

Advisory Wire

REFERENCE NO:	AW300-22-0372	INFORMATION TYPE:	Maintenance Operational
ATA:	22-00	EFFECTIVITY:	Challenger 300 (20003 to 20500) Challenger 350 (20501 to 20999)
SUBJECT:	Autopilot Troubleshooting Data		

1. REFERENCES:

- 1.1 Challenger 300/350 SmartFix™Plus Procedure
- 1.2 Detailed FGC Troubleshooting Report attached

2. INTRODUCTION:

This Advisory Wire (AW) is to provide further guidance to Operators when requesting troubleshooting assistance from Bombardier Customer Response Center (CRC) with the Autopilot (AP), Automatic Flight Control System (AFCS) and Yaw Damper (YD) system issues.

3. DESCRIPTION:

The AP/AFCS/YD are complex systems that rely on data received from several aircraft systems. In order to continue improving our support, some additional data needs to be collected by the flight crew and/or the maintenance team prior to the aircraft power being removed before the initial contact with the CRC.

NOTE: Be aware that the fault logged by the Flight Guidance Computer (FGC) diagnostics system during the flight will be lost if the power is removed from the aircraft before the maintenance crew has recorded it.

Providing all available data to the CRC along with detailed flight crew report on the event will greatly benefit the CRC to be more efficient with their troubleshooting recommendations. It will also help reducing the case resolution time by avoiding back and forth communication to obtain additional data.

In addition, and in order to reduce case resolution time, the operators should always provide the complete Maintenance Diagnostic Computer (MDC) downloads for all legs and supporting NVM data for the systems at cause in the issue along with some debrief notes on the event, i.e. EICAS Message(s), flight deck effects, phase of flight, etc. When picture(s) and/or video(s) are available, it is beneficial to take the whole display and provide verbal comments along the way. Please review your picture(s) and/or video(s) prior to sending to see if the information you want to provide included and clearly visible.

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4. ACTION:

When reporting autopilot issues, flight crews should record all pertinent information from the flight and advise maintenance prior to shutting down the aircraft. This will allow the maintenance team to properly record AFCS Repair, AP Engage, AP Disengage, YD Engage and YD Disengage codes.

To assist in troubleshooting, the maintenance team should report the following information to the CRC via an e-mail to ac.yul@aero.bombardier.com:

- Detailed flight crew report
 - Including EICAS Message(s), flight deck effects, phase of flight, etc. (pictures and videos are beneficial)
 - The AP/AFCS/YD status at the moment of the issue as well as any other pertinent aircraft conditions such the weather, altitude, speed, flaps position, flight phase etc.
- SmartFix™Plus (Ref.1.1) troubleshooting findings
- Detailed FGC Troubleshooting Report (Ref. 1.2)
- MDC download
 - A complete MDC download for all legs is required for further review with the FGC Advanced Diagnostic data.

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