

ADVISORY WIRE

AW700-32-0244, Rev. 1

DATE: August 20, 2008

PAGE: 1 OF 4

FROM: BOMBARDIER CUSTOMER SERVICES BUSINESS AIRCRAFT

ADVISORY WIRE

REFERENCE NO: AW700-32-0244, Rev. 1

SUBJECT: Operational Procedures to Prevent Freezing Brakes

EFFECTIVITY: BD700-1A10 (9002 -9999)
BD700-1A10 (9002 - 9999)
BD700-1A11 (9127 - 9999)

ATA: 32-43-00

This Advisory Wire contains Operational and Maintenance Information

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ADVISORY WIRE

AW700-32-0244, Rev. 1

DATE: August 20, 2008

PAGE: 2 OF 4

1.0 REFERENCES:

- 1.1 Global Express, Flight Crew Operating Manual, Vol.1 Ch. 07, Cold Weather Operations, Ch. 07-01-46, Procedures to Prevent Freezing of Wheel Brakes.
- 1.2 Global 5000, Flight Crew Operating Manual, Vol.1 Ch. 07, Cold Weather Operations, Ch. 07-01-45, Procedures to Prevent Freezing of Wheel Brakes.
- 1.3 Global Express XRS, Flight Crew Operating Manual, Vol.1 Ch. 07, Cold Weather Operations Ch. 07-01-46, Procedures to Prevent Freezing of Wheel Brakes.
- 1.4 Global Express, Global Express XRS & Global 5000 Aircraft Flight Manual 02-08-2, Para 1. G. Wheel Brake Cooling Limitations.
- 1.5 Global Express, Global Express XRS & Global 5000 Aircraft Maintenance Manual Task 12-21-00-110-808, External Cleaning of the Aircraft
- 1.6 Global Express, Global Express XRS & Global 5000 Aircraft Maintenance Manual Task 12-21-00-110-810, Cleaning of the Landing Gear

All flight and maintenance manuals are available on the CIC website (<http://www.cic.bombardier.com>) within the Technical Library > Manuals > Maintenance and Flight Manuals for Bombardier > for Global > Global Express or Global Express XRS or Global 5000 Publications.

2.0 INTRODUCTION:

This Advisory Wire is being revised 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 from cold weather operations.

The title of this Advisory Wire was revised from “Cold Weather Operation Procedures to Prevent Freezing Brakes” to “Operational Procedures to Prevent Freezing Brakes” to also address the possibility of a frozen brake from exposure to wet conditions in non cold weather operations.

ADVISORY WIRE

AW700-32-0244, Rev. 1

DATE: August 20, 2008

PAGE: 3 OF 4

3.0 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.

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.

4.0 ACTION:

Maintenance personnel are reminded to protect aircraft wheels and brakes from direct washing spray and inform the flight crew if the aircraft or landing gear has been washed recently. Please refer to the references above (Ref. 1.5 & Ref. 1.6 for aircraft and landing gear cleaning procedures.

In accordance with references above (Ref. 1.1, Ref. 1.2, Ref. 1.3 & Ref. 1.4), if the brakes have been exposed to moisture, flight crews are reminded to:

- During taxi, use firm brake applications to warm the brakes before take off. Monitor Brake Temperature Monitoring System (BTMS) during taxi.

ADVISORY WIRE

AW700-32-0244, Rev. 1

DATE: August 20, 2008

PAGE: 4 OF 4

4.0 ACTION (continued):

- 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 BTMS 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.

Bombardier will be revising the Global Express and Global Express XRS Flight Crew Operating Manual (FCOM) Vol. 1 to introduce brake warming guidelines by revision 58, while the Global 5000 FCOM will be revised by revision 19. These revisions are scheduled for release September 15, 2008.