BOMBARDIER CUSTOMER SERVICES BUSINESS AIRCRAFT

ADVISORY WIRE
AW700-28-0072, Rev. 5

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FROM: BOMBARDIER CUSTOMER SERVICES BUSINESS AIRCRAFT

ADVISORY WIRE

REFERENCE NO: AW700-28-0072, Rev. 5

SUBJECT: Centre Tank Fuel Transfer Pump

EFFECTIVITY: BD700-1A10 (9002 & Subs)
BD700-1A11 (9127 & subs)

ATA: 28-15

This Advisory Wire contains Operational and Maintenance Information

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1.0 REFERENCES:

1.1 Global Express (CSP700-1) and (CSP700-1A) Aircraft Flight Manual.
1.2 G5000 (CSP700-5000-1) Aircraft Flight Manual.
1.3 Service Bulletins 700-28-049, 700-28-050 and 700-1A11-28-005.

2.0 INTRODUCTION:

This Advisory Wires= Rev. 5 is to add FMQGC (-13) to the list of FMQGC (-10, -11) called in the previous Advisory Wire. Note that there is no functionality difference between the -11 and -13 FMQGC.

Note: Revision 3 of this Advisory Wire is still applicable to aircraft with the FMQGC -8/-9, pre-reference 1.3 SBs.

3.0 DESCRIPTION:

The reference 1.3 SBs introduced new FMQGC (-10/-11) software, which included upgraded logic to control the center transfer pump operation. The goal of this new logic was to eliminate the center transfer pump failure due to a priming issue and since the introduction of the Service Bulletin, the number of reported center transfer pump failures have been significantly reduced. However, some operators have reported that the centre transfer pump failed to produce pressure in flight, even though the pumps were submerged in fuel and running. This condition occurred when the pump failed to re-prime while the aircraft was climbing through the 30 000 to 40 000 feet range, and a few failures occurred in cruise. The pump failure to re-prime resulted in the display of “L(R) CTR XFER FAULT” or ”CTR FUEL XFER FAIL” EICAS messages, an amber centre transfer pump symbol and an empty flow tube on the fuel synoptic page.

In most cases, the pump recovered, producing sufficient pressure and the failure messages cleared. In some cases, however, the pump did not recover before the center tank fuel level dropped below the pumps shut down limit, approximately 700 Lbs. At this point, the Fuel Management Quantity Gauging Computer (FMQGC) logic commands the centre transfer pumps “OFF” and the EICAS “L(R) CTR XFER FAULT” or ”CTR FUEL XFER FAIL” messages clear and the associated synoptic fuel page indications return to normal.

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In the event of a center transfer pump failure, the center scavenge pumps will slowly transfer fuel from the center tank to the wing tanks. Note that the rate of transfer will vary depending on the fuel quantity in the wing tanks. Laboratory testing of the center transfer pump and reports from the field have demonstrated that the pumps can re-prime if the altitude is lowered to approximately 30,000 feet, and once re-primed, will operate normally at higher altitudes for the remainder of the flight.

4.0 ACTION:

Operators are reminded to be familiar with this issue and to follow the Global Express Airplane Flight Manual (AFM) reference 1.1, “Non Normal Procedures” section if a “CTR FUEL XFER FAIL or FAULT” message is displayed and the pumps are submerged in fuel.

Note 1:

At the flight crew discretion and with mission requirements permitting, if the “CTR FUEL XFER FAIL” message is displayed, the crew may elect to descend to approximately 30,000 feet in an attempt to re-prime the center transfer pumps. Monitor the center transfer pumps’ status. If the caution message clears, resume flight as per flight plan and monitor the fuel tank quantity and distribution to determine if there is any effect on the mission. If the failure message continues to be displayed for more than 15 minutes, proceed as per AFM procedures.