

Advisory Wire

REFERENCE NO:	AW700-31-0647, Rev 03	INFORMATION TYPE:	Maintenance Operational
ATA:	31-41	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429) Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998)
SUBJECT:	Batch 3.4 Software Upgrade – Availability and Update		

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
- 1.2. Bombardier Service Bulletin (SB) 700-31-030 / 700-1A11-31-014, Modification – Integrated Avionics Computer (IAC) System – Batch 3 Software Upgrade
- 1.3. Bombardier Service Bulletin (SB) 700-34-053 / 700-1A11-34-027, Modification – Future Air Navigation System (FANS) – Introduction of FANS 1/A+ and RNP 4 30/30 Functionality
- 1.4. Bombardier Advisory Wire (AW) 700-23-0532 – FAA Data Comm DCL (Departure Clearances) using CPDLC messaging
- 1.5. Bombardier Advisory Wire (AW) 700-23-0578 – FMS CDU ‘ACARS DMU FAILED’ message observed Post Batch 3.3
- 1.6. Bombardier Advisory Wire (AW) 700-23-0642 – CPDLC Uplink Latency Time Monitor Function
- 1.7. Bombardier Advisory Wire (AW) 700-31-0563 – Batch 3.3 Software Upgrade – In-Service Observations
- 1.8. Bombardier Advisory Wire (AW) 700-34-0487 – FMS - Duplicate Waypoints in Airway Portion of Aeronautical Operation Control (AOC) and Future Air Navigation System (FANS) Uplink Not Properly Defined
- 1.9. Bombardier Service Bulletin (SB) 700-31-039 / 700-1A11-31-021, Modification – Integrated Avionics Computer (IAC) System – Batch 3.4 Software Upgrade

References are available on the Bombardier Customer Portal:
(my.businessaircraft.bombardier.com) > Library > Search by Keyword

- 1.10. Federal Aviation Administration (FAA) Bombardier Aircraft Services (BAS) Learjet Supplemental Type Certificate (STC) No. ST01920WI dated May 2019
(<http://rgl.faa.gov/>) > Supplemental Type Certificate

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- 1.11. Transport Canada Civil Aviation (TCCA) Bombardier Aircraft Services (BAS) Learjet Supplemental (STC) No. SA19-62 dated June 2019
(http://wwwapps.tc.gc.ca/Saf-Sec-Sur/2/nico-celn/c_s.aspx?lang=eng)
- 1.12. European Aviation Safety Agency (EASA) Bombardier Aircraft Services (BAS) Learjet Supplemental (STC) No. 10070281 Rev. 1 dated July 2019
(<https://www.easa.europa.eu/document-library/type-certificates/supplemental-type-certificates#group-easa-downloads>) > Supplemental Type Certificates > Download

2. INTRODUCTION:

Revision 3 of this Advisory Wire (AW) is issued to inform operators and flight crews of the FAA STC ST01920WI (Ref. 1.10) approval by the TCCA (Ref. 1.11) and EASA authorities (Ref. 1.12). This SB was already supported by the FAA approval received in May 2019 (Ref. 1.10).

3. DESCRIPTION:

This Integrated Avionics Computer (IAC) software change became necessary when Honeywell notified Bombardier that the FMS software version NZ6.1 latency timer monitor function part of the FANS 1/A+ (Ref. 1.3) functionality to meet the DO-258A (Interoperability Requirements for ATS Applications using ARINC 622 Data Communications) was not implemented per specification as indicated in the AW700-23-0642 (Ref. 1.6). Bombardier and Honeywell had developed a plan to correct this condition as well as the 'ACARS DMU FAILED' message (Ref. 1.5) affecting aircraft post Batch 3.3 (Ref. 1.1). Additional fixes to Batch 3.3 (Ref. 1.1) and Batch 3 (Ref. 1.2) are also included.

Batch 3.4 software upgrade is available through a Free of Charge (FOC) Supplemental Type Certificate (STC) with a Bombardier cover SB (Ref. 1.10) to operators who incorporated Batch 3 software upgrade (Ref. 1.2).

Table 1 – Summary of Batch 3.4 Fixes	Advisory Wire
CPDLC message element DCL [REQUEST CLEARANCE] is not sent as expected for DCL FANS (Future Air Navigation System) datalink departure clearance	AW700-23-0532 (Ref. 1.4)
'ACARS DMU FAILED' CDU scratchpad message observed post Batch 3.3	AW700-23-0578 (Ref. 1.5)
Logic change for CPDLC uplink message latency delay timer & update user interface page on the CDU for latency timer function (seconds)	AW700-23-0642 (Ref. 1.6)
FMS reset upon flight plan winds update when large uplinks are sent from Ground Service Providers (GSP)	AW700-31-0563 (Ref. 1.7)
Duplicate Waypoints in Future Air Navigation System (FANS) uplink not properly defined	AW700-34-0487 (Ref. 1.8)

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BAS Learjet STC (Ref. 1.10) is presently FAA, TCCA and EASA approved (Table 2) so only US, TCCA and EASA registered aircraft are eligible to perform Batch 3.4 software upgrade (Ref. 1.9). Some Authorities may accept the FAA, TCCA or EASA approved STC without having to go over their own validation process but Bombardier recommendation is to contact your Aviation Authority to validate if this is the case before scheduling Batch 3.4 software upgrade.

Pay particular attention that only the IAC P/N 7017300-61013 will be modified and that a quantity of one (1) Honeywell Customer Software Kit Part No. KS7025350-61014 per IAC P/N 7017300-61013 is required.

NOTE that IAC P/N 7017300-62013 installed only in IAC position 3 on aircraft with two (2) Flight Management System (FMS) Control Display Unit (CDU) installed won't be modified.

Table 2 – Timeline / Milestones	Target Date
SOW (Scope of Work) definition	Complete
Honeywell selection of STC owner	Complete
FAA TSO	Complete
Regulatory STC Approval & Validations <ul style="list-style-type: none"> - FAA STC No. ST01920WI Approval - TCCA STC No. SA19-62 Approval - EASA STC No. 10070281 Rev. 1 Approval - Others Regulatory Authorities (as required) 	May 2019 June 2019 July 2019 Q3/2019
Bombardier cover SB released (FAA STC approval)	May 24/2019
Revised SB (Rev.1) with EASA STC approval	Jul 08/2019
Revised SB (Rev.2) with TCCA STC approval	Jul 15/2019

4. ACTION:

Operators and flight crew should be familiar with the summary of Batch 3.4 fixes per Table 1.

Batch 3.3 software (Ref. 1.1) is a prerequisite to Batch 3.4 software upgrade and must be done before, or at the same time.

This SB is covered by a dedicated schedule therefore advance part scheduling with our In-Service Implementation Team (ISIT) is recommended prior to a maintenance visit. Please contact your Regional Manager (RM), Field Service Representative (FSR) or Customer Service Representative (CSR) to schedule your aircraft. This Service Bulletin can be embodied at customer's most convenience place: Bombardier Business Aircraft Services (BBAS), Authorized Service Facilities (ASF), or any other certified service center.

Note that operators with existing FAA A056 Data Link authorization (Ref. 1.10) will have to coordinate with their local FAA inspector in order to obtain a revised A056 following Batch 3.4 software upgrade (Ref. 1.9).

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).