

Advisory Wire

REFERENCE NO:	AW700-23-0664	INFORMATION TYPE:	Maintenance Operational
ATA:	23-23	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429) Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998)
SUBJECT:	Telelink - FLT ID Embedded in DEPART Clearance Downlink message		

1. REFERENCE:

1.1. Bombardier Service Bulletin 700-23-005/700-1A11-23-005, MODIFICATION – AIRBORNE DATA LINK SYSTEM – INSTALLATION.

2. INTRODUCTION:

The purpose of this Advisory Wire (AW) is to inform operators about an operational condition affecting the Air Traffic Control (ATC) Data Link Departure Clearance Request (RCD) for Telelink equipped aircraft (Ref. 1.1), where the Flight ID embedded in the RCD downlink message does not correlate with the aircraft identification entered in the Flight Plan.

3. DESCRIPTION:

When requesting an ATC Departure Clearance using the Datalink “DEPART CLX” page (see Figure -1), the “RCD” downlink message is formatted as defined in EUROCAE ED-85A and ARINC 623 standards, where every downlink transmission includes a Flight Identifier as part of the message text.



Figure -1- Predeparture Clearance Request Page

Based on field reports, the RCD was rejected by the local ATC controller due to an issue where the Flight Identifier did not contain the aircraft Registration Number as expected. In normal operation, the Flight Identifier broadcasted with the RCD downlink message, is correlated with the aircraft registration number, previously filed through the ICAO Flight Plan process and if the two do not match, the RCD gets rejected.

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In the following example, the ATC responded with an uplink of the datalink message back to the aircraft: "RCD REJECTED FLIGHT PLAN NOT HELD REVERT TO VOICE PROCEDURE" (see Figure -2).

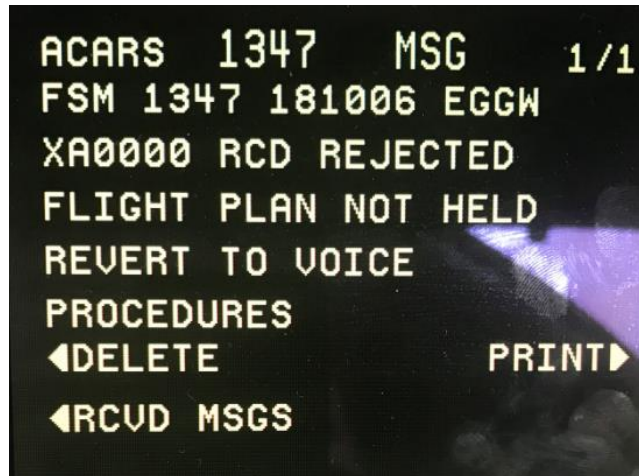


Figure -2- Received ATC message following Departure Clearance Request

Subsequent investigation revealed that the Teletype was designed to use the Flight Identifier (FI), which is a combination of the 2 characters of airline identifier from the Configuration Module (e.g. XA), followed by a 1 to 4 numeric characters flight number (e.g. 0000) which is available from Datalink Pre-Departure Clearance menu (FLT NO) (See Figure -3).

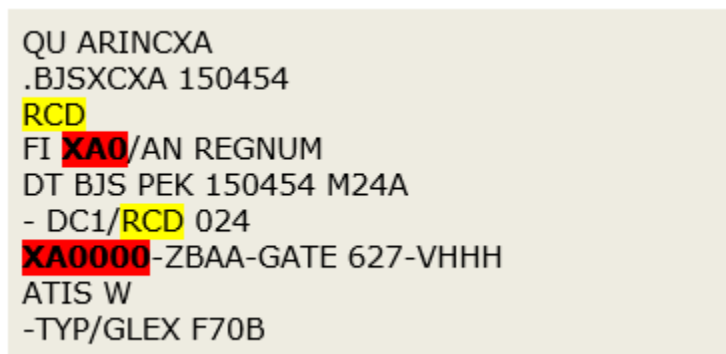


Figure 3- Teletype RCD downlink message - Sample Data

As a result, the Flight Identifier (FI) parameter embedded into RCD message will not be reflecting the actual Aircraft Registration Number (AN) that was filed in Item 7 (Aircraft Identification) of the ICAO Flight Plan, causing the RCD to be rejected. Teledyne has confirmed that this is a datalink software limitation.

Customer Services

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The following is a summary of the different Air Traffic Control (ATC) Clearance Delivery Services, in order to facilitate understanding of the above described RCD condition.

- 3.1. DCL (European Departure Clearance or PDC 623): This service is provided in Europe, Canada and Asia region.

DCL is a direct departure clearance over ACARS from ATC to pilot data link communication using the ACARS ATS application based on the EUROCAE ED-85A and ARINC 623 standards. The clearance delivered by the data link is a direct ATC delivered departure clearance and it is not dependent on the airline to ensure delivery via its own infrastructure.

- 3.2. PDC (U.S. Pre-Departure Clearance): This service is provided in North America (recently deployed in some airports in Asia region as well).

It is a subscriber based service that is used by ATC to deliver Pre-departure clearances. The clearance is transmitted from the tower to participating aircraft operations using host computers or Ground Service Provider (GSP). The GSP then takes action to deliver the clearance directly to the appropriate aircraft utilizing ACARS data link.

- 3.3. CPDLC-DCL (U.S. CPDLC-DCL): This service is currently provided in U.S Domestic airspace only.

CPDLC-DCL provides automated assistance for delivering initial and revised departure clearances. It is a FANS1/A+ application and messages are established using CPDLC message elements predefined in RTCA DO-258A standard. The message is routed via the GSP infrastructure, but with no interruption as the message is only passing through.

4. ACTION:

In order to avoid any RCD message rejection, pilots should use other available means (e.g. PDC or CPDLC-DCL) or revert to voice communication to request departure clearances.

Teledyne had informed Bombardier that they cannot modify the Telelink unit to correct this operational condition.

Should you have any query pertaining to this AW or requiring additional information, please contact your Bombardier Field Service Representative (FSR) or the Customer Response Center (CRC).