ADVISORY WIRE

You. First.

REFERENCE NO:	AW700-21-0389, Rev.1	INFORMATION TYPE:	Maintenance Operational
ATA:	21-60	EFFECTIVITY:	Global 5000 feat. Vision Flight Deck (9386, 9401, 9445 - 9997) Global 6000 (9313, 9381, 9432 -9997)
SUBJECT:	**Trim Air unavailable after APU start on battery**		

1. REFERENCES:

   1.1 Advisory Council Top Issue # 21-31-M-964 (voted at meeting #31, April 28-29, 2015)

2. INTRODUCTION:

This Advisory Wire is to inform Operators of a condition where the Global 5000 Featuring Vision Flight Deck and the Global 6000 are experiencing a sudden drop of temperature in the cabin and cockpit, following an APU start on battery.

This revision is to provide an update on the status of this investigation.

3. DESCRIPTION:

Occasionally, following an APU start from battery only (no external AC connected), a few seconds after the APU Generator comes on-line and with PACK CONTROL selected to “NORM” (default), both L and R PACK FAULT advisory messages are posted. Approximately one minute later, when the APU Load Control Valve (LCV) opens and the Packs start, the Hot Air Shut-Off Valves (HASOV) remain closed and the Packs will continue to deliver only cold air. No Trim Air fault will be posted and the temperature selectors on the cockpit ECS control panel will be ineffective.

The investigation revealed that the HASOVs remain in the closed position due to ACSC’s inability to assign an active channel after power-up. No pack starting sequence is achieved and the cold air is a result of the Flow Control Valves (FCV) automatically opening when pressure in the ducts is sufficient and the absence of trim air. The Air Conditioning System Controller (ACSC) is divided in two channels. The active channel is dependent on the date – channel A is active during odd date and channel B during even date. Due to the delays from the avionics suite to provide the accurate date to each channel of the ACSC, an inconsistency can be observed during the even days only, where a different date is received by each channel, setting both of them inactive.

The Pack Discharge Temperature Sensors (PDTS) are powered by the ACSC. When both channels are inactive, power to the PDTS is lost, resulting in L and R PACK FAULT advisory messages, accompanied by the OMS messages LH and RH PACK DISCHARGE TEMP SENSOR / WRG.

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4. ACTION:

As a workaround, Bombardier recommends cycling the PACK CONTROL selector through MAN and back to NORM to force the ACSCs to change the channel in control thus resetting the system and allowing it to function properly.

Operators should be aware that if both RH and LH PACK DISCHARGE TEMP SENSOR / WRG OMS messages are observed when the condition described above occur, the sensors are not defective and the messages shall be disregarded.

Bombardier is currently working with the vendor to explore potential solutions to prevent the occurrences of both ACSC channels inactive.

Update on the solutions will be provided via revision of this Advisory Wire and via the Advisory Council action (ref. 1.1).

If you have questions pertaining to this Advisory Wire, contact your local FSR.