Date:7/17/2024 Time:11:02 AM

FLT OPS / TECH / 76/Jul 17, 2024

To :
A320

Subject : L(R) OUTER (INNER) TK HI TEMP ECAM

Description

A number of cases of L(R) OUTER (INNER) TK HI TEMP indication have been reported on the ground and during flight. Crew **MAY** observe a large temperature increase for a period of 1 minute, after which it returns to normal.

Consequence

A high temperature ADISORY is displayed when the temp reaches 55 degrees Celsius in the outer tank and 45 degrees Celsius in the inner tank. If the temperature of the fuel increases above 60 degrees Celsius in the outer tank or 54 degrees Celsius in the inner tank, the **L(R) OUTER (INNER) TK HI TEMP** ECAM warning is displayed.

An ECAM message indicating "limited taxi time" is observed at the **ADVISORY** limit. “Limited taxi time” does not correspond to any time limit but an advisory that crew must not delay Take off as the temperature might increase where the takeoff has to be delayed (warning level temp).

At the high temperature ECAM **WARNING** level, a message advising to delay take off and to select the engine master on the affected side to off is displayed.

Investigation Status

It has been identified that one source of L(R) OUTER (INNER) TK HI TEMP indication is associated with high frequency (HF) electro-magnetic transmission. If HF transmission is occurring at the exact same time the temperature reading is read by the FQIC (which occurs once a minute) then there is a temporary increase in the fuel temperature measurement for all tanks. There is in some cases, an associated HI TEMP indication. The temperature indication then drops down to within limits on the refresh of the temperature data (after one minute). The High temperature indication has also been reported on aircraft that have ACARS fitted.

Date:7/17/2024 Time:11:02 AM

L(R) OUTER (INNER) TK HI TEMP indication has also been observed if the aircraft has been left to stand in direct sunlight with high ambient outside air temperatures. IDG cooling (with engines running) will also recirculate warm fuel into the outer wing tanks, increasing the outer cell temperature.

Ground tests have identified that this is applicable on all standards of FQIC. It has also identified that VHF transmissions can cause a limited increase in temperature.

Repercussion on A/C Dispatch

If the high fuel temperature reduces to within limits within 2 - 3 minutes then indication can be considered spurious and there are therefore no implications on aircraft dispatch. If however the high fuel temperature remains at a high level then restrictions on aircraft dispatch are as provided in the FCOM.

OPERATIONAL Information

If on taxi out a L(R) OUTER (INNER) TK HI TEMP is observed then this indication **could** be spurious and related to HF interference. In the event that this indication is seen, wait two minutes whilst the measurement is updated, to confirm the indication is spurious, before taking any further action. If the indication is spurious then the temperature will return to within normal limits following the next refresh of the Fuel Temperature reading.

It is possible in certain environmental conditions that the fuel in the outer cell can be heated to a temperature at which the **ADVISORY**/**WARNING** is triggered. In this situation the ECAM procedures are to be followed.

To reduce the load on the affected IDG and subsequently reducing the fuel temprature the crew can take the following Steps.

1. Reduce the electrical loads by shedding the Galley Power and reducing all unnecessary electrical loads like unnecessary cabin lights etc.
2. If one side is affected shed the Galley Power and switch of the ENG AC GEN of the affected side if other ENG GEN is available.
3. If APU is serviceable switch on the APU and shift all electrical loads on to APU GEN.

Date:7/17/2024 Time:11:02 AM

4. To reduce the risk of HI TEMP messages in hot ambient conditions it is suggested that the aircraft is fueled as late as possible prior to dispatch. Crew should coordinate/cooperate with Engineering in this aspect

July 17 2024
CAPT. VAQAS JAVED
Chief Pilot Technical
FLIGHT OPERATION

CC ----------

Chief Of Flight Operations
Chief Pilot Crew Training
Chief Pilot Standard Inspection
Chief Pilot Safety
General Manager Central Control
Dy. Chief Pilot A-320
Chief of Safety