

# ADVISORY WIRE

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REFERENCE NO:	AW700-31-0563, Rev 04	INFORMATION TYPE:	Maintenance Operational
ATA:	31-41	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429)
SUBJECT:	<b>Batch 3.3 Software Upgrade – In-Service Observations</b>		Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998)

## 1. REFERENCES:

- 1.1. Bombardier Service Bulletin (SB) 700-31-034 / 700-1A11-31-017, Modification – Integrated Avionics Computer (IAC) System – Batch 3.3 Software Upgrade, revision 2, released 23 Jan 2017
- 1.2. Bombardier Service Bulletin (SB) 700-31-030 / 700-1A11-31-014, Modification – Integrated Avionics Computer (IAC) System – Batch 3 Software Upgrade, revision 4, released 03 Oct 2016
- 1.3. Honeywell D201203000020-r001, Primus<sup>(R)</sup> 2000XP Integrated Avionics System for the Bombardier Global Express/5000/XRS Software Version NZ6.1 Pilot's Guide, Batch 3 thru Batch 3.3, dated June 2016 or later revision
- 1.4. Honeywell D201203000019-r004: Flight Management System (FMS) for the Bombardier Global Express/5000/XRS Software Version NZ6.1 Pilot's Guide, Batch 3.0 through Batch 3.3, dated June 2016 or later revision  
References 1.3 and 1.4 are available in the Honeywell website under Services > Technical Publications: (<https://myaerospace.honeywell.com>) OR attached with reference 1.1 SB
- 1.5. Batch 3 Upgrade – Planning Guide for Operators and Service Centers, Revision D or Later
- 1.6. Bombardier Advisory Wire (AW) 700-23-0578 – FMS CDU “ACARS DMU FAILED” message observed Post Batch 3.3, revision 1, released Feb/17

References 1.1, 1.2, 1.5 and 1.6 are available on the Bombardier Customer Portal: ([my.businessaircraft.bombardier.com](http://my.businessaircraft.bombardier.com)) > Library > Search by Keyword

## 2. INTRODUCTION:

Revision 4 of this Advisory Wire (AW) is to advise operators that the printed manuals for the Batch 3.3 upgrade are now available Free of Charge (FOC) from Honeywell. Additionally, an update is provided on Ground Service Providers (GSPs) that have implemented an uplink file size limit to prevent an FMS CDU reset upon a flight plan winds update. This AW provides information regarding in-service observations on Batch 3.3 (Ref. 1.1) equipped aircraft.

Batch 3.3 is a software upgrade to the Honeywell avionics suite for the Global Express, Global 5000 and Global Express XRS aircraft to introduce a new functionality and address issues raised with the previous Batch 3 software upgrade SB (Ref. 1.2).

### 3. DESCRIPTION:

Batch 3.3 software upgrade is available through Free of Charge (FOC) SB (Ref. 1.1) to operators who previously incorporated the Batch 3 software upgrade SB (Ref. 1.2). This SB introduces a software upgrade of the three (3) IACs that include changes to the Flight Management System (FMS) and the Electronic Display System (EDS).

Revision 2 of the SB (Ref. 1.1) provides improvements on the Pilot Information Sheet (PIS), as well as additional information in the Planning, Tooling, Set Up, Modification and Testing sections, based on in-service feedback.

#### In-service observations and feedbacks from Batch 3.3 aircraft:

Batch 3.3 software upgrade SB (Ref. 1.1) was initially released in July 2016. In-service observations and feedbacks received are concerning two (2) specific conditions:

- “ACARS DMU FAILED” FMS Control Display Unit (CDU) scratchpad messages

The reported cases of “ACARS DMU FAILED” FMS CDU scratchpad messages, occurs both on the ground and in flight at various times, leading to momentary or, in some other cases, several minutes loss of Controller Pilot Data Link Communication (CPDLC) functionality. Bombardier Technical Services is actively investigating this condition with Honeywell and Teledyne in order to determine root cause.

For more details and for all future update on the investigation or findings on this particular condition refer to the dedicated Advisory Wire (Ref. 1.6).

- FMS CDU reset upon a flight plan winds update request thru Datalink

We have receive a few reports of FMS CDU reset; these indicate that following a flight plan winds update request through Datalink, the FMS CDU sometimes drops the flight plan and resets after the request is sent. The root cause was identified by Honeywell to the allocated memory capacity of the FMS circuit card in the IAC. The reset occurs when an uplink file message block from the Ground Service Provider (GSP) exceeds 1264 characters. When this character limit is exceeded, the FMS software resets and results in the CDU blanking associated with “FMS FAIL X” CAS message (where X is the FMS associated to the CDU where the request was made), loss of flight plan, FMS dropping into single mode operation. In some occurrences, the autothrottle may unexpectedly disconnect and autopilot drops to its basic mode due to invalid FMS data.

The investigation conducted by Honeywell confirmed that all Ground Services Provider (GSP) implemented an uplink size limit for each transmission block to prevent this condition. This solution is transparent to the flight crew and allows seamless flight plan winds update operation.

Following are the GSPs that have implemented the uplink size limit:

- ✓ ARINC Direct (AD)
- ✓ Global Data Center (GDC)
- ✓ Universal (UV)
- ✓ SATCOM Direct (SD)

#### 4. ACTION:

Operators should be familiar with the summary of the Batch 3.3 changes available within the Pilot Information Sheet (PIS) of the SB (Ref. 1.1).

Bombardier recommends operators schedule their Batch 3.3 software upgrade in accordance with the instructions in the SB (Ref. 1.1) for aircraft already equipped with Batch 3 to benefit from the 24 month free upgrade period.

Operators should review the SB information as well as the associated FMS (Flight Management System) and Operating Pilot's Guides (Ref. 1.3 & 1.4). These are available FOC via the Honeywell website in an electronic version download (PDF) by selecting "View Publication".

For operators that require printed manuals for their specific standard operating procedures it is recommended to plan for the upgrade accordingly. These manuals are available Free of Charge (FOC) and can be ordered via the Honeywell website by selecting "Request this Publication" with the aircraft / customer, shipping information, indicating the upgrade to Batch 3.3 Software Upgrade with the Honeywell SB 7017300-22-0140 and a no charge P.O. for processing.

If you do not have access to the Honeywell website <https://myaerospace.honeywell.com> for the Technical Services and Technical Publications, you will need to register first via the Help Desk section on the Home page.

For operators that currently do not have Batch 3 on their aircraft, since the Batch 3 software upgrade (Ref. 1.2) is a prerequisite to the Batch 3.3 software upgrade (Ref. 1.1) it must be done before or at the same time.

Operators must also consider installation of any prerequisite SBs or equipment prior to the incorporation of the Batch 3 and refer to the Batch 3 Planning Guide (Ref. 1.5).

Bombardier is monitoring in-service feedback on the Batch 3.3 upgrade and encourage operator feedback via their Bombardier Field Service Representative (FSR).

As far as the ongoing investigation of the "ACARS DMU FAILED" message associated with Batch 3.3, Bombardier will keep operators informed of progress thru revision of Advisory Wire AW700-23-0578 – FMS CDU "ACARS DMU FAILED" (Ref. 1.6).

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Should you have any queries pertaining to this Advisory Wire (AW), please contact your Bombardier Field Service Representative (FSR) or the Customer Response Center (CRC).