

Advisory Wire

REFERENCE NO: AW300-21-0296 Rev 01 INFORMATION TYPE: Maintenance Operational
ATA: 21-60 EFFECTIVITY: Challenger 350 (20501 – 20999)

SUBJECT: Low Temperature in Cabin during descent

1. REFERENCES:

1.1 Flight Operation Notifications Manual (FONM) [ENVR-002-NC](#)

2. INTRODUCTION:

This revision is to provide an update on the possible low temperature in cabin during descent and the introduction of this item to the FONM (Ref 1.1)

3. DESCRIPTION:

In the previous revision of this Advisory Wire (AW) a condition was described where some aircrafts were experiencing a decrease in cabin temperature during descent when the Air Conditioning System was in Auto Mode.

The decrease in temperature is normal and this is due to a reduction in hot air flow from the engines to the low pressure bleed air circuit when at flight idle.

The following are some procedures that can be used to help stabilize the cabin temperature:

- During idle descents the ITT of the engines is relatively low. Increasing the N2 slightly (approximately 5%) will increase the ITT and provide warmer air to the cabin.
- Plan the descent a bit earlier and adjust the rate of descent/speed so the thrust is slightly above idle. This usually only takes a small increase to N2 (approximately 5%) to make a big difference in the temp control.
- The APU bleed temperature is higher than the engines (at idle) and is warm enough to fully heat the cabin at lower temperatures. When permitted, transfer the bleeds to the APU.
- After starting the engines, some operators will transfer bleeds to the engines and shutdown the APU as per normal operating procedure. There is nothing wrong with this practice, but when the aircraft has been parked and exposed to very low temperatures for an extended period of time, the cabin interior components may require significant time to warm up. During shorter distance flights there may not be enough time to fully warm the components prior to descent. This will amplify the lower cabin temperatures experienced during descent. Using the APU as the bleed air source after takeoff until the altitude limitation of the APU is reached will warm the components faster.

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4. ACTION:

Operators should be aware of the introduction of this item in the FON Manual (Ref 1.1) and that as part of the Challenger 3500 introduction; aircraft SN:20887 and up (including some CL-350) have a new airflow schedule. The new schedule provides more bleed extraction during flight idle to maintain the cabin temperature. This new feature allows for better air flow regulation and improved Pack performance. This will greatly enhance temperature control and regulation during those flight conditions.

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