

ADVISORY WIRE

AW300-27-0058, Rev. 1

DATE: Aug 10, 2011

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FROM: BOMBARDIER CUSTOMER SERVICES BUSINESS AIRCRAFT

ADVISORY WIRE

REFERENCE NO: AW300-27-0058, Rev. 1

SUBJECT: Flap Control Unit – CAS Messages Reset procedure

EFFECTIVITY: Challenger 300 aircraft (20003 to 20999)

ATA: 27-51

This Advisory Wire contains Operational and Maintenance Information

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1.0 REFERENCES:

1.1 AW 300-27-0058 basic issue released March 20, 2007.

1.2 AIPC 27-51-05.

2.0 INTRODUCTION:

This revision to the Advisory Wire (AW) is to inform Operators that the new Flap Control Unit (FCU) PN: 2257A0000-03 is available.

3.0 DESCRIPTION:

The following nuisance fault messages related to EMI may be posted when the associated conditions are encountered.

1. "FLAPS FAIL" amber CAS message:

The monitor channel stops communicating with the control channel and reverts to a fail-safe mode that locks the flap system in its current position. The "FLAPS FAIL" will be posted followed by a "STALL PROTECT FAULT", "PITCH TRIM FAULT" and "SPOILER FAULT".

2. "FLAPS FAULT" cyan CAS message:

"FLAPS FAULT" will get posted during flight, when one of the Flap Position.

Indicator Unit (FPIU) stops communicating with the control and monitor channels. The system will continue to operate normally. Note that the CAS flap indication and one side of the synoptic Flight Control page indication may be dashed.

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After landing, the "FLAPS FAULT" cyan advisory message will change to an amber "FLAPS FAIL" message followed by "STALL PROTECT FAULT", "PITCH TRIM FAULT" and "SPOILERS FAULT" and the flap system will revert to a fail-safe mode that locks the system in its current position.

The FCU -03, introduced by IPC, addresses most of the nuisance messages related to Electro Magnetic Interference (EMI) that may be experienced with the FCU-02. In addition to the improved EMI protection, the FCU-03 features the following:

- Improved Non Volatile Memory (NVM).
- Hardware improvements for over-voltage protection.
- Improved self-test logic.

The FCU reliability has improved with the introduction of these changes and will continue to improve as the -03 penetrates the fleet.

4.0 ACTION:

There are no actions for Operators to take at this time. For aircraft still equipped with FCU PN: 2257A0000-02, the instructions below may still apply. For aircraft equipped with FCU 2257A0000-03, this AW no longer applies.

Should you experience either one of these CAS messages, **and** the MDC CURRENT FAULTS and/or FAULT HISTORY (Ref. AMM ATA 45-45) exhibit bit 13 and/or bit 16 set on the Label 352 under the FCU, the following steps should be performed on the ground in order to clear the messages:

1. Cycle power using circuit breakers CB1-B13 Flap L IND, CB1-B14 Flap CTRL and CB2-B12 Flap R IND CTRL.
2. Reset the FCU by pressing the FCU reset button (ref AMM 27-52-00).

NOTE: A power cycling is necessary before pushing the reset button. The power cycling will reactivate the FCU and clear the CAS messages and associated MDC.

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3. If the reset is successful:
 - Perform a MDC download (ref. AMM ATA4 45-45).
 - Please communicate this data to your FSR.
4. Operators experiencing the FLAPS FAULT message described above with a FCU-2 can exchange their FCU for an upgraded FCU-3.
5. If the failure cannot be reset on ground per the above procedure, proceed with troubleshooting using Smartfix Plus. If the FCU is replaced as a result of this troubleshooting, the MDC download should be included in the return package of the unit for further investigation.

Have any suggestions or comments?

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<http://csefeedback.aero.bombardier.com/index.php?sid=56451&newtest=Y&lang=en>