

ADVISORY WIRE

AW700-23-0372

DATE: February 9, 2012

PAGE: 1 OF 4

FROM: BOMBARDIER CUSTOMER SERVICES BUSINESS AIRCRAFT

ADVISORY WIRE

REFERENCE NO: AW700-23-0372

SUBJECT: No Fault Found initiative: Datalink

EFFECTIVITY: Global Express aircraft (9002 to 9158)
Global 5000 aircraft (9127 to 9413, 9415 to
9442, 9998)
Global Express XRS aircraft (9159 to 9431)

ATA: 23-23

This Advisory Wire contains Operational and Maintenance Information

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ADVISORY WIRE

AW700-23-0372

DATE: February 9, 2012

PAGE: 2 OF 4

1.0 REFERENCES:

1.1 Teledyne Service Bulletin, SB8400021-23-11 (MOD 3), Jan 29 / 2008

1.2 Teledyne Service Bulletin, SB8400021-23-13 (MOD 5), Sep 03 / 2010

1.3 Advisory Wire 700T-0123 Rev. 1, March 13, 2009- "ACARS DMU FAIL Message"

References 1.1 and 1.2 are available on Bombardier CIC website (<http://www.cic.bombardier.com/>) within Technical Library > Services Bulletins > By Vendor > Teledyne Controls.

Reference 1.3 is available on Bombardier CIC website (<http://www.cic.bombardier.com/>) within Technical Library > Advisory / Alert Wires

2.0 INTRODUCTION:

This Advisory Wire is to update Operators on the initiative to reduce the No Fault Found (NFF) rate for the ADLU (Airborne Datalink Unit).

3.0 DESCRIPTION:

The ADLU (Airborne Datalink Unit) has been identified as part of the Top Ten NFF for Global Express. An extensive investigation was conducted by Bombardier and the vendor (Teledyne Controls) to reduce the NFF rate. However, with corrective actions introduced earlier (improved ARINC transmitters in references 1.1 and 1.3) and SmartFix Plus solution, the most recent NFF rate is still high at approximately 48%.

Bombardier reviewed and analysed the details of removals that have been declared NFF and found that the majority of NFF trend is identified as removals related to the either of the following items:

- "ACARS DMU FAIL" message displayed on FMS CDU
- Unable to send / receive datalink messages

ADVISORY WIRE

AW700-23-0372

DATE: February 9, 2012

PAGE: 3 OF 4

During a joint investigation with the supplier, Bombardier had loaned Teledyne, the actual aircraft equipment that the ADLU interfaces with, to allow additional testing in the Lab with aircraft components.

The root cause of "ACARS DMU FAIL" message is the static memory (SRAM) operating intermittently, and was due to a ripple on the input supply voltage. Teledyne replaced the SRAM integrated circuits and the input voltage filtering capacitors with superior functional performance components and intensively tested the ADLU without any failure observed. The above fix is released in Ref. 1.2 Service Bulletin (Mod. 5).

To receive and send datalink messages, the ADLU interfaces with VHF3, SATCOM and the Cabin Communication System (Telephony). It should be noted that for communication issues between these components and the ADLU, SmartFix Plus tool provides detailed troubleshooting for "VHF NOCOMM", "SAT NOCOMM" and "TEL NOCOMM" FMS CDU advisory messages as well as their related CAIMS fault codes. Therefore, it is highly recommended to follow these troubleshooting instructions prior to rejection of the ADLU.

4.0 ACTION:

In order to reduce the NFF rate and avoid aircraft downtime, Bombardier recommends the following actions:

1. If the "ACARS DMU FAIL" message is displayed on the FMS CDU, or FMS CDU blanks or freezes when in Datalink menu, then verify if Ref. 1.2 Service Bulletin (MOD 5) is incorporated, and contact Teledyne Controls to upgrade the ADLU to MOD 5 if required.
2. In cases of communication issues as described above, follow the troubleshooting instructions in SmartFix Plus tool prior to rejection of the ADLU.

ADVISORY WIRE

AW700-23-0372

DATE: February 9, 2012

PAGE: 4 OF 4

Have any suggestions or comments?

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