

# SERVICE BULLETIN SUMMARY

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MODEL BD-700-1A10 (BD-700)

ATA 27-51

FLIGHT CONTROLS

**MODIFICATION – CONTROL AND INDICATION SYSTEMS –  
 REPLACEMENT OF SFCU WITH PART NO. GT415-5900-17**

The information below is provided for your reference. For full details, please see corresponding paragraph contained within this bulletin.

<b>RECOMMENDED</b>	<b>COMPLIANCE TIME</b>		
RELIABILITY/DISPATCHABILITY/COST AVOIDANCE	Not applicable		
<b>EFFECTIVITY:</b>			
A/C Serial No. <b>9002</b> to <b>9312</b> and <b>9314</b> to <b>9317</b>			
<b>MANPOWER:</b> 4 man-hours (Method A). 6 man-hours (Method B).			
<b>KITS and/or PARTS</b>	<b>YES</b>	<input checked="" type="checkbox"/>	<b>NO</b> <input type="checkbox"/>
<b>TOOLING/GSE</b>	<b>YES</b>	<input checked="" type="checkbox"/>	<b>NO</b> <input type="checkbox"/>
<b>PLANNING INFORMATION:</b> See important information at the start of Paragraph 1.	<b>YES</b>	<input checked="" type="checkbox"/>	<b>NO</b> <input type="checkbox"/>
<b>DEDICATED SCHEDULE</b>	<b>YES</b>	<input checked="" type="checkbox"/>	<b>NO</b> <input type="checkbox"/>
<b>PREREQUISITE BULLETINS:</b>			
SB 700-27-050, Basic Issue or Revision 01, is a prerequisite for Method A and must be done before or at the same time as this Service Bulletin.			
SB 700-27-050, Revision 01, is a prerequisite for Method B and must be done before this Service Bulletin.			

To place an order for parts or kits, please call Bombardier Aerospace Parts Logistics at:

514-855-2999 or 1-866-538-1247

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FLIGHT CONTROLS

**MODIFICATION – CONTROL AND INDICATION SYSTEMS –  
REPLACEMENT OF SFCU WITH PART NO. GT415-5900-17**

## 1. PLANNING INFORMATION

- NOTES:
1. SB 700-27-050, Basic Issue or Revision 01, is a prerequisite for Method A and must be done before or at the same time as this Service Bulletin.
  2. SB 700-27-050, Revision 01, is a prerequisite for Method B and must be done before this Service Bulletin.
  3. Method A, applicable to aircraft with SFCUs Part No. GT415-5900-15, requires that the removed SFCU be sent to Bombardier Aerospace in exchange for a software-upgraded unit.
  4. Method B, applicable only to aircraft with SFCUs Part No. GT415-5900-15 with Mod Dot 14 or subsequent marked on the identification plate, requires that the removed SFCUs have their software upgraded at Bombardier Aerospace Completion Centers, Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF) or locally by Bombardier authorized personnel, trained by Hamilton Sundstrand.

Refer to applicable governmental agency regulations and requirements and make sure that the work described in this Service Bulletin is performed in compliance with manufacturer's recommendations and/or acceptable industry standards.

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**A. Effectivity**

BD-700-1A10 aircraft, Serial No. **9002** to **9312** and **9314** to **9317**

The intent of this Service Bulletin may have been met on the aircraft that follow with the In-Service Modsum listed below. Operators should examine their log book to see if there is an entry for Modsum IS700-27-0001:

<b>AIRCRAFT SERIAL NO.</b>	<b>IN-SERVICE MODSUM</b>
<b>9270</b>	IS700-27-0001
<b>9272</b>	IS700-27-0001
<b>9274</b>	IS700-27-0001
<b>9276 to 9278</b>	IS700-27-0001
<b>9281</b>	IS700-27-0001
<b>9284</b>	IS700-27-0001
<b>9286</b>	IS700-27-0001
<b>9290</b>	IS700-27-0001
<b>9291</b>	IS700-27-0001

All other subsequent BD-700-1A10 aircraft are scheduled for the modification in production (Ref.: Modification Summary 700T900724).

**NOTE:** The instructions given in this Service Bulletin are only applicable to the systems and parts installed at the time of delivery of the aircraft or as changed by Bombardier Aerospace Service Bulletin(s).

Before you do this bulletin, examine all STC, STA or equivalent action changes to make sure that this bulletin can be completed.

## **B. Reason**

This Service Bulletin introduces software changes to the Slat/Flap Control Units (SFCU) to improve reliability and reduce unnecessary maintenance.

The main software changes are:

- Modifications to help eliminate nuisance latched, mechanical disconnect messages on the Central Aircraft Information Maintenance System (CAIMS) and of SLAT/FLAP HALF SPEED or SLAT/FLAP FAIL messages on the Engine Indication and Crew Alerting System (EICAS). These latched faults were a source of reduced dispatch reliability and unnecessary maintenance.
- Modification to the software Power-up Built-In Test (PBIT) procedure to remove nuisance SLAT FAULT or FLAP FAULT messages when the SFCU is exposed to more than one power-up brake test with the aircraft on the ground and there is no surface motion command.
- Modification to the software for the power-up asymmetry brake test to prevent torque tube preload between PBIT completion and selection of the Slat/Flap Control Lever (SFCL). This will eliminate the problems encountered when maintenance is done on the drive system.
- Changes to timeout periods and fault recognition criteria in the fault monitor logic to provide more robustness to the associated over-speed detection monitor. This will prevent nuisance surface over-speed messages and reduce sensitivity to noise.
- Modification to incorporate Linear Variable Differential Transformer (LVDT) and Rotary Variable Differential Transformer (RVDT) calibration constants for hardware variance to make sure that no rigging errors are introduced during auto-rig functions. Before, auto-rigging problems caused by LVDT or RVDT variations from SFCU to SFCU were leading to the rejection of SFCUs upon initial installation.
- Addition of new fault codes for intermittent slat and flap resolver wiring anomalies to be identified and reported through CAIMS for maintenance action.

These improvements will save maintenance time and costs and will minimize aircraft downtime.

This Service Bulletin may be accomplished by Method A or Method B if the appropriate prerequisite Service Bulletin is met.

### **C. Description**

This Service Bulletin gives instructions in:

#### **Method A to:**

- Get access to the SFCUs in the main avionics compartment,
- Remove the old SFCUs and send them for an upgrade,
- Install the upgraded SFCUs, and
- Do the necessary tests to make sure the SFCUs operate correctly.

#### **Method B to:**

- Get access to the SFCUs in the main avionics compartment,
- Remove the old SFCUs and get the software upgrade done,
- Install the upgraded SFCUs, and
- Do the necessary tests to make sure the SFCUs operate correctly.

### **D. Compliance**

Recommended

**NOTE:** This Service Bulletin is in reference to Advisory Wires AW700-27-0171 and AW700-27-0203.

### **E. Approval**

The technical content of this Service Bulletin has been approved under the authority of Transport Canada Civil Aviation (TCCA) Design Approval Organization (DAO) No. DAO #93-Q-02.

- NOTES:**
1. The technical content of this Service Bulletin is accepted by the FAA under the Canada/USA bilateral Aviation Safety Agreement.
  2. The technical content of this Service Bulletin is accepted by the JAA and by EASA in accordance with established procedures.

## **F. Manpower**

NOTES: 1. The man-hours given are estimates to help you schedule the tasks given in this bulletin. The estimates are for direct labor performed by an experienced crew and do not include the time for familiarization, planning, aircraft preparation in hangar such as towing and positioning of scaffolds, removal of interior furnishings, repainting, supervision and inspection.

For more information related to the manpower estimates, refer to SB 700-00-002.

2. This Service Bulletin may require consumable materials that have specific curing times (refer to Paragraph 3.). The accumulated curing time is not included in the labor estimates and should be considered for planning purposes before you schedule this Service Bulletin.

4 man-hours are necessary to do Method A of this modification.

6 man-hours are necessary to do Method B of this modification.

The labor required to do this Service Bulletin is at no cost if:

- (i) the work is done at Bombardier Business Aviation Services (BBAS) or Authorized Service Facilities (ASF), and
- (ii) this Service Bulletin is scheduled before August 03, 2011.

**G. Material - Cost and Availability**

**Method A** (All SFCUs Part No. GT415-5900-15):

Two SFCUs, Part No. GT415-5900-17 and cotter pins are necessary to do Method A of this modification and are available at no cost if a no-charge purchase order is sent to Bombardier Aerospace before August 03, 2011.

Send the old SFCUs, Part No. GT415-5900-15, to the address shown below in exchange for -17 SFCUs:

Bombardier Aerospace Parts Logistics Center  
Wichita Distribution Center,  
7761 W. Kellog, Bldg 11, Dock 3,  
Wichita, KS 67209-0000  
USA

- NOTES:**
1. Bombardier Aerospace is maintaining a rotatable pool of exchange SFCUs to be supplied to the operator under the terms and conditions given below:
    - Operators must send the old SFCUs, Part No. GT415-5900-15 to the Bombardier Aerospace Parts Logistics Center, within 10 days of receipt of replacement units, with documentation showing the serial number of the aircraft. The old SFCUs must be in a serviceable condition.
    - If the removed SFCUs are not returned in less than 10 days, the operator will be charged for the replacement units.
  2. On the no-charge purchase order, write "For incorporation of Service Bulletin 700-27-061".

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**Method B** (SFCUs Part No. GT415-5900-15 with Mod Dot 14):

The part in Paragraph 3.B. is necessary to do Method B of this modification.

Bombardier service center personnel, trained by Hamilton Sundstrand, may accomplish the software upgrade of the SFCU, Part No. GT415-5900-15, Mod Dot 14 in this Service Bulletin with the Hamilton Sundstrand supplied tooling at no cost until August 03, 2011.

Bombardier authorized personnel, trained by Hamilton Sundstrand, may accomplish the software upgrade of the SFCU, Part No. GT415-5900-15, Mod Dot 14 locally and will supply the necessary tooling at no cost until August 03, 2011. Refer to Hamilton Sundstrand Service Bulletin FAS02C-27-15.

This Service Bulletin is covered by a dedicated campaign. To ensure a timely and effective return/upgrade program, advance scheduling is required. Please contact your Regional Manager (RM), Field Service Representative (FSR), Customer Support Representative (CSR) or Customer Services Account Manager (CSAM) as soon as is practical to schedule your aircraft.

For those aircraft in new aircraft warranty at this Service Bulletin release date, Smart Parts Plus does not pay for the SFCUs exchange or the software upgrade at any time.

For those aircraft out of new aircraft warranty at this Service Bulletin release date, Smart Parts Plus pays either for the SFCUs exchange as given in Method A or the software upgrade as given in Method B for up to one year from this Service Bulletin release date. All operators must follow the scheduling instructions given in this Service Bulletin.

Smart Parts Plus does not pay for any parts or charges related to late returns of the removed SFCUs in the case of Method A.

**H. Tooling - Price and Availability**

<b>GSE REFERENCE NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
<b>For All Aircraft</b>		
27X-11-03 or acceptable equivalent (See NOTE 2)	-	Kit, Rigging Pins
27X-53-03	-	Flap/Slat Drive Adapter

<b>GSE REFERENCE NO.</b>	<b>PART NO.</b>	<b>DESCRIPTION</b>
<b>For Method B Only</b>		
-	Commercially Available	Pentium Class Personal Computer (PC) with a standard RS-232 Port
-	Commercially Available	Operating System: Microsoft ® Windows © 98 or 2000 or XP (See NOTE 3)
-	AGE15920 (See NOTE 4)	Skew and SFCL Extend/ Retract Adapter (Printed Wiring Board (PWB) Assembly)
-	AGE13684A (See NOTE 4)	Field Software Tool Assembly
-	AGE15971 (See NOTE 4)	Field Software Tool with Gain and Offset (CDROM)

- NOTES:**
1. Refer to the Global Express or Global Express XRS BD-700 Illustrated Tool and Equipment Manual to make sure you use the correct equipment configuration.
  2. Refer to the Liability Statement of the publication listed in NOTE 1 for acceptable GSE equivalents.
  3. At least 256 megabytes of Random Access Memory (RAM) and 40 megabytes of disk storage are necessary.
  4. This Hamilton Sundstrand tooling will be available upon request on a loan basis at the address that follows:

Hamilton Sundstrand  
 Matt Miedwig, Service Engineer  
 4747 Harrison Avenue, P.O. Box 7002  
 Rockport, IL 61125-7002  
 Tel.: (815) 394-5435 or (815) 226-6000  
 Fax: (860) 622-7428  
 E-mail: [mattew.miedwig@hs.utc.com](mailto:mattew.miedwig@hs.utc.com)

**I. Weight and Balance**

No change.

**J. Electrical Load Data**

No change.

**K. References**

- Bombardier Aerospace, Modification Summary, 700T02361, Rev. A3.
- Bombardier Aerospace, Modification Summary, 700T900724, Rev. A2.
- Bombardier Aerospace, SB 700-27-050  
"Modification – Control and Indication Systems – Slat/Flap Control Unit (SFCU) Upgrade to GT415-5900-15".
- Bombardier Aerospace, SB 700-45-008  
"Modification – Central Aircraft Information Maintenance System (CAIMS) – Introduction of Portable Maintenance Access Terminal (PMAT) Version 7.1 to Support Post Full Functionality Certification".
- Bombardier Aerospace, SB 700-45-009  
'Modification – Central Aircraft Information Maintenance System (CAIMS) – Introduction of Portable Maintenance Access Terminal (PMAT) Software Version 7.3'.
- Hamilton Sundstrand, Service Bulletin FAS02C-27-15,  
"Flight Controls – Slat Flap Control Unit – Upgrade Software" (attached).
- Global Express BD-700 Aircraft Maintenance Manual, Chapters 6, 20, 24, 27, 45, 52 and 53.
- Global Express BD-700 Aircraft Illustrated Parts Catalog (AIPC), Chapter 53.
- Global Express BD-700 Illustrated Tool and Equipment Manual (ITEM), Chapter 27.
- Global Express XRS BD-700 Aircraft Maintenance Manual, Chapters 6, 20, 24, 27, 45, 52 and 53.
- Global Express XRS BD-700 Aircraft Illustrated Parts Catalog (AIPC), Chapter 53.
- Global Express XRS BD-700 Illustrated Tool and Equipment Manual (ITEM), Chapter 27.

**L. Other Publications Affected**

- Global Express BD-700 Aircraft Illustrated Parts Catalog (AIPC), Chapter 27.
- Global Express XRS BD-700 Aircraft Illustrated Parts Catalog (AIPC), Chapter 27.

**M. Equivalent Service Bulletin**

For the Global 5000 BD-700-1A11 aircraft, use SB 700-1A11-27-018.

## 2. ACCOMPLISHMENT INSTRUCTIONS

- NOTES:**
1. All TASKs given in the procedures that follow are from the Global Express or Global Express XRS Aircraft Maintenance Manual unless otherwise specified.
  2. All references made to zones, access panels and/or doors, are from the Global Express or Global Express XRS Aircraft Maintenance Manual, Chapter 6.

### A. Aircraft Setup

- (1) Obey all electrical/electronic safety precautions. Refer to TASK 24-00-00-910-801.
- (2) Set the circuit breakers that follow to IN (refer to TASK 24-00-00-863-802).

SYSTEM NAME	CIRCUIT BREAKER NAME	BUS NAME
FLT CONTROL	SLAT/FLAP CTRL 1	BATT
FLT CONTROL	SLAT/FLAP CTRL 2	DC ESS

- (3) Make sure the circuit breakers that follow are closed:

LOCATION	CB NO.	NAME	ZONE
CCBP	G9	SLAT/FLAP PWR 1	222
CCBP	E2	SLAT/FLAP PWR 2	222

- (4) Connect and energize the external ac power. Refer to TASK 24-41-00-861-801.
- (5) Do a full cycle of the slats/flaps from IN/0 degree to OUT/30 degrees and back to IN/0 degree.
- (6) Remove the external ac power. Refer to TASK 24-41-00-861-802.
- (7) Set the circuit breakers that follow to OUT (on aircraft pre SB 700-24-045) or LOCKED (on aircraft, Serial No. 9123 and subsequent or aircraft post SB 700-24-045) (refer to TASK 24-00-00-863-801):

SYSTEM NAME	CIRCUIT BREAKER NAME	BUS NAME
FLT CONTROL	SLAT/FLAP CTRL 1	BATT
FLT CONTROL	SLAT/FLAP CTRL 2	DC ESS

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- (8) Open and tag the circuit breakers that follow:

LOCATION	CB NO.	NAME	ZONE
CCBC	G9	SLAT/FLAP PWR 1	222
CCBP	E2	SLAT/FLAP PWR 2	222

- (9) Remove the forward belly fairing access panel 181BB. Refer to TASK 53-61-19-000-801.
- (10) Install the applicable warning tags on the SLAT/FLAP control lever and near the slat and flap panels.
- (11) Remove the external avionics-compartment access panel 140BB. Refer to TASK 52-45-11-000-801.
- (12) Remove the aft panel assemblies (85), (90), (130) and (135) of the Main Landing Gear (MLG) wheel bins 165AZ and 166AZ. Refer to IPC Chapter 53-30-01.

**B. Modification - Method A**

**CAUTION:** OBEY ALL ELECTROSTATIC DISCHARGE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) COMPONENTS. STATIC VOLTAGE CAN CAUSE DAMAGE TO ESDS COMPONENTS.

- (1) Obey all electrostatic discharge safety precautions. Refer to TASK 24-00-00-910-802.
- (2) Remove the two SFCUs, Part No. GT415-5900-15. Refer to TASK 27-51-05-000-801.
- (3) Send the removed SFCUs to the address shown in Paragraph 1.G. in exchange for upgraded units.
- (4) Install the two upgraded SFCUs, Part No. GT415-5900-17. Refer to TASK 27-51-05-400-801.

**NOTE:** Do not do the operational test of the slat/flap control system as given in TASK 27-51-05-400-801. An operational test will be performed after the rigging procedure included in this Service Bulletin.

**C. Modification - Method B**

**CAUTION:** OBEY ALL ELECTROSTATIC DISCHARGE SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON ELECTROSTATIC DISCHARGE SENSITIVE (ESDS) COMPONENTS. STATIC VOLTAGE CAN CAUSE DAMAGE TO ESDS COMPONENTS.

- (1) Obey all electrostatic discharge safety precautions. Refer to TASK 24-00-00-910-802.
- (2) Remove the old SFCUs, Part No. GT415-5900-15 with Mod Dot 14. Refer to TASK 27-51-05-000-801.
- (3) On a bench, get the software of the two SFCUs upgraded by trained Bombardier service personnel or under the supervision of an authorized Hamilton Sundstrand representative with reference to Hamilton Sundstrand Service Bulletin FAS02C-27-15.
- (4) Install the two upgraded SFCUs, Part No. GT415-5900-17. Refer to TASK 27-51-05-400-801.

**NOTE:** Do not do the operational test of the slat/flap control system as given in TASK 27-51-05-400-801. An operational test will be performed after the rigging procedure included in this Service Bulletin.

**D. Testing**

- (1) Set the circuit breakers that follow to IN (refer to TASK 24-00-00-863-802):

SYSTEM NAME	CIRCUIT BREAKER NAME	BUS NAME
FLT CONTROL	SLAT/FLAP CTRL 1	BATT
FLT CONTROL	SLAT/FLAP CTRL 2	DC ESS

- (2) Connect and energize the external ac power. Refer to TASK 24-41-00-861-801.
- (3) Do the steps that follow to start the CAIMS:
  - (a) Follow the CAIMS PMAT general instructions to start the CAIMS PMAT. Refer to TASK 45-45-00-970-801.

**NOTES:**

1. For aircraft, POST SB 700-45-008 (CAIMS 7.1), make sure that the database revision Condor .029 has been downloaded.
2. For aircraft, POST SB 700-45-009 (CAIMS 7.3), make sure that the database revision Merlin .031 or later has been downloaded.

- (b) On the CAIMS PMAT, click two times on the CAIMS icon to start the CAIMS.
- (4) On the CAIMS PMAT, get access to system diagnostics. Refer to TASK 45-45-00-970-804.

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- (5) Wait 30 seconds until the power-up sequence is completed and continue as follows:
- (a) Select the VIEW menu.
  - (b) Select the ENVIRONMENT SETTINGS.
  - (c) On the Transmission Info/Aircraft, S/N display, make sure the correct identification number is shown.
  - (d) If the aircraft identification is not correct, put the correct aircraft identification number in CAIMS. Refer to TASK 45-45-00-970-823.

**CAUTION:** DO NOT OPERATE THE SLAT SYSTEM WITH THE LEADING EDGE PANELS REMOVED OR PARTIALLY REMOVED. IF YOU DO THIS, YOU CAN CAUSE DAMAGE TO THE SLAT SYSTEM.

- (6) Do the rigging of the slat system as follows:
- (a) In the CAIMS PMAT, do as follows:
    - (i) Go to SYSTEM DIAG to get ATA SELECTION DISPLAY page (1/2).
    - (ii) Go to ATA 27-00 FLIGHT CONTROLS to get the LRU SELECTION PAGE.
    - (iii) Go to SLAT/FLAP CONTROL UNIT #1 to get the STORED FAULTS DISPLAY/LRU TEST page.
    - (iv) Go to LRU TEST to get the SFCU 1 LRU TEST MENU 1/1.
    - (v) Go to SLAT RIGGING – SFCU 1 to get the SFCU 1 SLAT RIGGING – PAGE 1/4 screen.
    - (vi) Go to CONFIRM to get the SFCU 1 SLAT RIGGING – PAGE 2/4 screen.
    - (vii) Go to SLAT RIG ENABLE COMMAND and push SELECT.
    - (viii) The indications LEFT/RIGHT SLAT RESOLVER (DEG) should show  $20.0 \pm 10.0$  degrees.
  - (b) Put reference marks on the left hand or right hand torque tube and on the adjacent pad to record the initial position of the torque tube. Refer to Figure 1.

**NOTE:** Make sure to use a non-metallic marker (e.g. Sharpie pen), to avoid damage to the torque tube.

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- (c) In the CAIMS PMAT, continue as follows:
- (i) Go to RELEASE R SLAT ABRAKE.
  - (ii) Go to SELECT.
  - (iii) Go to RELEASE L SLAT ABRAKE.
  - (iv) Go to SELECT.
  - (v) Go to RELEASE R SLAT MOTOR BRAKE.
  - (vi) Go to SELECT.
  - (vii) Go to RELEASE L SLAT MOTOR BRAKE.
  - (viii) Go to SELECT.
- (d) Retract the slats panels by manually rotating the torque tube until you reach the mechanical stop and record the number of turns required. Refer to Figure 1 for rotation direction.
- NOTE: The mechanical stop must be reached within 0.5 to 1.5 turns from the reference marks previously made.
- (e) Return the torque tube to the initial position.
- (f) Measure the step between the leading edge of the No. 1 slat panel and the wing fixed leading edge. Refer to Figure 2.
- (g) If the step between the leading edge of the No. 1 slat panel and the wing fixed leading edge is greater than 0.060 in (1.52 mm), do as follows, if it is less go to the next step (h):
- (i) Manually rotate the torque tube until the step between each leading edge of the No. 1 slat panel and the wing fixed leading edge is 0.060 in (1.52 mm) or less and record the number of turns required.
- NOTE: The new reference position must remain within 0.5 to 1.5 turns from the mechanical stop.
- (ii) If the step requirement cannot be obtained within 0.5 to 1.5 turns from the mechanical stop, refer to TASK 27-53-00-820-801.
- (h) Make sure the LEFT/RIGHT SLAT RESOLVER (DEG) indications show 20.0 degrees  $\pm$  10.0 degrees.

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- (i) In the CAIMS PMAT, continue the rigging of the slat panels as follows:
  - (i) Go to ENGAGE R SLAT ABRAKE.
  - (ii) Go to SELECT.
  - (iii) Go to ENGAGE L SLAT ABRAKE.
  - (iv) Go to SELECT.
  - (v) Go to ENGAGE R SLAT MOTOR BRAKE.
  - (vi) Go to SELECT.
  - (vii) Go to ENGAGE L SLAT MOTOR BRAKE.
  - (viii) Go to SELECT.
  - (ix) Go to SLAT RIG COMMAND.
  - (x) Go to SELECT.
  - (xi) SLAT RESOLVER LH & RH readings should go to 0.0 degrees  $\pm$  0.1 degrees.
  - (xii) Go to CONFIRM to get the SFCU1 SLATS RIGGING – PAGE 3/4 screen.
- (j) On the SFCU1 SLATS RIGGING – PAGE 3/4 screen, make sure you get the indication that follows:
  - (i) LATCHED SLAT FAULT = FALSE.
- (k) If the LATCHED SLAT FAULT = TRUE, do as follows:
  - (i) Go to CLEAR LATCHED FAULT.
  - (ii) Go to SELECT.
- (l) Go to CONFIRM to get the SFCU1 SLATS RIGGING – PAGE 4/4 screen.
- (m) On the SFCU1 SLATS RIGGING – PAGE 4/4 screen, make sure you get the indications that follow:
  - (i) SLAT RIG REQUIRED = FALSE.
  - (ii) OFFSIDE SLAT RIG REQUIRED = FALSE.
- (n) Go to TEST CMPLT to get the SFCU 1 LRU TEST MENU 1/1.

- (7) Do the rigging of the flap system as follows:
- (a) On the CAIMS PMAT, do as follows:
- (i) Go to FLAPS RIGGING - SFCU 1 to get the SFCU1 FLAPS RIGGING – PAGE 1/4 screen.
  - (ii) Go to CONFIRM to get the SFCU1 FLAPS RIGGING – PAGE 2/4 screen.
  - (iii) Go to FLAP RIG ENABLE COMMAND and push SELECT.
  - (iv) Make sure the LEFT and the RIGHT FLAP RESOLVER (DEG) indications are 20.0 degrees  $\pm$ 10.0 degrees.
  - (v) Go to RELEASE R FLAP ABRAKE.
  - (vi) Go to SELECT.
  - (vii) Go to RELEASE L FLAP ABRAKE.
  - (viii) Go to SELECT.
  - (ix) Go to RELEASE R FLAP MOTOR BRAKE.
  - (x) Go to SELECT.
  - (xi) Go to RELEASE L FLAP MOTOR BRAKE.
  - (xii) Go to SELECT.
- (b) Insert a rigging pin in the rigging holes of the left and right flap panels and flap tracks to make sure that they align. If an alignment cannot be obtained, refer to TASK 27-52-00-820-801.
- NOTE: You may have to manually retract or extend the flap panel to fit the rig pin in the left and right rigging holes.
- (c) On the CAIMS PMAT, continue the rigging as follows:
- (i) Go to ENGAGE R FLAP ABRAKE.
  - (ii) Go to SELECT.
  - (iii) Go to ENGAGE L FLAP ABRAKE.
  - (iv) Go to SELECT.
  - (v) Go to ENGAGE R FLAP MOTOR BRAKE.
  - (vi) Go to SELECT.
  - (vii) Go to ENGAGE L FLAP MOTOR BRAKE.
  - (viii) Make sure the LEFT and the RIGHT FLAP RESOLVER (DEG) indications are 20.0 degrees  $\pm$ 10.0 degrees.
  - (ix) Go to FLAP RIG COMMAND.
  - (x) Go to SELECT.
  - (xi) FLAP RESOLVER LH & RH readings should go to 0.0 degrees  $\pm$  0.1 degrees.

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- (d) Go to CONFIRM to get the SFCU1 FLAPS RIGGING – PAGE 3/4 screen.
  - (e) On the SFCU1 FLAPS RIGGING – PAGE 3/4 screen, make sure you get the indications that follow:
    - (i) LATCHED FLAP FAULT = FALSE.
    - (ii) LATCHED SLAT FAULT = FALSE.
    - (iii) FAULTS = NO FAULTS.
  - (f) If the LATCHED FLAP FAULT = TRUE, do as follows:
    - (i) Go to CLEAR LATCHED FAULT.
    - (ii) Go to SELECT.
  - (g) Go to CONFIRM to get the SFCU1 FLAPS RIGGING – PAGE 4/4 screen.
  - (h) On the SFCU1 FLAPS RIGGING – PAGE 4/4 screen, make sure you get the indications that follow:
    - (i) ONSIDE FLAP RIG REQUIRED = FALSE.
    - (ii) OFFSIDE FLAP RIG REQUIRED = FALSE.
  - (i) Remove the rigging pin from the rigging holes of the left and right flap panels and flap tracks.
  - (j) Push TEST COMPLT to go out of the rigging.
- (8) Remove the tags and close the circuit breakers that follow:

LOCATION	CB NO.	NAME	ZONE
CCBP	G9	SLAT/FLAP PWR 1	222
CCBP	E2	SLAT/FLAP PWR 2	222

- (9) Do the operational test of the slat/flap control system. Refer to TASK 27-51-00-710-801.
- NOTE:** If a SLATS FAULT and/or FLAPS FAULT are posted on the EICAS after the electrical power is applied to the aircraft, move the slats/flaps from IN/0 degree to OUT/6 degrees and back to IN/0 degree to remove the fault message(s).
- (10) Remove the external ac power. Refer to TASK 24-41-00-861-802.

**E. Close-out**

- (1) Remove all tools, equipment and unwanted materials from the aircraft.
- (2) Remove the warning tags previously installed.
- (3) Install the forward belly fairing access panel 181BB. Refer to TASK 53-61-19-400-801.
- (4) Install the external avionics-compartment access panel 140BB. Refer to TASK 52-45-11-400-801.
- (5) Install the aft panel assemblies (85), (90), (130) and (135) of the Main Landing Gear (MLG) wheel bins 165AZ and 166AZ. Refer to IPC Chapter 53-30-01.

**F. Recording**

When this Service Bulletin is completed, make an entry in the aircraft log and send the attached Incorporation Notice to Bombardier Business Aircraft Customer Services (BBACS).

**3. MATERIAL INFORMATION**

**A. Kit**

No kits required.

**B. Parts**

**Method A**

The parts that follow are necessary to do Method A of this Service Bulletin and can be purchased from Bombardier Aerospace Parts Logistics, Montréal:

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
GT415-5900-17	2	SFCU	GT415-5900-15	Refer to Paragraph 1.G.
MS24665-69	6	Cotter Pin	MS24665-69	Discard

**Method B**

Only the part that follows is necessary to do Method B of this Service Bulletin.

NEW PART NO.	QTY	ITEM	USED PART NO.	INSTRUCTIONS - DISPOSITION
MS24665-69	6	Cotter Pin	MS24665-69	Discard

**NOTE:** The part numbers for the items listed above are subject to change without revision to this Service Bulletin. In case of discrepancy between this list and any other list, the Illustrated Parts Catalog prevails and shall be used to determine the latest part number.

**C. Material**

The materials that follow, or equivalent, are necessary to do this Service Bulletin. These can be purchased from a local supplier: Bombardier Aerospace does not pay for these consumables:

DESCRIPTION	PART No./NAME	SPECIFICATION	QUANTITY	SUPPLIER (See Note)
Grease	Aeroshell 7	MIL-PRF-23827 Type II	As Necessary	Code: A
Sealant CT: 30 hrs	Pro-Seal 870	MIL-PRF-81733, Type II	As Necessary	Code: B

- NOTES:**
1. Refer to the table that follows for each supplier's address listed by codes.
  2. The Curing Time (CT), if applicable, for each consumable material is indicated with the description of each product.
  3. At time of release of this Service Bulletin, the information on the supplier was valid and accurate. In the event that this information has changed, the operator is encouraged to use the World Wide Web to find a local supplier.

<b>SUPPLIERS ADDRESSES BY CODES</b>	
<b>Code: A</b>  Shell Canada Limited 400, 4 <sup>th</sup> Avenue S. W. Calgary, Alberta Canada T2P 0J4 Tel.: 1-800-661-1600 Web Site: <a href="http://www.shell.ca">www.shell.ca</a>	<b>Code: B</b>  PRC-Desoto International 5454 San Fernando Road Glendale, CA, 91209 U.S.A. Tel.: 1-800-228-5635 Tel.: (818) 240-2060 Web Site: <a href="http://www.ppg.com/prc-desoto">www.ppg.com/prc-desoto</a>

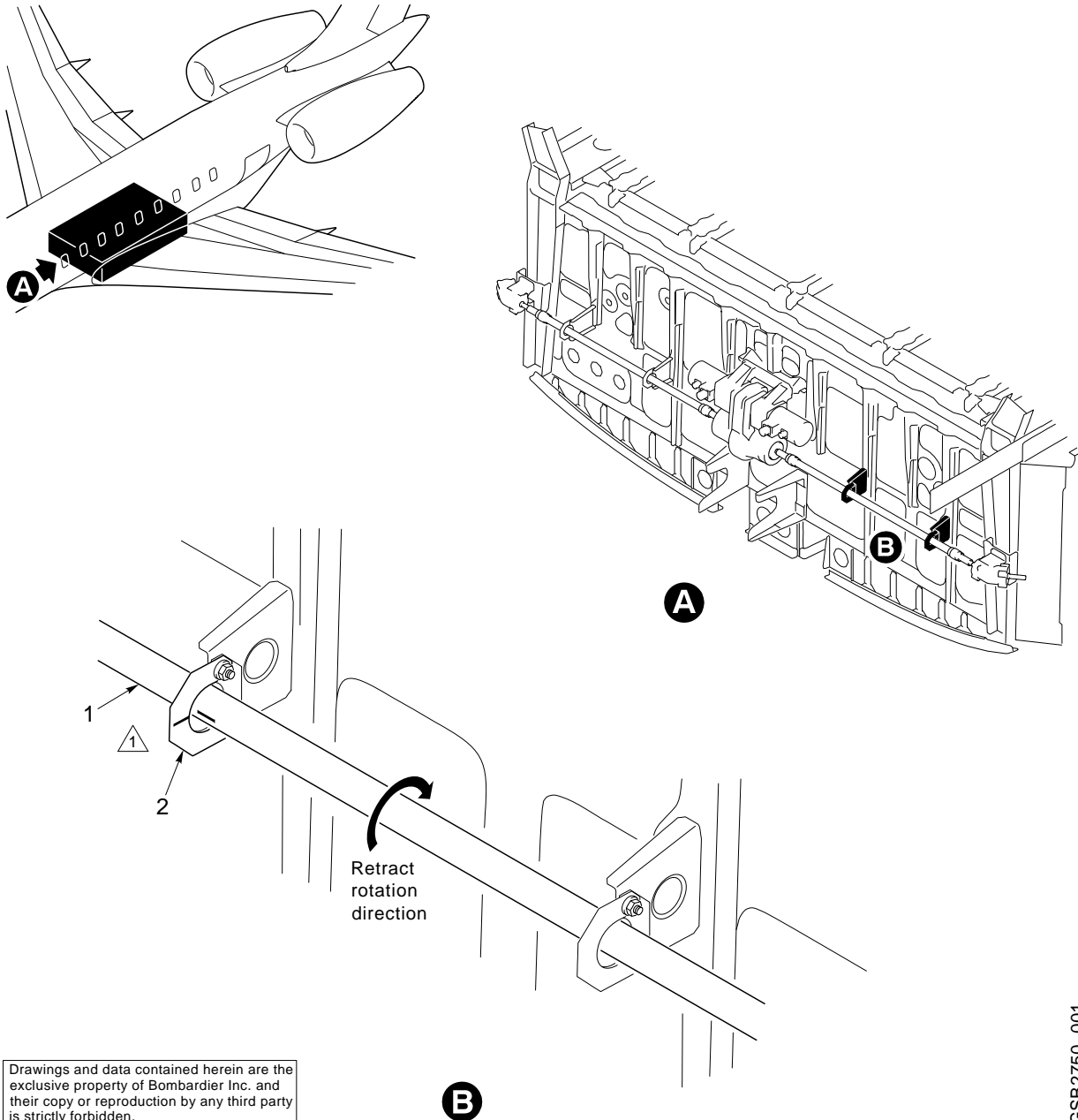
**D. Publications**

No publications required.

**BOMBARDIER**  
**GLOBAL EXPRESS**  
**BOMBARDIER**  
**GLOBAL EXPRESS<sup>XRS</sup>**  
MODEL BD-700-1A10 (BD-700)

**STEP 1** 

Put a reference mark on the torque tube (1) and on the adjacent pad (2).

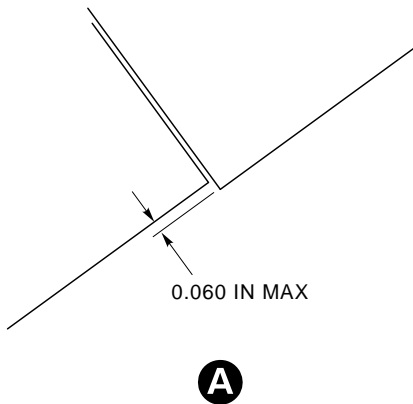
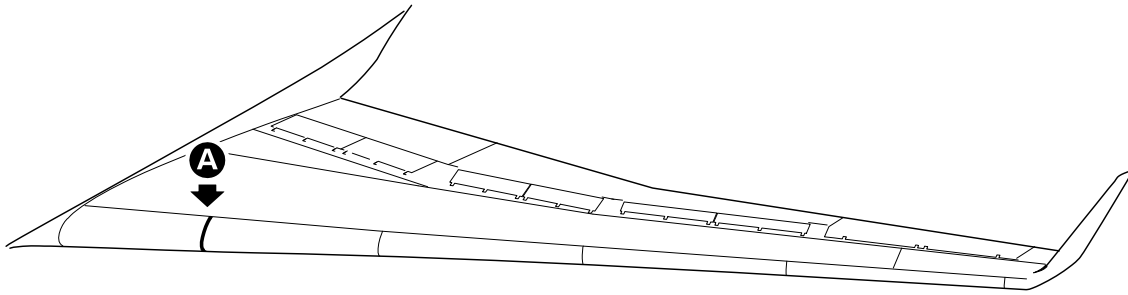


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GSB2750\_001

Reference of Torque Tube Initial Position  
Figure 1

**BOMBARDIER**  
**GLOBAL EXPRESS**  
**BOMBARDIER**  
**GLOBAL EXPRESS<sup>XRS</sup>**  
MODEL BD-700-1A10 (BD-700)



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GSB2750\_004

Steps Measurement  
Figure 2

## SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

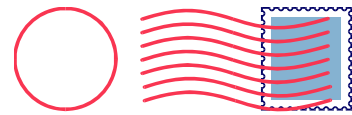
**SERVICE BULLETIN:** 700-27-061      **ISSUE:** Basic      **DATED:** Dec 01/2008

**TITLE:** Modification – Control and Indication Systems – Replacement of SFCU with Part No. GT415-5900-17

	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE
<ul style="list-style-type: none"> <li>• <b>Instructions to do the Service Bulletin were accurate.</b> Comments:</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• <b>Illustration(s), figure(s), and/or kit drawing(s) were helpful to carry out instructions.</b> Comments:</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• <b>If a kit was required, did the kit contents received agree with the contents listed in the bulletin?</b> Comments:</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• <b>The loose parts listed under Paragraph 3 were easily procured.</b> Comments:</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• <b>Work was accomplished in the prescribed time.</b> Comments:</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<ul style="list-style-type: none"> <li>• <b>Overall, I was satisfied with this Service Bulletin.</b> Comments:</li> </ul>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<i>For administrative use only</i>	PLEASE SUPPLY US WITH THE FOLLOWING DATA AND FAX TO: (514) 855-7634 or E-MAIL TO: <a href="mailto:MTL_BBAD_SB_Evaluation@aero.bombardier.com">MTL_BBAD_SB_Evaluation@aero.bombardier.com</a>	
	522AT	OPERATOR: _____ AIRCRAFT SERIAL NO.: _____ TELEPHONE: _____ FACSIMILE: _____ NAME: (Please print) _____

**THANK YOU FOR YOUR RESPONSE!**  
**PLEASE RETURN THIS COMPLETED EVALUATION FORM BY MAIL OR FAX**



**Bombardier Business Aircraft Customer Services (BBACS)**

P.O. Box 6087, Station Centre-ville  
Montréal, Québec, Canada H3C 3G9

Attention: Customer Support Department

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## SERVICE BULLETIN INCORPORATION SHEET – “700-27-061”

Upon completion of the Service Bulletin, please fill in this form and either fold and mail in the envelope provided, or fax to:(514) 855-8798, or e-mail to Fracas at [fracas.montreal@aero.bombardier.com](mailto:fracas.montreal@aero.bombardier.com)

**NOTE:** For configuration control purposes, please fill out one form for each Service Bulletin.

Service Bulletin Number	Rev.	* Parts Completed	COMPLIED WITH		Remarks
			YES	NO	
700-27-061	Basic	-	<input type="checkbox"/>	<input type="checkbox"/>	
-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	
-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	
-	-	-	<input type="checkbox"/>	<input type="checkbox"/>	

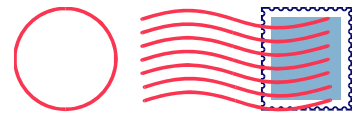
**Actual hours to accomplish Service Bulletin:** \_\_\_\_\_

\* **NOTES:**

- Where the Service Bulletin is divided into a number of parts (e.g., PARTS A, B, C, D, etc.) which can be carried out separately, indicate only those parts completed at this time.
- For repetitive checks (usually PART A) only the initial check should be reported unless otherwise stated in the Service Bulletin.
- When more than one part is carried out at the same time, each part should be reported.

<b>Is the aircraft enrolled on the CAMP computerized maintenance program?</b>	<b>Yes</b>	<b>No</b>
	<input type="checkbox"/>	<input type="checkbox"/>

Aircraft Serial No.	_____	Aircraft Reg. No.	_____
Airframe Landings	_____	Airframe Hours	_____
Date of Incorporation	_____	Service Order No.	_____
Facility & Location Incorporation Bulletin	_____		
PRINT NAME	_____	DATE:	_____
SIGNATURE:	_____		



**Bombardier Business Aircraft Customer Services (BBACS)**

P.O. Box 6087, Station Centre-ville  
Montréal, Québec, Canada H3C 3G9

Attention: Customer Support Department, Maintenance Engineering

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