

Advisory Wire

REFERENCE NO:	AW700-34-0560, Rev 01	INFORMATION TYPE:	Operational
ATA:	34-61	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429) Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998)
SUBJECT:	Post Batch 3, Batch 3.3 and Batch 3.4 – FMS – FLY VECTORS TO INTERCEPT leg deleted, resulting in incorrect course on Control Display Unit (CDU)		

1. REFERENCES:

- 1.1. Honeywell Service Information Letter (SIL) D201604000047R003 – Fly Vectors to Intercept Leg Deleted, Resulting in Incorrect Course on Multifunction Control Display Unit (MCDU) or Control Display Unit (CDU), dated 16 Oct 2019
- 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) 700-31-034 / 700-1A11-31-017, Modification – Integrated Avionics Computer (IAC) System – Batch 3.3 Software Upgrade
- 1.4. Bombardier Service Bulletin (SB) 700-31-039 / 700-1A11-31-021, Modification – Integrated Avionics Computer (IAC) System – Batch 3.4 Software Upgrade

References 1.1, 1.2, 1.3 and 1.4 are available on the Bombardier Customer Portal: my.businessaircraft.bombardier.com > Library > Search by Keyword

2. INTRODUCTION:

Revision 1 of this Advisory Wire (AW) is to advise operators of a condition where the flight crew action of deleting “FLY VECTORS TO INTERCEPT” leg may result in an incorrect heading in the flight plan.

Honeywell FMS software version NZ6.1 post Batch 3 (Ref. 1.2, IC-810, IAC PN 7017300-61010), post Batch 3.3 (Ref. 1.3, IC-810, IAC PN 7017300-61013) and post Batch 3.4 (Ref. 1.4, IC-810, IAC PN 7017300-61014) currently installed on the Global Express/5000/XRS are affected by this condition.

3. DESCRIPTION:

The Honeywell SIL (Ref. 1.1) describes a situation where a flight plan was entered by the flight crew into the Flight Management System (FMS) with no instrument departure selected. Later in the flight, the crew manually entered a waypoint in that flight plan and observed unexpected behavior from the FMS when the

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active flight plan was amended by deleting “FLY VECTORS TO INTERCEPT” leg. A heading, not in accordance with the published chart was displayed on the CDU.

Although, a vectors approach was loaded into the flight plan, an Intermediate Fix (IF) was manually inserted on top of the Final Approach Fix (FAF) waypoint and caused the “FLY VECTORS TO INTERCEPT” leg to be removed and replaced with a “VIA.TO”.

The “VIA.TO” leg was deleted, and the course displayed on the CDU was not in accordance with the charted procedure for the Instrument Landing System (ILS) approach.

When an approach procedure is activated with a “vectors” approach transition, the system will build a flight path using “FLY VECTORS TO INTERCEPT”, which is a Course to Fix (CF) leg when the next waypoint is the FAF in the procedure.

Honeywell investigation revealed that the root cause was identified to be a software issue when flight crew were manually inserting waypoints after the “FLY VECTORS TO INTERCEPT” leg. When a waypoint is inserted after the “FLY VECTORS TO INTERCEPT” and prior to the FAF, the flight plan creates an Initial Fix (IF) leg with an incorrect course and displays “VIA.TO” instead of the inserted waypoint name. When the “VIA.TO” leg is deleted, the inserted waypoint name appears, but the course to the waypoint is incorrect.

4. ACTION:

- | Operators should be familiar with the condition and with the example detailed in the Honeywell SIL (Ref. 1.1). Flight crews are reminded to fly the published procedures available in the Navigation Database (NavDB) and monitor all phases of flight.

If a “vectors” transition was activated into the flight plan and it becomes necessary to revise the approach, Honeywell recommends inserting an approach procedure with a transition other than “vectors” and then modify accordingly.

As a reminder, when manually inserting a waypoint into the flight plan on an approach, that specific waypoint is not considered a procedure waypoint by the FMS.

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).