725**82-94-95	3757**86-98-99	3778**90-01-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 420 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3800 M LONG WITH 200 M OF CLEARWAY AND 60 M OF STOPWAY

RUNWAY SLOPES ARE 0.10 PERCENT FOR TODA AND 0.10 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
36R	39	875	0						

ENG-OUT PROCEDURE:

ALLOWABLE TAKEOFF WEIGHTS FOR RWY 36R BASED ON A 15 DEGREE BANKED CLIMBING -RIGHT- TURN,
 COMMENCED AT D9.3 PEK VOR/DME TO A MAG COURSE OF 124 DEGREES

ELEVATION 1761 FT

RUNWAY 10L OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2431	2653F/44-45-49	2823F/45-45-49	2881F/45-45-49	2941F/45-45-49
		2523**52-58-60	2578**61-67-68	2587**65-69-70	2587**65-69-70
58A	2484	2690F/46-47-51	2860F/47-47-51	2920F/47-47-51	2980F/47-47-51
		2571**52-58-61	2627**62-68-69	2641**65-71-72	2641**67-71-72
56A	2546	2731F/48-48-52	2904F/48-48-52	2964F/48-48-52	3025F/48-48-52
		2627**53-59-62	2684**63-69-70	2700**66-72-73	2704**69-73-74
54A	2609	2772F/49-50-54	2947F/50-50-54	3008F/50-50-54	3070F/50-50-54
		2680**53-60-62	2741**63-69-71	2758**66-73-74	2770**70-75-76
52A	2667	2811F/51-52-56	2989F/52-52-56	3050F/52-52-56	3113F/52-52-56
		2731**54-60-63	2795**63-70-71	2813**66-73-74	2830**70-76-77
50	2729	2852F/52-54-58	3031F/54-54-58	3093F/54-54-58	3157F/54-54-58
		2783**54-60-64	2851**63-70-72	2870**67-73-75	2888**70-77-78
48	2799	2896F/53-56-60	3078F/55-56-60	3141F/56-56-60	3205F/56-56-60
		2842**54-61-64	2912**64-71-73	2933**67-74-76	2953**70-77-79
46	2874	2941F/55-58-62	3126F/56-58-62	3190F/57-58-62	3255F/58-58-62
		2905**54-61-65	2978**64-71-73	3001**67-74-76	3021**70-78-79
44	2946	2985F/54-60-64	3173F/58-60-64	3238F/58-60-64	3305F/59-60-64
		2964**54-62-66	3042**64-71-74	3065**67-75-77	3087**71-78-80
42	3012	3027F/54-61-66	3217F/59-61-66	3283F/60-61-66	3353F/60-61-66
		3019**54-62-66	3099**64-72-75	3124**67-75-78	3148**71-79-81
40	3078	3069F/54-63-67	3261F/60-63-67	3330F/61-63-67	3401F/61-63-67
			3157**64-72-75	3183**68-76-78	3207**71-79-81
38	3143	3107F/55-64-68	3303F/62-65-69	3374F/62-65-69	3478F/63-65-69
			3213**64-73-76	3240**68-76-79	3266**71-79-82
36	3206	3147F/55-65-69	3347F/63-66-71	3424F/63-66-71	3525F/64-66-71
			3266**65-73-77	3295**68-77-80	3323**71-80-82
34	3264	3182F/56-65-70	3386F/64-68-72	3493F/64-68-72	3565F/65-68-72
			3318**65-74-77	3348**68-77-80	3377**71-80-83
32	3322	3217F/56-66-71	3437F/65-69-74	3531F/65-69-74	3604F/66-69-74
			3369**65-74-78	3400**68-77-81	3440**71-80-83
30	3369	3246F/56-67-72	3492F/65-70-75	3564F/66-70-75	3637F/67-70-75
			3410**65-74-78	3456**68-77-81	3496**71-81-83
28	3401	3269F/57-67-73	3517F/66-71-76	3588F/67-71-76	3662F/67-71-76
			3451**65-75-78	3493**68-78-81	3524**72-81-84
26	3401	3278F/57-68-73	3526F/66-71-76	3599F/67-71-76	3672F/67-71-76
			3457**65-75-79	3497**69-78-81	3528**72-82-84
24	3401	3288F/57-68-73	3536F/66-71-76	3609F/67-71-76	3683F/67-71-76
			3464**66-75-79	3502**69-79-82	3533**73-82-85
22	3401	3297F/57-68-73	3546F/66-71-76	3619F/67-71-76	3694F/67-71-76
			3470**66-76-79	3506**69-79-82	3537**73-83-85

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 540 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

10L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 10L OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3401	3307F/58-68-74	3556F/66-71-76	3630F/67-71-76	3705F/68-71-76
			3477**66-76-80	3511**70-80-83	3542**74-83-86
18	3402	3316F/58-69-74	3567F/66-71-76	3640F/67-71-76	3715F/68-71-76
			3484**67-77-80	3516**70-80-83	3546**74-84-86
16	3402	3326F/58-69-74	3577F/66-71-76	3651F/67-71-76	3726F/68-71-76
			3489**67-77-81	3520**71-81-84	3551**74-84-87
14	3402	3336F/59-69-74	3587F/66-71-76	3662F/67-71-76	3738F/68-71-76
			3494**68-78-81	3525**71-81-84	3556**75-85-87
12	3402	3346F/59-70-74	3598F/67-71-76	3672F/67-71-76	3749F/68-71-76
			3498**68-78-81	3530**72-82-84	3560**75-85-88
10	3403	3356F/59-70-75	3609F/67-71-76	3684F/67-71-76	3760F/68-71-76
			3503**69-79-82	3535**72-82-85	3565**76-86-88
8	3403	3366F/59-70-75	3619F/67-71-76	3695F/67-71-76	3772F/68-71-76
			3508**69-79-82	3540**73-83-85	3570**76-86-88
6	3404	3377F/60-70-75	3630F/67-71-76	3706F/67-71-76	3783F/68-71-76
			3513**70-80-83	3545**73-83-86	3575**77-87-89
4	3404	3387F/60-71-75	3641F/67-71-76	3717F/67-71-76	3787F/68-71-76
			3518**70-80-83	3550**74-84-86	3580**77-87-89
2	3404	3397F/60-71-76	3652F/67-71-76	3729F/68-71-76	3787F/68-71-76
			3523**71-81-84	3554**74-84-87	3584**78-88-90
0	3404	3408F/61-71-76	3663F/67-71-76	3740F/68-71-76	3787F/68-71-76
		3406**61-71-76	3528**71-81-84	3559**75-85-87	3589**79-88-90
-2	3405	3425F/61-71-76	3675F/67-71-76	3752F/68-71-76	3787F/68-71-76
		3411**61-72-76	3533**72-82-85	3564**75-85-88	3594**79-89-91
-4	3405	3444F/62-71-76	3686F/67-71-76	3764F/68-71-76	3787F/68-71-76
		3419**62-72-77	3538**72-82-85	3569**76-86-88	3598**80-90-91
-6	3405	3463F/63-71-76	3697F/67-71-76	3775F/68-71-76	3787F/69-71-76
		3426**62-73-77	3543**73-83-86	3574**76-86-89	3603**80-90-92
-8	3405	3482F/63-71-76	3709F/67-71-76	3787F/68-71-76	3787F/69-71-76
		3433**63-73-77	3547**73-83-86	3579**77-87-89	3607**81-91-92
-10	3405	3495F/64-71-76	3720F/67-71-76	3787F/68-71-76	3787F/69-71-76
		3440**63-74-78	3552**74-84-87	3583**78-88-90	3612**81-91-93

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 540 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

10L NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 10R OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2431	2465*/44-45-49	2519*/45-45-49	2536*/45-45-49	2552*/45-45-49
		2501**52-54-57	2571**61-66-67	2587**65-69-70	2587**65-69-70
58A	2484	2516*/46-47-51	2573*/47-47-51	2590*/47-47-51	2607*/47-47-51
		2548**53-55-58	2620**62-67-68	2638**65-70-71	2641**67-71-72
56A	2546	2576*/48-48-52	2636*/48-48-52	2653*/48-48-52	2671*/48-48-52
		2603**53-56-59	2676**63-67-69	2695**66-71-72	2704**69-73-74
54A	2609	2636*/49-50-54	2698*/50-50-54	2716*/50-50-54	2734*/50-50-54
		2656**54-56-59	2732**63-68-69	2752**66-71-73	2770**70-75-76
52A	2667	2691*/51-52-56	2756*/52-52-56	2775*/52-52-56	2794*/52-52-56
		2705**54-57-60	2785**63-68-70	2806**67-72-73	2825**70-75-76
50	2729	2747*/52-54-58	2816*/54-54-58	2836*/54-54-58	2855*/54-54-58
		2756**54-57-61	2839**64-68-70	2862**67-72-74	2883**70-76-77
48	2799	2808*/53-56-60	2883*/55-56-60	2905*/56-56-60	2925*/56-56-60
		2813**55-57-61	2899**64-69-71	2924**67-72-74	2946**70-76-78
46	2874	2872*/55-58-62	2954*/56-58-62	2978*/57-58-62	3001*/58-58-62
			2964**64-69-72	2990**67-73-75	3014**71-76-78
44	2946	2925*/55-59-63	3020*/58-60-64	3046*/58-60-64	3070*/59-60-64
			3025**64-69-72	3053**68-73-75	3079**71-77-79
42	3012	2972*/55-60-65	3081*/59-61-66	3108*/60-61-66	3134*/60-61-66
			3082**64-70-73	3111**68-73-76	3137**71-77-79
40	3078	3017*/56-61-66	3140*/60-63-67	3169*/61-63-67	3197*/61-63-67
			3138**65-70-73	3167**68-74-77	3195**71-77-80
38	3143	3060*/56-62-67	3197*/62-65-69	3228*/62-65-69	3257*/63-65-69
			3192**65-70-74	3223**68-74-77	3253**71-78-80
36	3206	3102*/56-63-68	3252*/63-66-71	3285*/63-66-71	3317*/64-66-71
			3245**65-71-75	3277**68-74-78	3309**72-78-81
34	3264	3139*/57-64-69	3303*/64-68-72	3339*/64-68-72	3373*/65-68-72
			3295**65-71-75	3329**68-75-78	3362**72-78-81
32	3322	3176*/57-65-70	3354*/65-69-74	3391*/65-69-74	3437*/66-69-74
			3344**65-71-76	3379**69-75-79	3415**72-79-82
30	3369	3206*/57-66-71	3394*/65-70-75	3450*/66-70-75	3497*/67-70-75
			3384**65-72-76	3426**69-75-79	3476**72-79-82
28	3401	3229*/58-66-72	3434*/66-71-76	3493*/67-71-76	3526*/67-71-76
			3412**66-72-77	3466**69-76-79	3507**72-79-82
26	3401	3237*/58-66-72	3443*/66-71-76	3497*/67-71-76	3530*/67-71-76
			3420**66-73-77	3473**69-76-80	3511**72-80-83
24	3401	3245*/58-67-72	3451*/66-71-76	3500*/67-71-76	3533*/67-71-76
			3428**66-73-77	3480**70-77-80	3516**73-80-83
22	3401	3253*/59-67-72	3458*/66-71-76	3504*/67-71-76	3536*/67-71-76
			3435**67-73-78	3486**70-77-80	3521**73-81-84

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 270 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

10R	12	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 10R OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3401	3261*/59-67-73	3465*/66-71-76	3507*/67-71-76	3539*/68-71-76
			3442**67-74-78	3491**70-78-81	3526**74-81-84
18	3402	3270*/59-67-73	3471*/66-71-76	3510*/67-71-76	3542*/68-71-76
			3449**68-74-78	3496**71-78-81	3531**74-82-85
16	3402	3278*/60-68-73	3478*/66-71-76	3514*/67-71-76	3545*/68-71-76
			3457**68-75-79	3501**71-79-82	3536**75-82-85
14	3402	3286*/60-68-73	3483*/66-71-76	3517*/67-71-76	3547*/68-71-76
			3464**68-75-79	3506**72-79-82	3541**75-83-86
12	3402	3295*/60-68-73	3488*/67-71-76	3520*/67-71-76	3550*/68-71-76
			3471**69-76-79	3511**72-80-83	3546**76-83-86
10	3403	3303*/61-68-74	3491*/67-71-76	3523*/67-71-76	3553*/68-71-76
			3479**69-76-80	3516**73-80-83	3551**76-84-87
8	3403	3312*/61-69-74	3495*/67-71-76	3526*/67-71-76	3556*/68-71-76
			3486**70-77-80	3522**73-81-84	3556**77-85-87
6	3404	3320*/61-69-74	3498*/67-71-76	3529*/67-71-76	3558*/68-71-76
			3491**70-77-81	3527**74-81-84	3561**77-85-88
4	3404	3329*/62-69-74	3501*/67-71-76	3532*/67-71-76	3561*/68-71-76
			3496**71-78-81	3532**74-82-85	3566**78-86-88
2	3404	3337*/62-69-74	3504*/67-71-76	3535*/68-71-76	3563*/68-71-76
			3502**71-78-82	3538**75-82-85	3571**78-86-89
0	3404	3346*/62-70-74	3507*/67-71-76	3537*/68-71-76	3565*/68-71-76
			3507**72-79-82	3543**75-83-86	3577**79-87-89
-2	3405	3354*/63-70-75	3510*/67-71-76	3539*/68-71-76	3567*/68-71-76
			3512**72-80-83	3548**76-83-86	3582**79-87-90
-4	3405	3362*/63-70-75	3512*/67-71-76	3541*/68-71-76	3569*/68-71-76
			3517**73-80-83	3553**76-84-87	3586**80-88-90
-6	3405	3370*/64-70-75	3515*/67-71-76	3543*/68-71-76	3571*/69-71-76
			3522**73-81-84	3558**77-85-87	3591**80-89-91
-8	3405	3377*/64-70-75	3517*/67-71-76	3545*/68-71-76	3572*/69-71-76
			3528**74-81-84	3563**77-85-88	3596**81-89-91
-10	3405	3385*/64-71-75	3519*/67-71-76	3547*/68-71-76	3574*/69-71-76
			3533**74-82-85	3568**78-86-88	3601**82-90-92

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 530 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 270 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE 1.00 PERCENT FOR TODA AND 1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
10R	12	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28L OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2431	2547*/41-45-49	2645*/42-45-49	2677*/43-45-49	2692*/43-45-49
		2536**54-60-62	2587**62-69-70	2587**63-69-70	2587**63-69-70
58A	2484	2593*/43-47-51	2692*/44-47-51	2726*/44-47-51	2754*/45-47-51
		2583**55-60-62	2641**64-71-72	2641**64-71-72	2641**65-71-72
56A	2546	2647*/44-48-52	2749*/45-48-52	2783*/46-48-52	2817*/46-48-52
		2638**56-61-63	2699**65-72-73	2704**66-73-74	2704**66-73-74
54A	2609	2701*/46-50-54	2805*/47-50-54	2840*/48-50-54	2874*/48-50-54
		2691**56-61-64	2756**66-72-73	2770**67-75-76	2770**68-75-76
52A	2667	2751*/47-52-56	2858*/49-52-56	2893*/49-52-56	2928*/49-52-56
		2740**56-61-64	2811**66-72-74	2830**69-76-77	2833**69-77-78
50	2729	2800*/49-54-58	2913*/50-54-58	2949*/51-54-58	2985*/51-54-58
		2792**56-62-65	2866**66-73-74	2887**69-76-78	2899**71-79-80
48	2799	2854*/50-56-60	2971*/52-56-60	3010*/52-56-60	3048*/53-56-60
		2850**56-62-65	2928**66-73-75	2950**69-77-78	2970**73-81-82
46	2874	2911*/51-58-62	3032*/53-58-62	3072*/54-58-62	3112*/54-58-62
		2911**56-62-66	2993**66-73-75	3017**69-77-79	3039**73-81-82
44	2946	2965*/52-60-64	3090*/54-60-64	3131*/55-60-64	3172*/56-60-64
		2971**56-62-66	3056**66-73-76	3082**69-77-79	3106**73-81-82
42	3012	3015*/53-61-66	3143*/55-61-66	3185*/56-61-66	3228*/57-61-66
		3025**56-63-67	3114**66-74-76	3141**69-77-80	3166**73-81-83
40	3078	3078*/56-63-67	3196*/56-63-67	3239*/57-63-67	3283*/58-63-67
			3170**66-74-77	3198**69-78-80	3225**73-82-84
38	3143	3119*/56-64-69	3247*/58-65-69	3292*/58-65-69	3339*/59-65-69
			3226**66-74-77	3256**69-78-81	3284**73-82-84
36	3206	3159*/56-65-70	3298*/58-66-71	3346*/59-66-71	3394*/60-66-71
			3279**66-75-78	3311**69-78-81	3342**73-82-84
34	3264	3196*/56-66-71	3346*/59-68-72	3395*/60-68-72	3480*/61-68-72
			3331**66-75-78	3364**69-79-82	3396**73-82-85
32	3322	3232*/56-67-72	3392*/60-69-74	3477*/61-69-74	3530*/62-69-74
			3381**66-75-79	3418**69-79-82	3468**72-82-85
30	3369	3263*/56-67-73	3452*/61-70-75	3519*/62-70-75	3568*/63-70-75
			3428**66-76-79	3478**69-79-82	3514**72-83-85
28	3401	3286*/57-68-73	3497*/61-71-76	3546*/62-71-76	3595*/63-71-76
			3468**65-76-79	3508**69-79-83	3542**73-83-86
26	3401	3295*/57-68-73	3503*/61-71-76	3553*/62-71-76	3602*/63-71-76
			3475**66-76-80	3513**69-80-83	3547**73-84-86
24	3401	3304*/57-68-74	3510*/61-71-76	3559*/62-71-76	3608*/63-71-76
			3482**66-77-80	3518**70-80-83	3552**74-84-87
22	3401	3313*/58-69-74	3516*/61-71-76	3565*/62-71-76	3615*/63-71-76
			3488**67-77-81	3523**70-81-84	3557**74-85-87

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 190 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET

28L	24	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28L OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3401	3322*/58-69-74	3523*/62-71-76	3572*/62-71-76	3621*/63-71-76
			3493**67-78-81	3528**71-82-84	3561**75-85-88
18	3402	3331*/58-69-74	3529*/62-71-76	3579*/63-71-76	3628*/63-71-76
			3498**68-78-81	3533**71-82-85	3567**75-86-88
16	3402	3340*/59-69-74	3536*/62-71-76	3586*/63-71-76	3635*/63-71-76
			3503**68-79-82	3538**72-83-85	3572**76-86-89
14	3402	3349*/59-70-75	3543*/62-71-76	3592*/63-71-76	3642*/64-71-76
			3508**69-79-82	3543**72-83-86	3577**76-87-89
12	3402	3359*/59-70-75	3549*/62-71-76	3599*/63-71-76	3648*/64-71-76
			3513**69-80-83	3548**73-84-86	3581**77-88-90
10	3403	3368*/60-70-75	3556*/62-71-76	3606*/63-71-76	3655*/64-71-76
			3519**70-80-83	3553**73-84-87	3586**77-88-90
8	3403	3378*/60-70-75	3563*/62-71-76	3613*/63-71-76	3663*/64-71-76
			3524**70-81-84	3558**74-85-87	3592**78-89-91
6	3404	3388*/60-71-75	3570*/62-71-76	3620*/63-71-76	3670*/64-71-76
			3529**71-81-84	3564**74-85-88	3596**78-89-91
4	3404	3397*/61-71-76	3577*/62-71-76	3627*/63-71-76	3677*/64-71-76
			3535**71-82-85	3569**75-86-88	3602**79-90-92
2	3404	3404*/61-71-76	3584*/62-71-76	3634*/63-71-76	3684*/64-71-76
		3406**61-71-76	3540**72-83-85	3574**75-87-89	3607**79-91-92
0	3404	3404*/60-71-76	3591*/62-71-76	3641*/63-71-76	3691*/64-71-76
		3411**61-72-76	3545**72-83-86	3580**76-87-89	3612**80-91-93
-2	3405	3405*/60-71-76	3598*/62-71-76	3648*/63-71-76	3698*/64-71-76
		3419**62-72-77	3550**73-84-86	3585**76-88-90	3617**80-92-94
-4	3405	3415*/60-71-76	3605*/63-71-76	3655*/63-71-76	3704*/64-71-76
		3427**62-73-77	3555**73-84-87	3589**77-88-90	3621**81-93-94
-6	3405	3430*/60-71-76	3612*/63-71-76	3662*/64-71-76	3711*/64-71-76
		3435**63-73-77	3561**74-85-87	3594**78-89-91	3626**81-93-95
-8	3405	3445*/60-71-76	3619*/63-71-76	3669*/64-71-76	3719*/64-71-76
		3443**63-74-78	3566**74-86-88	3599**78-90-92	3630**82-94-95
-10	3405	3459*/60-71-76	3626*/63-71-76	3676*/64-71-76	3726*/65-71-76
		3451**64-74-78	3571**75-86-88	3604**79-90-92	3635**83-94-96

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 190 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
28L	24	272	0						

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28R OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
DATED 25-APR-2018

777-200LR GE90-110B1L

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2431	2770F/41-45-49	2952F/42-45-49	3015F/43-45-49	3080F/43-45-49
		2565**55-65-66	2587**62-69-70	2587**63-69-70	2587**63-69-70
58A	2484	2805F/43-47-51	2989F/44-47-51	3053F/44-47-51	3119F/45-47-51
		2612**55-65-67	2641**64-71-72	2641**64-71-72	2641**65-71-72
56A	2546	2847F/44-48-52	3033F/45-48-52	3098F/46-48-52	3164F/46-48-52
		2666**55-65-67	2704**65-73-74	2704**66-73-74	2704**66-73-74
54A	2609	2888F/46-50-54	3076F/47-50-54	3142F/48-50-54	3209F/48-50-54
		2722**55-66-68	2770**65-75-76	2770**67-75-76	2770**68-75-76
52A	2667	2927F/47-52-56	3118F/49-52-56	3184F/49-52-56	3251F/49-52-56
		2774**55-66-68	2830**65-76-77	2833**69-77-78	2833**69-77-78
50	2729	2968F/49-54-58	3160F/50-54-58	3227F/51-54-58	3297F/51-54-58
		2828**55-67-69	2888**65-77-78	2899**69-79-80	2899**71-79-80
48	2799	3011F/50-56-60	3207F/52-56-60	3275F/52-56-60	3347F/53-56-60
		2888**55-67-70	2952**65-77-79	2970**69-81-82	2973**72-81-82
46	2874	3057F/51-58-62	3255F/53-58-62	3326F/54-58-62	3400F/54-58-62
		2952**55-67-70	3021**65-77-79	3040**69-81-82	3055**72-84-85
44	2946	3101F/52-60-64	3303F/54-60-64	3376F/55-60-64	3488F/56-60-64
		3013**54-68-71	3086**65-78-80	3108**69-81-83	3127**72-85-86
42	3012	3143F/53-61-66	3350F/55-61-66	3436F/56-61-66	3534F/57-61-66
		3069**54-68-71	3146**65-78-80	3169**69-82-83	3190**72-85-87
40	3078	3185F/54-63-67	3396F/56-63-67	3506F/57-63-67	3580F/58-63-67
		3125**54-69-72	3204**65-79-81	3228**69-82-84	3251**72-86-87
38	3143	3224F/55-65-69	3466F/58-65-69	3549F/58-65-69	3624F/59-65-69
		3180**54-69-73	3263**65-79-81	3289**68-82-84	3313**72-86-88
36	3206	3264F/55-66-71	3518F/58-66-71	3592F/59-66-71	3667F/60-66-71
		3232**54-69-73	3320**65-79-82	3347**68-83-85	3373**72-86-88
34	3264	3300F/54-68-72	3556F/59-68-72	3631F/60-68-72	3707F/61-68-72
		3280**54-70-74	3373**65-80-83	3402**68-83-86	3441**72-86-88
32	3322	3337F/54-69-74	3594F/60-69-74	3670F/61-69-74	3747F/62-69-74
		3329**54-70-74	3432**64-80-83	3477**68-83-86	3508**71-87-89
30	3369	3368F/54-70-75	3626F/61-70-75	3702F/62-70-75	3780F/63-70-75
			3490**64-80-83	3521**68-84-86	3551**71-87-89
28	3401	3393F/54-71-75	3651F/61-71-76	3728F/62-71-76	3787F/63-71-76
			3518**64-81-83	3549**68-84-87	3579**72-87-90
26	3401	3403F/54-71-76	3661F/61-71-76	3739F/62-71-76	3787F/63-71-76
			3523**65-81-84	3554**68-85-87	3583**72-88-90
24	3401	3415F/55-71-76	3672F/61-71-76	3750F/62-71-76	3787F/63-71-76
		3406**55-72-76	3528**65-82-84	3558**69-85-87	3587**73-89-91
22	3401	3434F/55-71-76	3683F/61-71-76	3761F/62-71-76	3787F/63-71-76
		3411**55-72-76	3532**66-82-85	3563**69-86-88	3592**73-89-91

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY

RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET

28R NONE

ENG-OUT PROCEDURE:

NONE

ELEVATION 1761 FT

RUNWAY 28R OPIS

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF ISLAMABAD (NEW AIR
ISLAMABAD
777-200LR GE90-110B1L DATED 25-APR-2018

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
20	3401	3453F/56-71-76	3694F/62-71-76	3772F/62-71-76	3787F/63-71-76
		3419**55-72-77	3537**66-83-85	3567**70-86-88	3596**74-90-92
18	3402	3472F/56-71-76	3705F/62-71-76	3784F/63-71-76	3787F/63-71-76
		3426**56-73-77	3542**67-83-86	3572**70-87-89	3601**74-90-92
16	3402	3489F/57-71-76	3716F/62-71-76	3787F/63-71-76	3787F/63-71-76
		3433**56-73-77	3546**67-84-86	3577**71-87-89	3605**75-91-92
14	3402	3499F/58-71-76	3728F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3440**57-74-78	3551**68-84-87	3581**71-88-90	3610**75-91-93
12	3402	3510F/58-71-76	3739F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3447**57-74-78	3556**68-85-87	3586**72-88-90	3614**76-92-93
10	3403	3520F/59-71-76	3751F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3455**57-75-79	3561**69-85-88	3591**72-89-91	3619**76-92-94
8	3403	3531F/59-71-76	3763F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3462**58-75-79	3566**69-86-88	3595**73-89-91	3623**77-93-95
6	3404	3542F/59-71-76	3775F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3469**58-76-79	3571**70-86-88	3600**73-90-92	3628**77-94-95
4	3404	3552F/59-71-76	3786F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3477**59-76-80	3576**70-87-89	3605**74-90-92	3632**78-94-96
2	3404	3563F/59-71-76	3787F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3484**59-77-80	3581**71-87-89	3610**75-91-93	3636**78-95-96
0	3404	3574F/59-71-76	3787F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3489**59-77-80	3585**71-88-90	3614**75-92-93	3641**79-95-97
-2	3405	3585F/60-71-76	3787F/62-71-76	3787F/63-71-76	3787F/64-71-76
		3494**60-78-81	3590**72-88-90	3619**76-92-94	3645**80-96-97
-4	3405	3596F/60-71-76	3787F/63-71-76	3787F/63-71-76	3787F/64-71-76
		3499**60-78-81	3594**72-89-91	3623**76-93-94	3650**80-97-98
-6	3405	3608F/60-71-76	3787F/63-71-76	3787F/64-71-76	3787F/64-71-76
		3504**61-79-82	3599**73-90-92	3627**77-93-95	3654**81-97-98
-8	3405	3619F/60-71-76	3787F/63-71-76	3787F/64-71-76	3787F/64-71-76
		3509**61-79-82	3604**73-90-92	3632**77-94-95	3658**81-98-99
-10	3405	3631F/60-71-76	3787F/63-71-76	3787F/64-71-76	3787F/65-71-76
		3514**62-80-83	3608**74-91-93	3636**78-95-96	3661**82-98-99

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 3658 M LONG WITH 1000 M OF CLEARWAY AND 0 M OF STOPWAY
RUNWAY SLOPES ARE -1.00 PERCENT FOR TODA AND -1.00 PERCENT FOR ASDA
LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M
RUNWAY HT DIST OFFSET HT DIST OFFSET HT DIST OFFSET
28R NONE
ENG-OUT PROCEDURE:
NONE

ELEVATION 62 FT RUNWAY 12L OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2591	2593*/48-50-54	2658*/49-50-54	2679*/49-50-54	2699*/49-50-54
		2641**59-63-65	2731**65-69-71	2756**69-74-75	2756**69-74-75
58A	2648	2648*/49-51-55	2713*/50-51-55	2735*/51-51-55	2756*/51-51-55
		2692**61-65-67	2783**67-72-73	2811**70-76-77	2814**71-76-77
56A	2714	2714*/53-53-57	2778*/52-53-57	2800*/52-53-57	2822*/53-53-57
		2751**62-67-69	2843**68-72-74	2872**71-76-78	2880**72-78-79
54	2783	2779*/55-55-59	2844*/54-55-59	2866*/54-55-59	2889*/54-55-59
		2811**64-68-71	2906**69-73-75	2936**72-77-79	2951**74-80-81
52	2859	2850*/57-57-61	2915*/55-57-61	2939*/56-57-61	2962*/56-57-61
		2879**64-68-71	2977**70-74-76	3009**73-78-80	3033**77-83-84
50	2934	2919*/59-59-63	2984*/57-59-63	3009*/57-59-63	3033*/58-59-63
		2946**69-69-72	3047**72-76-78	3079**75-79-81	3108**79-84-86
48	3011	2990*/61-61-65	3056*/58-61-66	3081*/59-61-66	3107*/59-61-66
		3014**67-70-73	3117**73-77-79	3150**76-80-82	3180**80-85-87
46	3085	3057*/62-62-67	3123*/59-63-68	3150*/60-63-68	3176*/60-63-68
		3080**68-72-75	3185**75-79-82	3219**76-81-83	3252**81-86-87
44	3156	3122*/64-64-69	3189*/60-65-69	3216*/61-65-69	3243*/62-65-69
		3142**68-72-75	3251**76-80-82	3288**78-83-85	3324**82-87-88
42	3226	3187*/66-66-70	3253*/62-67-71	3282*/62-67-71	3311*/63-67-71
		3202**68-71-75	3317**77-80-83	3356**79-84-86	3392**83-88-89
40	3295	3249*/67-67-72	3317*/63-69-73	3347*/63-69-73	3377*/64-69-73
		3259**68-70-75	3383**78-81-84	3428**80-84-86	3488**83-88-90
38	3361	3307*/67-69-73	3376*/64-70-75	3408*/64-70-75	3452*/65-70-75
		3308**68-70-74	3461**77-81-84	3510**81-85-87	3549**84-89-90
36	3433	3358B/66-70-75	3449*/64-71-76	3491*/65-71-76	3521*/66-71-76
			3526**77-80-83	3569**81-84-87	3606**84-89-91
34	3501	3402B/65-71-76	3510*/64-72-76	3542*/65-72-76	3573*/66-72-76
			3577**77-80-83	3622**81-85-87	3661**84-89-91
32	3527	3430B/65-71-76	3534*/65-72-77	3567*/65-72-77	3598*/66-72-77
			3599**77-80-83	3646**81-85-88	3686**84-90-92
30	3527	3438B/66-71-76	3538*/65-72-77	3570*/66-72-77	3602*/66-72-77
			3605**77-80-84	3652**81-85-88	3691**85-90-92
28	3528	3446B/66-71-76	3541*/65-72-77	3573*/66-72-77	3605*/66-72-77
			3610**78-81-84	3657**82-86-89	3696**85-91-93
26	3529	3454B/66-71-76	3545*/65-72-77	3577*/66-72-77	3608*/66-72-77
			3616**78-81-85	3662**82-87-89	3702**86-91-93
24	3530	3462B/67-71-76	3548*/65-72-77	3580*/66-72-77	3611*/67-72-77
			3622**79-82-85	3667**83-87-90	3707**86-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 510 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4050 M LONG WITH 60 M OF CLEARWAY AND 126 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12L	34	576	0	59	982	0	54	984	0
	104	1538	0	280	15160	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 12L OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3530	3470B/67-71-76	3551*/65-72-77	3583*/66-72-77	3615*/67-72-77
			3628**80-83-86	3673**83-88-90	3712**87-92-94
20	3531	3477B/68-71-76	3554*/65-72-77	3586*/66-72-77	3618*/67-72-77
		3478**68-72-77	3634**80-83-86	3678**84-88-91	3717**88-93-95
18	3532	3484B/68-71-76	3558*/65-72-77	3590*/66-72-77	3621*/67-72-77
		3486**68-73-77	3639**81-84-87	3684**84-89-91	3722**88-94-95
16	3532	3490B/69-71-76	3561*/65-72-77	3593*/66-72-77	3624*/67-72-77
		3492**69-73-77	3645**81-85-87	3689**85-89-92	3727**89-94-96
14	3533	3495B/69-71-76	3564*/65-72-77	3596*/66-72-77	3627*/67-72-77
		3497**69-73-78	3651**82-86-88	3695**85-90-92	3733**89-95-97
12	3534	3500B/70-71-76	3568*/66-72-77	3600*/66-72-77	3630*/67-72-77
		3503**70-73-78	3656**82-86-89	3700**86-91-93	3738**90-95-97
10	3535	3505B/70-72-76	3571*/66-72-77	3603*/66-72-77	3634*/67-72-77
		3509**70-74-78	3662**83-87-89	3706**87-91-93	3743**90-96-98
8	3536	3510*/71-72-76	3574*/66-72-77	3606*/66-72-77	3637*/67-72-77
		3515**71-75-79	3667**84-87-90	3711**87-92-94	3748**91-97-98
6	3536	3513B/72-72-76	3577*/66-72-77	3609*/67-72-77	3640*/67-72-77
		3520**71-75-79	3673**84-88-90	3716**88-92-94	3753**91-97-99
4	3537	3516*/72-72-77	3580*/66-72-77	3612*/67-72-77	3642*/67-72-77
		3526**72-76-80	3678**85-89-91	3722**88-93-95	3758**92-98-99
2	3537	3518*/72-72-77	3583*/66-72-77	3615*/67-72-77	3645*/67-72-77
		3532**72-76-80	3683**85-89-92	3727**89-94-95	3763**93-99-00
0	3537	3521*/72-72-77	3586*/66-72-77	3617*/67-72-77	3648*/68-72-77
		3537**73-77-81	3689**86-90-92	3732**89-94-96	3767**93-99-01
-2	3537	3524*/72-72-77	3589*/66-72-77	3620*/67-72-77	3650*/68-72-77
		3543**74-77-81	3693**86-91-93	3737**90-95-97	3772**94-00-01
-4	3538	3526*/72-72-77	3591*/66-72-77	3622*/67-72-77	3653*/68-72-77
		3549**74-78-82	3698**87-91-94	3742**90-96-97	3777**94-01-02
-6	3538	3529*/72-72-77	3594*/66-72-77	3625*/67-72-77	3655*/68-72-77
		3555**75-78-82	3703**87-92-94	3746**91-96-98	3781**95-01-02
-8	3538	3531*/72-72-77	3597*/66-72-77	3628*/67-72-77	3658*/68-72-77
		3560**75-78-82	3708**88-93-95	3751**91-97-98	3782**95-02-03
-10	3538	3534*/72-72-77	3599*/66-72-77	3630*/67-72-77	3660*/68-72-77
		3566**76-79-82	3713**88-93-95	3755**92-97-99	3782**94-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 510 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4050 M LONG WITH 60 M OF CLEARWAY AND 126 M OF STOPWAY

RUNWAY SLOPES ARE 0.16 PERCENT FOR TODA AND 0.16 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12L	34	576	0	59	982	0	54	984	0
	104	1538	0	280	15160	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 62 FT RUNWAY 12R OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2591	2663*/48-50-54	2720*/49-50-54	2738*/49-50-54	2756*/50-50-54
		2744**67-72-73	2756**69-74-75	2756**69-74-75	2756**70-74-75
58A	2648	2719*/49-51-55	2778*/50-51-55	2797*/51-51-55	2815*/51-51-55
		2797**68-73-74	2814**70-76-77	2814**71-76-77	2814**71-76-77
56A	2714	2784*/51-53-57	2845*/52-53-57	2864*/53-53-57	2883*/53-53-57
		2858**69-74-75	2880**72-78-79	2880**72-78-79	2880**73-78-79
54	2783	2849*/52-55-59	2913*/54-55-59	2933*/54-55-59	2953*/55-55-59
		2921**70-74-76	2951**73-80-81	2951**74-80-81	2951**74-80-81
52	2859	2921*/54-57-61	2987*/55-57-61	3008*/56-57-61	3028*/56-57-61
		2993**71-75-77	3033**75-83-84	3033**76-83-84	3033**76-83-84
50	2934	2990*/55-59-63	3059*/57-59-63	3081*/57-59-63	3102*/58-59-63
		3060**71-76-78	3113**77-85-86	3113**78-85-86	3113**78-85-86
48	3011	3062*/56-61-66	3134*/58-61-66	3156*/59-61-66	3178*/59-61-66
		3126**71-76-78	3183**77-86-87	3192**79-87-89	3192**80-87-89
46	3085	3130*/58-63-68	3205*/60-63-68	3228*/60-63-68	3251*/61-63-68
		3188**71-76-79	3253**77-86-88	3272**81-90-91	3272**82-90-91
44	3156	3195*/59-65-69	3273*/61-65-69	3299*/62-65-69	3323*/62-65-69
		3242**69-75-78	3322**78-86-88	3355**83-92-93	3355**83-92-93
42	3226	3259*/60-67-71	3343*/62-67-71	3369*/63-67-71	3395*/63-67-71
		3296**68-75-78	3388**78-87-89	3441**84-93-94	3441**84-93-94
40	3295	3323*/61-69-73	3410*/63-69-73	3450*/64-69-73	3483*/65-69-73
		3350**67-74-78	3483**78-88-89	3522**83-93-95	3528**85-95-96
38	3361	3382*/62-70-75	3494*/64-70-75	3521*/65-70-75	3546*/66-70-75
		3400**65-74-78	3544**78-88-90	3579**82-93-94	3601**86-97-98
36	3433	3457*/62-71-76	3555*/65-71-76	3582*/66-71-76	3609*/66-71-76
		3468**64-74-78	3599**77-88-90	3634**81-93-94	3663**86-97-98
34	3501	3515*/62-72-76	3608*/65-72-76	3637*/65-72-76	3664*/66-72-76
		3519**63-73-78	3649**76-88-90	3685**80-92-94	3716**85-97-98
32	3527	3539*/63-72-77	3633*/65-72-77	3662*/66-72-77	3691*/67-72-77
		3540**63-74-78	3672**76-88-90	3710**80-93-95	3741**85-97-98
30	3527	3543*/63-72-77	3636*/65-72-77	3665*/66-72-77	3693*/67-72-77
		3546**63-74-78	3678**76-89-91	3715**81-93-95	3746**85-98-99
28	3528	3546*/63-72-77	3639*/65-72-77	3668*/66-72-77	3696*/67-72-77
		3551**64-75-79	3683**77-89-91	3720**81-94-96	3751**86-98-00
26	3529	3549*/63-72-77	3642*/65-72-77	3671*/66-72-77	3699*/67-72-77
		3557**64-75-79	3689**77-90-92	3725**82-94-96	3756**87-99-00
24	3530	3553*/63-72-77	3645*/65-72-77	3674*/66-72-77	3702*/67-72-77
		3562**65-76-80	3694**78-90-92	3731**82-95-97	3761**87-99-01

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 670 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4315 M LONG WITH 60 M OF CLEARWAY AND 189 M OF STOPWAY

RUNWAY SLOPES ARE 0.35 PERCENT FOR TODA AND 0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12R	26	655	0	32	658	0	67	1387	0
	72	1448	0	304	13162	0	363	21346	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 12R OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3530	3556*/63-72-77	3648*/66-72-77	3677*/66-72-77	3705*/67-72-77
		3568**65-76-80	3699**78-91-93	3735**83-96-97	3766**88-00-01
20	3531	3559*/63-72-77	3651*/66-72-77	3680*/66-72-77	3707*/67-72-77
		3573**66-77-81	3704**79-91-93	3740**84-96-98	3771**89-01-02
18	3532	3563*/63-72-77	3654*/66-72-77	3683*/66-72-77	3710*/67-72-77
		3579**66-77-81	3710**80-92-94	3745**84-97-98	3774**89-01-02
16	3532	3566*/63-72-77	3657*/66-72-77	3685*/67-72-77	3713*/67-72-77
		3584**67-78-81	3715**80-93-95	3750**85-98-99	3775**90-01-02
14	3533	3569*/63-72-77	3660*/66-72-77	3688*/67-72-77	3716*/67-72-77
		3590**67-78-82	3720**81-93-95	3755**86-98-00	3776**90-01-02
12	3534	3573*/63-72-77	3663*/66-72-77	3691*/67-72-77	3719*/68-72-77
		3596**68-79-82	3726**81-94-96	3761**86-99-00	3777**90-01-02
10	3535	3576*/64-72-77	3666*/66-72-77	3694*/67-72-77	3721*/68-72-77
		3602**68-79-83	3732**82-94-96	3766**87-99-01	3778**90-01-02
8	3536	3579*/64-72-77	3669*/66-72-77	3697*/67-72-77	3724*/68-72-77
		3608**69-80-83	3737**83-95-97	3771**87-00-01	3779**90-01-03
6	3536	3582*/64-72-77	3672*/66-72-77	3700*/67-72-77	3727*/68-72-77
		3614**69-80-84	3742**83-96-97	3776**88-01-02	3779**90-01-03
4	3537	3585*/64-72-77	3674*/66-72-77	3702*/67-72-77	3729*/68-72-77
		3619**70-81-84	3747**84-96-98	3780**89-01-03	3780**90-01-03
2	3537	3588*/64-72-77	3677*/66-72-77	3704*/67-72-77	3731*/68-72-77
		3625**70-82-85	3752**85-97-99	3780**90-01-03	3780**90-01-03
0	3537	3591*/64-72-77	3679*/66-72-77	3707*/67-72-77	3733*/68-72-77
		3630**71-82-85	3757**85-98-99	3781**90-01-03	3781**91-01-03
-2	3537	3593*/64-72-77	3681*/67-72-77	3709*/67-72-77	3735*/68-72-77
		3636**72-83-86	3762**86-99-00	3781**90-01-03	3781**91-01-03
-4	3538	3596*/64-72-77	3683*/67-72-77	3711*/67-72-77	3737*/68-72-77
		3642**72-83-86	3767**87-99-00	3781**90-01-03	3781**91-01-03
-6	3538	3598*/64-72-77	3686*/67-72-77	3713*/67-72-77	3739*/68-72-77
		3647**73-84-87	3772**87-00-01	3782**90-01-03	3782**91-01-03
-8	3538	3601*/64-72-77	3688*/67-72-77	3715*/68-72-77	3741*/68-72-77
		3653**73-85-87	3777**88-01-02	3782**90-02-03	3782**91-02-03
-10	3538	3603*/64-72-77	3690*/67-72-77	3717*/68-72-77	3743*/68-72-77
		3659**74-85-88	3781**89-01-02	3782**90-02-03	3782**91-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 680 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4315 M LONG WITH 60 M OF CLEARWAY AND 189 M OF STOPWAY

RUNWAY SLOPES ARE 0.35 PERCENT FOR TODA AND 0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
12R	26	655	0	32	658	0	67	1387	0
	72	1448	0	304	13162	0	363	21346	0

ENG-OUT PROCEDURE:
NONE

ELEVATION 62 FT RUNWAY 30L OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2591	2605*/47-50-54	2670*/48-50-54	2687*/48-50-54	2704*/49-50-54
		2653**59-63-66	2742**66-72-73	2756**68-74-75	2756**69-74-75
58A	2648	2658*/48-51-55	2727*/49-51-55	2746*/50-51-55	2764*/50-51-55
		2704**60-65-67	2795**67-72-74	2814**70-76-77	2814**70-76-77
56A	2714	2720*/50-53-57	2792*/51-53-57	2813*/51-53-57	2831*/52-53-57
		2762**62-67-69	2855**68-73-75	2880**72-78-79	2880**72-78-79
54	2783	2783*/51-55-59	2857*/53-55-59	2881*/53-55-59	2900*/54-55-59
		2823**64-68-71	2918**69-74-76	2946**74-79-80	2951**73-80-81
52	2859	2859*/55-57-61	2929*/54-57-61	2954*/55-57-61	2975*/55-57-61
		2892**64-69-72	2990**70-75-77	3020**75-80-81	3033**75-83-84
50	2934	2933*/59-59-63	2998*/56-59-63	3023*/56-59-63	3048*/57-59-63
		2958**66-70-73	3059**71-76-78	3091**76-81-82	3113**78-85-86
48	3011	3004*/61-61-65	3069*/57-61-66	3095*/58-61-66	3121*/58-61-66
		3027**67-71-74	3129**73-78-80	3162**77-82-83	3190**81-87-88
46	3085	3071*/63-63-67	3136*/58-63-68	3163*/59-63-68	3190*/60-63-68
		3092**68-72-75	3198**75-80-82	3232**78-83-84	3262**82-88-89
44	3156	3136*/64-64-69	3201*/59-65-69	3230*/60-65-69	3258*/61-65-69
		3156**70-74-77	3265**77-82-84	3302**78-83-85	3336**83-89-90
42	3226	3200*/66-66-71	3265*/61-67-71	3295*/61-67-71	3325*/62-67-71
		3215**68-71-75	3331**77-82-84	3370**80-85-87	3405**84-89-91
40	3295	3263*/67-68-72	3329*/62-69-73	3361*/62-69-73	3392*/63-69-73
		3267**67-70-74	3397**78-82-85	3451**80-85-87	3500**84-90-91
38	3361	3314B/65-69-74	3388*/63-70-75	3426*/63-70-75	3472*/64-70-75
			3481**77-81-84	3525**81-86-88	3564**85-91-92
36	3433	3363B/64-70-75	3466*/63-71-76	3504*/64-71-76	3535*/65-71-76
			3534**76-80-83	3578**80-85-88	3618**84-91-92
34	3501	3408B/63-71-76	3522*/63-72-76	3555*/64-72-76	3587*/65-72-76
			3581**75-80-83	3626**79-85-88	3669**84-90-92
32	3527	3438B/63-71-76	3546*/63-72-77	3580*/64-72-77	3612*/65-72-77
			3603**75-80-84	3650**79-85-88	3693**83-90-93
30	3527	3446B/63-71-76	3550*/63-72-77	3583*/64-72-77	3616*/65-72-77
			3609**75-81-84	3655**80-86-89	3698**84-91-93
28	3528	3455B/64-71-76	3553*/64-72-77	3587*/64-72-77	3619*/65-72-77
			3614**76-81-84	3661**80-86-89	3703**85-92-94
26	3529	3463B/64-71-76	3557*/64-72-77	3590*/65-72-77	3623*/65-72-77
			3620**76-82-85	3666**81-87-90	3709**85-92-94
24	3530	3470B/65-71-76	3560*/64-72-77	3594*/65-72-77	3626*/65-72-77
			3626**77-82-85	3672**81-88-90	3714**86-93-95

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG

MINIMUM FLAP RETRACTION HEIGHT IS 490 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4447 M LONG WITH 60 M OF CLEARWAY AND 235 M OF STOPWAY

RUNWAY SLOPES ARE -0.35 PERCENT FOR TODA AND -0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30L	20	547	0	65	1346	0	140	1558	0
	155	3214	0	324	6146	0			

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 30L OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
22	3530	3478B/65-71-76	3564*/64-72-77	3597*/65-72-77	3630*/66-72-77
			3632**77-83-86	3678**82-88-91	3720**86-94-95
20	3531	3485B/65-71-76	3567*/64-72-77	3601*/65-72-77	3633*/66-72-77
			3638**78-84-87	3683**82-89-91	3726**87-94-96
18	3532	3491B/66-71-76	3571*/64-72-77	3604*/65-72-77	3636*/66-72-77
			3644**79-84-87	3689**83-89-92	3731**88-95-96
16	3532	3497B/66-71-76	3574*/64-72-77	3607*/65-72-77	3640*/66-72-77
			3650**79-85-88	3695**84-90-92	3736**88-95-97
14	3533	3502B/67-71-76	3578*/64-72-77	3611*/65-72-77	3643*/66-72-77
			3656**80-85-88	3701**84-91-93	3742**89-96-98
12	3534	3508B/68-72-76	3582*/64-72-77	3615*/65-72-77	3647*/66-72-77
		3509**67-73-78	3662**80-86-89	3707**85-91-93	3747**90-97-98
10	3535	3513B/68-72-76	3585*/64-72-77	3618*/65-72-77	3650*/66-72-77
		3515**68-73-78	3667**81-87-89	3712**85-92-94	3753**90-98-99
8	3536	3519B/69-72-77	3589*/64-72-77	3622*/65-72-77	3654*/66-72-77
		3521**69-74-78	3673**82-87-90	3718**86-93-95	3758**91-98-00
6	3536	3524B/69-72-77	3592*/65-72-77	3625*/65-72-77	3657*/66-72-77
		3527**69-74-78	3679**82-88-90	3724**87-93-95	3763**92-99-00
4	3537	3529B/70-72-77	3595*/65-72-77	3628*/66-72-77	3660*/66-72-77
		3532**70-75-79	3685**83-88-91	3730**87-94-96	3769**92-00-01
2	3537	3534B/70-72-77	3598*/65-72-77	3631*/66-72-77	3663*/66-72-77
		3538**70-75-79	3691**83-89-91	3735**88-95-96	3774**93-00-02
0	3537	3537*/70-72-77	3602*/65-72-77	3634*/66-72-77	3666*/66-72-77
		3544**71-76-80	3697**84-90-92	3741**89-95-97	3779**94-01-02
-2	3537	3537*/70-72-77	3605*/65-72-77	3637*/66-72-77	3669*/67-72-77
		3549**71-76-80	3703**85-90-93	3746**89-96-98	3781**94-01-03
-4	3538	3538*/69-72-77	3607*/65-72-77	3640*/66-72-77	3671*/67-72-77
		3555**72-77-81	3708**85-91-93	3751**90-97-98	3781**93-01-03
-6	3538	3538*/69-72-77	3610*/65-72-77	3643*/66-72-77	3672*/67-72-77
		3561**73-78-81	3714**86-92-94	3756**91-98-99	3782**93-01-03
-8	3538	3538*/68-72-77	3613*/65-72-77	3646*/66-72-77	3673*/67-72-77
		3567**73-78-82	3720**87-93-95	3762**92-98-00	3782**92-02-03
-10	3538	3538*/68-72-77	3616*/65-72-77	3648*/66-72-77	3674*/67-72-77
		3573**74-79-82	3725**87-93-95	3767**92-99-00	3782**92-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 490 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,
*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4447 M LONG WITH 60 M OF CLEARWAY AND 235 M OF STOPWAY

RUNWAY SLOPES ARE -0.35 PERCENT FOR TODA AND -0.35 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30L	20	547	0	65	1346	0	140	1558	0
	155	3214	0	324	6146	0			

ENG-OUT PROCEDURE:
NONE

ELEVATION 62 FT RUNWAY 30R OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
60A	2591	2580*/49-49-53	2637*/48-50-54	2657*/49-50-54	2677*/49-50-54
		2655**65-71-72	2735**68-74-75	2756**69-74-75	2756**69-74-75
58A	2648	2635*/51-51-55	2694*/50-51-55	2714*/50-51-55	2734*/50-51-55
		2707**66-72-74	2788**70-75-76	2814**70-76-77	2814**70-76-77
56A	2714	2698*/53-53-57	2758*/51-53-57	2779*/52-53-57	2800*/52-53-57
		2767**68-74-76	2849**71-77-78	2876**72-78-79	2880**72-78-79
54	2783	2763*/54-54-59	2825*/53-55-59	2846*/54-55-59	2867*/54-55-59
		2829**69-75-77	2914**73-79-80	2942**74-80-81	2951**74-80-81
52	2859	2835*/56-56-61	2897*/55-57-61	2920*/55-57-61	2941*/56-57-61
		2900**70-76-77	2988**75-81-82	3016**76-82-83	3033**75-83-84
50	2934	2906*/58-58-63	2968*/56-59-63	2991*/57-59-63	3013*/57-59-63
		2968**70-76-78	3059**77-83-85	3088**78-84-85	3113**79-85-86
48	3011	2979*/60-60-65	3041*/57-61-66	3064*/58-61-66	3087*/59-61-66
		3036**71-76-78	3130**79-85-87	3161**81-86-88	3191**82-87-89
46	3085	3047*/62-62-67	3110*/59-63-68	3134*/59-63-68	3158*/60-63-68
		3103**72-77-79	3201**80-86-88	3232**82-88-90	3263**84-90-91
44	3156	3114*/64-64-68	3177*/60-65-69	3202*/61-65-69	3226*/61-65-69
		3161**70-74-78	3270**81-87-88	3304**84-90-92	3338**85-91-93
42	3226	3180*/65-65-70	3242*/61-67-71	3268*/62-67-71	3294*/62-67-71
		3212**69-74-78	3337**81-87-88	3373**86-92-93	3407**87-93-94
40	3295	3243*/67-67-72	3307*/62-69-73	3334*/63-69-73	3361*/64-69-73
		3264**67-74-77	3398**80-85-87	3457**83-89-91	3504**87-94-95
38	3361	3302B/67-68-73	3368*/63-70-75	3396*/64-70-75	3430*/65-70-75
		3313**66-75-79	3473**78-83-85	3523**82-87-89	3565**86-92-93
36	3433	3356B/65-70-75	3438*/64-71-76	3476*/64-71-76	3505*/65-71-76
		3364**65-75-79	3528**77-83-86	3575**81-87-89	3620**85-91-93
34	3501	3405B/64-71-76	3503*/63-72-76	3532*/64-72-76	3560*/65-72-76
		3411**64-75-79	3576**76-83-86	3623**80-86-89	3670**84-90-92
32	3527	3435B/64-71-76	3528*/64-72-77	3557*/65-72-77	3585*/66-72-77
		3444**64-75-79	3598**76-83-86	3646**80-86-89	3694**84-91-93
30	3527	3441B/64-71-76	3531*/64-72-77	3559*/65-72-77	3588*/66-72-77
		3451**64-76-80	3604**76-84-87	3652**80-87-90	3699**85-91-93
28	3528	3447B/65-71-76	3533*/64-72-77	3562*/65-72-77	3590*/66-72-77
		3458**64-76-80	3609**77-84-87	3657**81-88-90	3705**85-92-94
26	3529	3452B/65-71-76	3536*/64-72-77	3565*/65-72-77	3593*/66-72-77
		3465**65-76-81	3614**77-85-88	3663**82-88-91	3710**86-92-94

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4300 M LONG WITH 60 M OF CLEARWAY AND 126 M OF STOPWAY

RUNWAY SLOPES ARE -0.15 PERCENT FOR TODA AND -0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30R	3	127	0	13	219	0	15	231	0
	34	587	0	37	648	0	46	748	0
	55	926	0	56	935	0	72	1204	0
	75	1269	0	136	2640	0	215	3194	0

ENG-OUT PROCEDURE:

NONE

ELEVATION 62 FT RUNWAY 30R OMDB

*** FLAPS 15 *** AIR COND OFF ANTI-ICE OFF DUBAI
DUBAI DXB
777-200LR GE90-110B1L DATED 15-MAR-2019

A INDICATES OAT OUTSIDE ENVIRONMENTAL ENVELOPE

OAT CLIMB WIND COMPONENT IN KNOTS (MINUS DENOTES TAILWIND)

C	100KG	-10	0	10	20
24	3530	3458B/66-71-76	3538*/64-72-77	3567*/65-72-77	3595*/66-72-77
		3472**65-77-81	3620**78-85-88	3668**82-89-91	3716**87-93-95
22	3530	3463B/66-71-76	3541*/64-72-77	3570*/65-72-77	3598*/66-72-77
		3479**66-78-82	3625**78-86-89	3674**83-89-92	3721**87-94-96
20	3531	3469B/67-71-76	3544*/64-72-77	3572*/65-72-77	3600*/66-72-77
		3486**66-78-82	3631**79-87-89	3680**83-89-92	3727**88-94-96
18	3532	3474B/67-71-76	3546*/64-72-77	3575*/65-72-77	3603*/66-72-77
		3491**67-79-82	3636**80-87-90	3686**84-90-92	3733**88-95-97
16	3532	3478B/68-71-76	3549*/65-72-77	3577*/65-72-77	3605*/66-72-77
		3497**67-79-83	3642**80-88-91	3691**85-90-92	3738**89-96-97
14	3533	3483B/68-71-76	3551*/65-72-77	3580*/66-72-77	3608*/66-72-77
		3502**68-80-83	3648**81-88-91	3697**85-90-92	3743**90-96-98
12	3534	3488B/69-71-76	3554*/65-72-77	3583*/66-72-77	3611*/66-72-77
		3508**68-80-84	3654**81-89-91	3703**86-91-93	3749**90-97-99
10	3535	3492B/70-71-76	3557*/65-72-77	3585*/66-72-77	3613*/66-72-77
		3513**69-81-84	3659**82-89-91	3709**86-92-94	3754**91-98-99
8	3536	3495*/70-71-76	3559*/65-72-77	3588*/66-72-77	3616*/67-72-77
		3518**69-81-84	3665**83-89-91	3715**87-92-94	3760**92-98-00
6	3536	3497*/71-71-76	3561*/65-72-77	3590*/66-72-77	3618*/67-72-77
		3524**70-81-84	3671**83-89-92	3720**88-93-95	3765**92-99-00
4	3537	3499*/71-71-76	3564*/65-72-77	3592*/66-72-77	3620*/67-72-77
		3529**71-81-84	3677**84-90-92	3726**88-94-95	3770**93-00-01
2	3537	3501*/71-71-76	3566*/65-72-77	3594*/66-72-77	3622*/67-72-77
		3534**71-81-85	3682**84-90-92	3732**89-94-96	3776**94-01-02
0	3537	3503*/71-71-76	3568*/65-72-77	3596*/66-72-77	3624*/67-72-77
		3539**72-82-85	3688**85-90-93	3738**90-95-97	3780**94-01-02
-2	3537	3505*/71-71-76	3570*/65-72-77	3598*/66-72-77	3626*/67-72-77
		3544**72-82-86	3693**86-91-93	3742**90-96-98	3781**94-01-03
-4	3538	3507*/72-72-76	3572*/65-72-77	3600*/66-72-77	3628*/67-72-77
		3549**73-83-86	3699**86-92-94	3747**91-97-98	3781**94-01-03
-6	3538	3508*/72-72-76	3574*/66-72-77	3602*/66-72-77	3630*/67-72-77
		3554**74-84-87	3704**87-93-95	3752**92-98-99	3782**93-01-03
-8	3538	3510*/72-72-76	3576*/66-72-77	3604*/66-72-77	3632*/67-72-77
		3560**74-84-87	3710**88-94-95	3757**93-99-00	3782**93-02-03
-10	3538	3512*/72-72-76	3578*/66-72-77	3606*/67-72-77	3634*/67-72-77
		3565**75-85-88	3716**89-94-96	3763**93-00-01	3782**92-02-03

MAX BRAKE RELEASE WT MUST NOT EXCEED MAX CERT TAKEOFF WT OF 340194 KG
MINIMUM FLAP RETRACTION HEIGHT IS 400 FT

LIMIT CODE IS F=FIELD, T=TIRE SPEED, B=BRAKE ENERGY, V=VMCG,

*=OBSTACLE/LEVEL-OFF, **=IMPROVED CLIMB

RUNWAY IS 4300 M LONG WITH 60 M OF CLEARWAY AND 126 M OF STOPWAY

RUNWAY SLOPES ARE -0.15 PERCENT FOR TODA AND -0.15 PERCENT FOR ASDA

LINE-UP DISTANCES: 23 M FOR TODA, 49 M FOR ASDA OBS FROM LO-FT/M

RUNWAY	HT	DIST	OFFSET	HT	DIST	OFFSET	HT	DIST	OFFSET
30R	3	127	0	13	219	0	15	231	0
	34	587	0	37	648	0	46	748	0
	55	926	0	56	935	0	72	1204	0
	75	1269	0	136	2640	0	215	3194	0

ENG-OUT PROCEDURE:

NONE