SERVICE BULLETIN SUMMARY

This Service Bulletin is available at: my.businessaircraft.bombardier.com

MODEL CL-600-1A11

ATA 27-50

FLIGHT CONTROLS

SPECIAL CHECK – WING FLAP SYSTEM – INTRODUCTION OF INITIAL AND REPEAT OPERATIONAL TEST OF THE FLAPS TO VERIFY THE RETRACTION / EXTENSION TIME

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

RECOMMENDED	CON	/IPLIA	NCE TIM	ИE		
SPECIFIED TIME COMPLIANCE	Within 100 FH from this Service Bulletin release date (Basic Issue). Refer to Paragraph 1.D. for more details.					
EFFECTIVITY: A/C Serial No. 1004 to 1085	FFECTIVITY: A/C Serial No. 1004 to 1085					
MANPOWER: 0.5 man-hour						
CONTINUED AIRWORTHINESS (CAW) FLEET CAMPAIGN	YES		NO			
TLMC, CH 5 AFFECTED	YES		NO			
KITS and/or PARTS	YES		NO	\boxtimes		
TOOLING/GSE	YES	\boxtimes	NO			
PLANNING INFORMATION	YES		NO	\boxtimes		
DEDICATED SCHEDULE	YES		NO			
PREREQUISITE SERVICE BULLETINS: N/A						
NOTE: This Service Bulletin may be subject to an Airworthiness Directive which will make it necessary to implement this Service Bulletin.						

Basic Issue: Dec 29/2022 600-0780

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SPECIAL CHECK – WING FLAP SYSTEM – INTRODUCTION OF INITIAL AND REPEAT OPERATIONAL TEST OF THE FLAPS TO VERIFY THE RETRACTION / EXTENSION TIME

1. PLANNING INFORMATION

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

A. Effectivity

CL-600-1A11 aircraft, Serial No. 1004 to 1085.

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 Aviation Service Bulletin(s).

B. Reason

1. Condition:

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A Challenger 604 experienced an unarrested uncommanded flaps extension, from 0 to 45 degrees, accompanied by a FLAPS FAIL Caution message, a scenario which requires multiple independent failures. Investigation has determined that one of the failures was in the Retract Relay on motor channel 1 and this prevented the system from arresting the uncommanded flaps extension. Failure of the Retract Relay also resulted in the flaps moving at half speed. A failure of the Retract Relay on motor channel 2, or a failure of either of the extend relays (motor channel 1 or motor channel 2), will have a similar effect.

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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CHALLENGER 600

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2. Objective/Benefit:

This Service Bulletin instructs to do an initial and repeat operational test of the inboard and outboard flaps to validate if the extension / retraction time are within limits, at the intervals as specified in Paragraph 1.D.

C. Description

This Service Bulletin gives instructions to:

 Do the operational test of the inboard and outboard flaps to verify the extension / retraction time.

D. Compliance

Specified Time Compliance

SB ACTION	INITIAL ACTION	INSTRUCTION
Operational test of the inboard and outboard flaps.	Within 100 FH from this Service Bulletin release date (Basic Issue).	Repeat every 100 FH from the initial action.

NOTES: 1. This Service Bulletin is in reference to Advisory Wire AW600–27–2631.

 If it is not possible to complete all the instructions in this Service Bulletin because of the aircraft configuration, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin. Standard SRPSA fees may apply. Refer to the Services section of the Bombardier customer portal for the latest prices, rates and fees.

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 EASA under the Canada/EU bilateral Aviation Safety Agreement.

F. Manpower

NOTE: The man-hours given are to help you schedule the tasks given in this Service Bulletin. The man-hours 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.

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For more information related to the manpower, refer to SB 600–0002.

0.5 man-hour is necessary to do this Special Check.

Bombardier Aviation does not pay for the labor to do this Special Check.

G. Material – Cost and Availability

No kit or parts are necessary to do this Special Check.

H. Tooling

The equipment listed below is necessary to do this Service Bulletin:

GSE REFERENCE NO.	PART NO.	DESCRIPTION
Commercially Available	_	Stopwatch

- NOTES: 1. Refer to the Illustrated Tool and Equipment Manual (ITEM), PSP611 to make sure that you use the correct equipment configuration.
 - 2. Refer to the Introduction for the CL-600 of the publication listed in NOTE 1 for acceptable GSE equivalents.
 - 3. This list is provided for quick reference. In case of discrepancy between this list and the tools called in the SPM, WM, Chapter 20, then the tools called in the SPM-WM prevail. Other approved alternative tools are acceptable and can also be used.

I. Weight and Balance

No change.

J. **Electrical Load Data**

No change.

K. References

- TCCA Airworthiness Directive, (pending).
- Advisory Wire AW600–27–2631.
- Bombardier Aviation, Restriction and/or Special Instruction (RSI), C-4297, Rev. A.
- CL–600 Maintenance Manual, PSP 602, Chapters 6, 12, 20, 24 and 27.

L. Other Publications Affected

None.

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M. Equivalent Service Bulletins

- For the Challenger 601 aircraft, use Service Bulletin 601–1112.
- For the Challenger 604 aircraft, use Service Bulletin 604–27–040.
- For the Challenger 605 aircraft, use Service Bulletin 605–27–011.
- For the Challenger 650 aircraft, use Service Bulletin 650–27–004.

2. ACCOMPLISHMENT INSTRUCTIONS

NOTES: 1. All TASKs given in the procedures that follow are from the Maintenance Manual, PSP 602, unless otherwise specified.

2. All references made to zones, access panels and/or doors, are from the Maintenance Manual, PSP 602, Chapter 6.

A. Aircraft Setup

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WARNING: OBEY ALL SAFETY PRECAUTIONS WHEN YOU DO MAINTENANCE ON OR NEAR ELECTRICAL EQUIPMENT. IF YOU DO NOT DO THIS, YOU CAN CAUSE INJURIES TO PERSONS AND/OR DAMAGE TO THE EQUIPMENT.

- (1) Obey all electrical/electronic safety precautions. Refer to AMM 24–00–00.
- (2) Make sure that all ground equipment is clear of the flaps to allow full unobstructed travel.
- (3) Install the safety devices and the warning placards in the area near the flap-control surfaces.
- (4) Apply external AC power. Refer to AMM 12–00–00.

B. Special Check — Operational Test of the Inboard and Outboard Flaps

- NOTES: 1. If it is not possible to complete all the instructions in this Service Bulletin because of the configuration of the aircraft, submit an SRPSA for analysis and to get an approved disposition to complete this Service Bulletin.
 - 2. Repeat the operational test of the inboard and outboard flaps every 100 FH.
- (1) Do the operational test of the inboard and outboard flaps to verify the extension / retraction time as follows:

NOTE: If you get the condition that follows, make sure that the flap motors are cooled (6 minutes cooling) before you operate them again: the FLAPS FAIL indication. No anomalous flap messages should be indicated before commencing this verification.

(a) Set the flap control lever to the 0-degree position.

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- (b) Make sure there are no FLAPS FAIL or OVHT MOT1 or OVHT MOT 2 lights on.
- (c) Set the flap control lever to the 45–degree position and check that the flap extension time is between 17 and 19 seconds.

<u>CAUTION</u> WAIT 6 MINUTES BEFORE PROCEEDING TO STEP (d), TO COOL THE FLAP MOTORS.

- (d) Set the flap control lever to the 0-degree position and check that the flap retraction time is between 17 and 19 seconds.
- (2) If any anomalies are found, submit an SRPSA to report back to Bombardier.

C. Close-out

- (1) Remove the external AC power. Refer to AMM 12–00–00.
- (2) Remove all tools, equipment and other unwanted material from the aircraft.
- (3) Remove the warning placards from the area near the flap-control surfaces.

D. 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).

For information, correction(s), comment(s) and/or feedback regarding Service Bulletins released on the Customer Portal, please contact the Service Bulletin Group at the following email address:

bbad_SBgroup@aero.bombardier.com

3. MATERIAL INFORMATION

A. Kit

No kits required.

B. Parts

No parts required.

C. Material

No materials required.

D. Publications

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No publications required.

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SERVICE BULLETIN EVALUATION FORM

(Your ideas will help us provide better bulletins)

SERVICE BULLETIN: 600–0780 ISSUE: Basic DATED: Dec 29/2022

TITLE: SPECIAL CHECK – WING FLAP SYSTEM – INTRODUCTION OF INITIAL

AND REPEAT OPERATIONAL TEST OF THE FLAPS TO VERIFY THE

RETRACTION / EXTENSION TIME

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bbad SBgroup@aero.bombardier.com

NOTE: Please use Salesforce **only** for troubleshooting issues or when Engineering deviation is necessary to accomplish the Service Bulletin modification.

SERVICE BULLETIN INCORPORATION SHEET - "600-0780"

BOMBARDIER SUBMISSION

Upon completion of the Service Bulletin, please fill–in, fax to (514) 855–8798 or e–mail to Fracas at fracas.montreal@aero.bombardier.com

If you're reporting Service Bulletin (SB) Incorporations to CAMP, sending this Incorporation Sheet to Bombardier is not mandatory. If your aircraft is on another tracking system, please contact Bombardier to make arrangements for automated data submission.

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Service Bulletin Number	Rev.	* Parts Completed	YES	NO	N/A	Remarks/Reason (Mandatory if N/A)	n
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