Customer Services

Advisory Wire

REFERENCE NO:	AW700-32-0244 Rev 3	INFORMATION TYPE:	Maintenance Operational
ATA:	32-43	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429) Global 5000 (9127 - 9383, 9389 - 9400, 9404 - 9431 and 9998) Global 5000 feat. Vision Flight Deck (9386, 9401, 9445 - 9862, and 9868 - 9997) Global 6000 (9313, 9381, 9432 to 9860, 9863 - 9871, 9873 - 9997 and 60005 - 61999) Global 5500, Global 6500 (9861, 9872, 60001 - 61999)
SUBJECT:	**Operational Procedures to Prevent Freezing Brakes**		

1. REFERENCES:
   - 1.1. Global Express / XRS / 5000 / 6000, Flight Crew Operating Manual, Vol.1 Ch. 07, Cold Weather Operations, Ch. 07-01-64, Procedures to Prevent Freezing of Wheel Brakes.
   - 1.2. Global 5000 feat. Vision Flight Deck, Flight Crew Operating Manual, Vol.1 Ch. 07, Cold Weather Operations, Ch. 07-01-62, Procedures to Prevent Freezing of Wheel Brakes
   - 1.3. Global Express / XRS /5000 feat. Vision Flight Deck Aircraft Flight Manual 02-08-7, Para 1. W. Wheel Brake Cooling Limitations.
   - 1.4. Global 6000 Aircraft Flight Manual 02-08-2, Para 1. G. Wheel Brake Cooling Limitations.
   - 1.5. Global 5000 Aircraft Flight Manual 02-08-3, Para 1. G. Wheel Brake Cooling Limitations.
   - 1.6. Global Express / XRS / 5000 / 6000 / 5000 feat. Vision Flight Deck, Aircraft Maintenance Manual (Part two) Task 12-21-00-110-808, Cleaning of the External Surfaces of the Aircraft Aircraft
   - 1.7. Global Express / XRS / 5000 / 6000 / 5000 feat. Vision Flight Deck, Aircraft Maintenance Manual (Part two)Task 12-21-00-110-810, Cleaning of the Landing Gear

2. INTRODUCTION:

   This Advisory Wire is being updated to Revision 3 to add aircraft models and serial numbers to the effectivity.

   This Advisory Wire is to raise awareness that a frozen brake situation may occur subsequent to the brake(s) being subjected to moisture from wet weather, ground operations, aircraft washing, parking and cold weather operations.

3. DESCRIPTION:

   Flight crews and maintenance personnel are reminded that carbon brakes are porous and can absorb or retain moisture. Should this occur, a subsequent taxi might produce a flat spot on the tire or the subsequent landing may result in a tire burst.

3. DESCRIPTION (continued):

Rainfall can cause wetting of the brakes, even in light wind conditions when the brakes would normally be assumed to be sheltered by the wing structure. After exposure to moisture, a prolonged period of dry warm conditions is required to ensure full drying takes place. Alternatively, brake applications must be deliberately applied during taxi, before departure, to ensure the moisture is evaporated away.

It is important to be aware that the brakes may remain saturated with water for a lengthy dry period after the rainfall ceases and the runways and taxiways have dried.

If a wet brake is not heated sufficiently to evaporate moisture from the disk surfaces, there is a possibility after in-flight cold soak or parking in known wet or freezing conditions that the brake disk surfaces may freeze together.

4. ACTION:

Maintenance personnel are reminded to protect aircraft wheels and brakes from direct washing spray and inform the flight crew if the aircraft or the landing gear have been washed recently as instructed in external surfaces aircraft cleaning and landing gear cleaning procedure (Ref. 1.6 & 1.7)

In accordance with references 1.1 to 1.5, if the brakes have been exposed to moisture, flight crews are reminded to:

- During taxi, use light brake applications to warm the brakes before take-off. Monitor brake temperature during taxi.
- When landing, carry out a positive landing to ensure initial wheel spin up and breakout of frozen brakes if icing has occurred.
- During the landing roll and subsequent taxi, use brakes to prevent progressive build-up of ice on the wheels and brakes. Monitor brake temperature during taxi.

Following take-off or landing on wet, snow or slush covered runways and taxiways; tires should be inspected for flat spots prior to the next flight.

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