

ADVISORY WIRE

AW300-45-0009 Rev 1

DATE: 3 January 2008

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FROM: BOMBARDIER CUSTOMER SERVICES BUSINESS AIRCRAFT

ADVISORY WIRE

REFERENCE NO: AW300-45-0009, Rev. 1

SUBJECT: Maintenance Diagnostic Computer (MDC) Fault
History Reporting

EFFECTIVITY: BD100-1A10 (20003 - 20999)

ATA: 45-00

This Advisory Wire contains Operational and Maintenance Information

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1.0 REFERENCES:

- 1.1 Rockwell Collins Service Bulletin MDC-X100-45-7 - MDC-4110
MAINTENANCE DIAGNOSTIC COMPUTER
(CPN 822-1988-004/024/104) Rev. 1 released Aug 16/07
- 1.2 Rockwell Collins IDOC 0109-07

2.0 INTRODUCTION:

The revision to this Advisory Wire is to inform Operators about the release of the Ref 1.1 Service Bulletin. This Service Bulletin is handled by Rockwell Collins and will reduce the occurrences of fault history loss and MDC lock-up.

3.0 DESCRIPTION:

The following provides details of MDC issues reported and explains why the issues occur.

- Only the flight faults from the last leg are available when accessing the MDC for troubleshooting:

The MDC performs a memory clean up in the first 15 to 20 seconds after power-up as described in the Ref. 1.2 IDOC. If power is interrupted in the middle of the clean up, the memory is corrupted; consequently the MDC will not display or write the past history. Only the information from the last flight leg remains on the MDC because it is stored in a separate storage area until the leg is completed.

- MDC memory has missing LEG's, dates, parts of fault history (for MDC-4110):

After MDC download, the fault history has portion of LEG's, has no faults for the flight or has missing dates. This type of memory corruption is likely to occur if more than 100 legs of history are stored in the MDC memory.

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- MDC lock-up during Flight Fault history download (for MDC-4110). *.lpn file:

Randomly, during an All Reports download,, the MDC stops goes black and posts "NO DATA AVAILABLE" in the multifunction display. In most cases the MDC stops on the *.lpn file. The lock-up during the download of the LRU PN's file is caused by the MDC memory corruption.

4.0 ACTION:

Rockwell Collins incorporates the Ref. 1.1 Service Bulletin on every unit returned to their facility. There are a two ways to tell if a unit is upgraded.

- Physically check on the MDC mod plate if number 7 is marked.
- On the MDC Maintenance Main Menu page, select "CONFIGURATION DATA",
 - Then select MDC VERSION INFORMATION,
 - Finally, verify that Application PN and Kernel PN are -411.

Until Ref. 1.1 Service Bulletin is fully implemented, Bombardier recommends the following practices to avoid fault history corruption or software lock-up and avoid unnecessary removal of units:

- Do not cycle power for at least one minute following aircraft power-up.
- After a download, reset MDC fault history as per **MDC Reset Procedure** to limit the number of legs stored in the memory.
- Do a "Pilot Data Download" instead of an "All Reports Download" to prevent MDC lock-up. When that selection is made, the following files will be downloaded:
 - Fault Message History (.fmh)
 - Current Service message (.csm)
 - Current Fault data (.cfm)
 - Current ARINC data (.ldd)
 - Configuration Strapping Unit data (.csd)

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MDC Reset Procedure

Note that the MDC history data will be completely erased following this procedure.

1. On the MAINTENANCE MAIN MENU page, select MDC SETUP.
2. On the MDC SETUP page, using the cursor control panel (CCP) joystick and keys, perform the following 5 actions in sequence within a 5 second timeframe.

CL-300 actions	MDC generic command names
Joystick left	Pg up
Joystick right	Pg down
Joystick up	up
Enter	select
Joystick down	down

3. The additional options will show on the page:
 RESET FAULT HISTORY
 RESET SERVICE MESSAGE HISTORY
 RESET ALL DATA FILES
 DELETE CHECKLIST FILES
4. Highlight and select RESET ALL DATA FILES. The following page data will be displayed in the format below:

```

-----
*** CAUTION ***
THE FOLLOWING DATA WILL BE RESET
FAULT HISTORY SERVICE MESSAGE HISTORY
DO YOU WANT TO RESET THE DATA?
  >YES
    NO
-----
  
```

5. Highlight and Select YES to Reset the Fault History Data.

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6. A status message will confirm that MDC is resetting data. After several seconds, the status message will indicate NO DATA AVAILABLE and the MDC will restart.
**Do NOT power down the MDC while the erase operation is occurring (MDC takes about 30 seconds to erase and restart).
7. After the MDC restart, verification of the history content can be done by selecting AIRCRAFT HISTORY from the main MDC menu, then the FLIGHT LEG SUMMARY page. All legs should be empty except the current leg.