ADVISORY WIRE

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REFERENCE NO:	AW700-24-0370, Rev. 2	INFORMATION TYPE:	Maintenance
ATA:	24-25	EFFECTIVITY:	Global Express / XRS (9002 - 9312, 9314 - 9380, 9384 - 9429) Global 5000 (9127 to 9383, 9389 to 9400, 9404 to 9431 and 9998) Global 5000 feat. Vision Flight Deck (9386, 9401, 9445 - 9492) Global 6000 (9313, 9381, 9432 -9492)
SUBJECT:	Variable Frequency Generator (VFG) #4 Feeder Cable Chafing		

1. REFERENCES:

1.1. In-Service Modsum, ISMS700-24-0009 Rev A, Primary AC Power Supply – Main Generators – Protect the VFG 4 Power Cable from Chafing, released September 26, 2012.

2. INTRODUCTION:

The revision of this Advisory Wire (AW) is to modify the aircraft effectivity list in order to limit the effectivity to the aircraft serial number 9492. Considering the introduction of a permanent solution on production aircraft.

The Advisory Wire at Rev. 1 was issued to inform Operators of a potential chafing condition where the Variable Frequency Generator (VFG) #4 feeder cables may chafe on the engine cowling door, and the recent release of the corrective engineering disposition (in-service Modsum ISMS700-24-0009, Ref. 1.1).

3. DESCRIPTION:

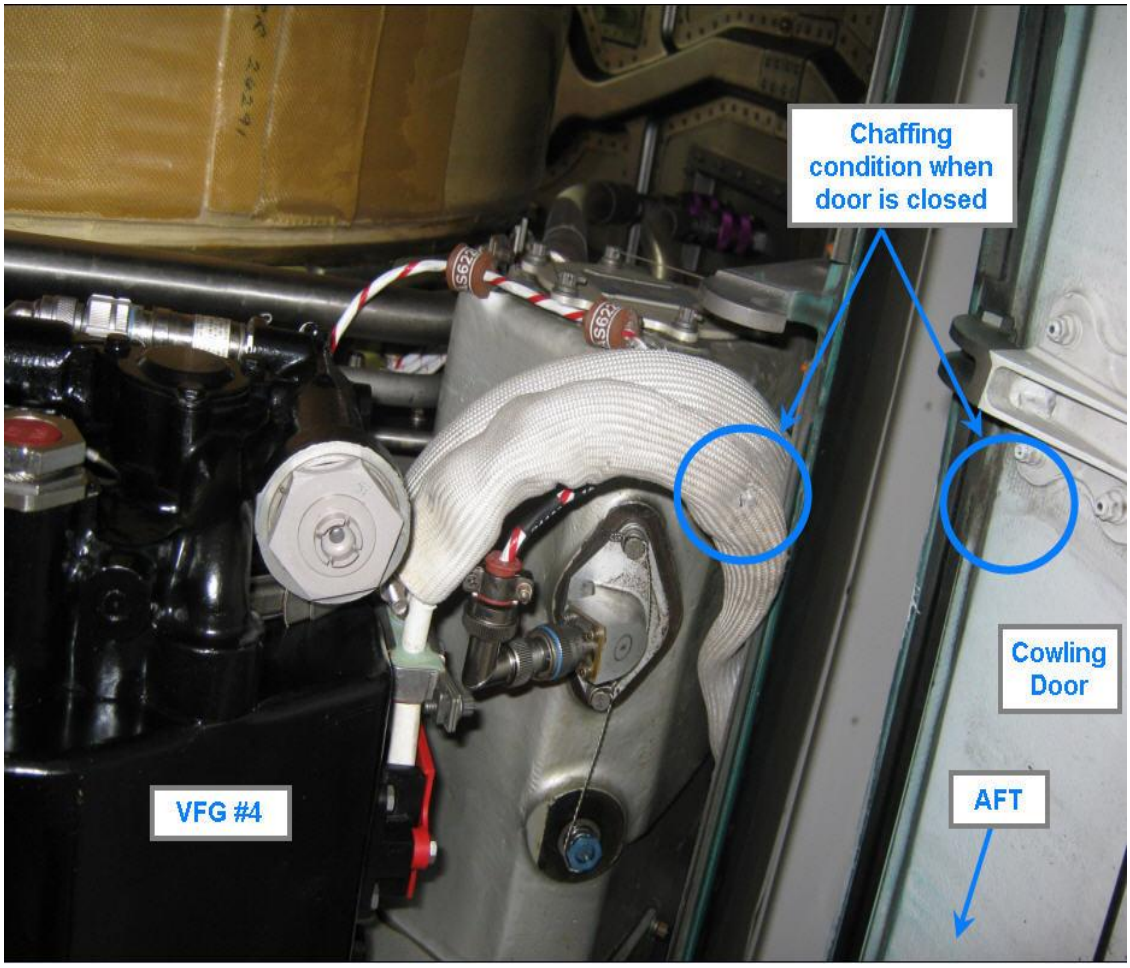
Bombardier has been made aware of three recent events where Operators have found the white VFG feeder cable and its protection sleeve damaged due to contact with the cowling door in closed position.

In two cases reported, the crew experienced a GEN 4 FAIL message posted on the EICAS during ground operation. The damaged feeder cable was found during troubleshooting by a visual inspection. It was determined that the high current generated by the contact of the feeder cable with the cowling door resulted in the Generator Control Unit (GCU) tripping the VFG offline without allowing it to reset.

In the third reported case, the damaged feeder cable was detected during a visual inspection of the engine area. The extent of the damage was limited to the protection sleeve and the first layer of the cable insulation. Repair instructions were provided to the Operator via Service Request for Product Support Action (SRPSA).

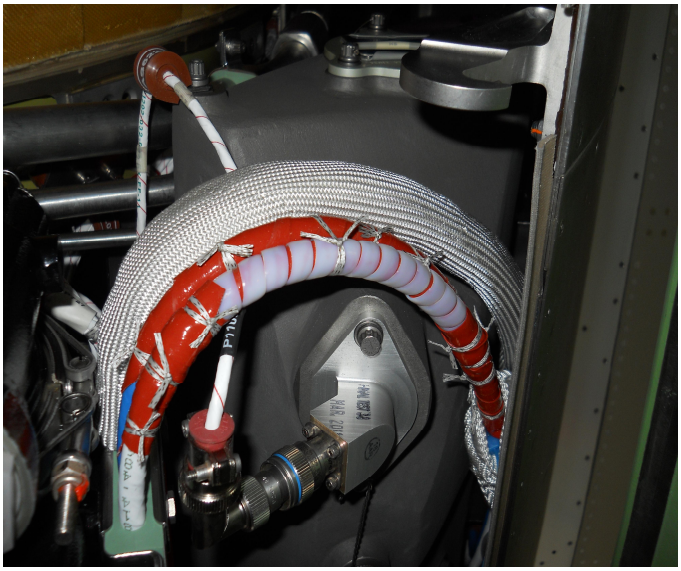
This condition is limited to the VFG power feeder cables routed in lower position which connects with the VFG in position #4 (right-hand engine, inboard position). The clearance between the cowling door and the power

feeder cables are reduced in position #4 when compared to other positions due to the cowling door shape and the hinge installed in this area.

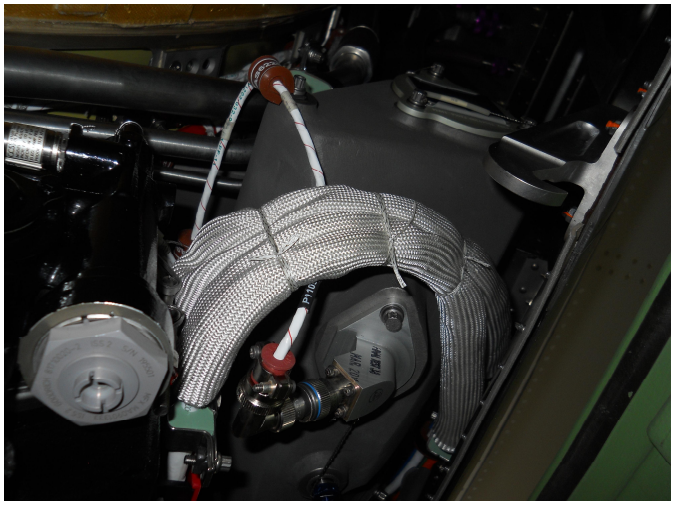


Bombardier has conducted an investigation which has revealed an inconsistency in the length of VFG-connecting cables during the manufacturing process. This variability could slightly modify the cables' routing path, resulting in a clearance reduction between the VFG cables and the cowling door. To rectify this situation, Bombardier released an In-Service Modsum (Ref. 1.1) which consists of installing silicone tape and Spirap in addition to the existing white protection sleeves (see picture 1). The four cables will then be attached together with lacing cord in order to maximize the clearance between the cables and the cowling door (see picture 2).

To eliminate the potential chafing condition during production, the cables' installation process has been reviewed and modified in order to tighten the cables' length tolerances. The new tolerances have been introduced in production at aircraft 9493.



Picture 1: Final installation without the existing white sleeve



Picture 2: Final installation

4. ACTION:

Bombardier recommends the In-Service Modsum (Ref. 1.1) incorporation, should the operator experienced chafing condition on the VFG #4 feeder cables.

If damage is found to the cables' insulation layer, operators shall request repair disposition by submitting a Service Request Product Support Action (SRPSA).

Should you have any technical queries pertaining to this Advisory Wire, please contact your Field Service Representative.