ADVISORY WIRE

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REFERENCE NO:	AW700-24-0547, Rev 1	INFORMATION TYPE:	Maintenance
ATA:	24-32	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429) Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998) Global 5000 feat. Vision Flight Deck (9386, 9401, 9445 - 9997) Global 6000 (9313, 9381, 9432 -9997)
SUBJECT:	**Avionics battery heater harness failures**		

1. REFERENCES:

1.1. Vendor Service Bulletin (VSB) 24-02 – Replace Existing Avionics Battery Harness Assembly, P/N 024117-00. Released Oct 31, 2016.

http://cic.bombardier.com in Technical Library > Service Bulletins > By Vendors > Safran Power

1.2. Time Limit and Maintenance checks (TLMC) task 24-32-01-203 - Restoration of the Avionics battery.

http://cic.bombardier.com in Technical Library > Technical Publications > Online Manuals

2. INTRODUCTION:

This Advisory Wire (AW) informs the Operators of occurrences where during scheduled or unscheduled battery maintenance, numerous Avionics batteries were found with the heater harness assembly, internal components and/or case damaged.

This revision is to modify the VSB number and the VSB's location in the reference section.

3. DESCRIPTION:

As part of the continued reliability monitoring of the batteries, Bombardier has identified a trend in the removal data. There have been cases reported where the avionics batteries have experienced internal/case damaged during normal operation. In some instances, it was noted that the "AV BATT HEAT" (D3) Circuit Breaker (CB) located in the Cockpit Circuit Breaker Panel (CCBP) had previously tripped. In most cases, the CB was reset and all indications appeared normal. In other cases, the CB didn't trip but different symptoms were observed by the crew:

1. "AV BATT FAIL" Engine Crew Alerting System (EICAS) message posted associated with non-nominal battery temperature value (i.e.: -22°C) posted on the DC synoptic display after approximately 6 hours of flight.
2. Abnormal Avionics battery voltage variation observed on DC synoptic page.

3. “AV BATT FAIL’’ EICAS message posted with nominal values indicated on DC synoptic page.

In the majority of the reported events, investigation revealed evidence of arcing from the battery harness assembly, more specifically on the heater section, to the adjacent battery cell(s). Although the exact cause of the damage has not been identified by SAFT, the batteries’ manufacturer, the heater section of the harness assembly over flexibility was identified as the major contributor to the damage caused to the heater blanket during normal maintenance (i.e.: during cells replacement). As part of the investigation, BBA has completed a risk assessment to evaluate the severity and the probabilities related to this condition. The results of this assessment are within the system’s specification considering the multiple electrical systems’ redundancies.

The suspect harness assembly is identifiable by its heater blanket blue color and was introduced into production in April 2012. The batteries’ manufacturer has since discontinued the use of this heater part of the harness assembly and returned to a more robust heater blanket in December 2013. Since then, the new batteries installed in production contains the improved harness assembly. In order to address the in-service batteries that have the harness assembly built using the blue heater blanket, Safran Power/SAFT has release a Service Bulletin (SB) (Ref. 1.1) to install the improved harness at the next battery maintenance.

4. ACTION:

No immediate action is required. However, BBA recommends the Operators to comply with Vendor Service Bulletin (VSB) (Ref.1.1) at the next scheduled maintenance of the batteries in accordance with Time Limit and Maintenance checks (TLMC) task - Restoration of the Avionics battery at 8 months’ intervals (Ref.1.2).

Should you have any technical queries pertaining to this Advisory Wire, please contact your Field Service Representative.