

Advisory Wire

REFERENCE NO: AW600-05-2649 Rev. 01

ATA: 05-00

**SUBJECT: Horizontal Stabilizer Trim Actuator (HSTA)
TCCA AD CF-2024-16 Note 2 Phase-in**

EFFECTIVITY:

Challenger 604
Challenger 605
Challenger 650

1. REFERENCES:

- 1.1. [TCCA AD CF-2024-16](#) Time Limits/Maintenance Checks (TLMC) – Airworthiness Limitations (AWL), issued on 2024-05-23 and effective on 2024-06-06
- 1.2. Bombardier Service Bulletins (SB) 604-27-032 and 605-27-002 - Modification – Horizontal Stabilizer Trim-Actuating System – Replace the Horizontal Stabilizer Trim Actuator (HSTA) Part Number 604-92305-3/-5 (8454-1/-2) with Part Number 604-92305-7 (8454-3) released April 2014
- 1.3. [TCCA AD CF-2013-18](#) Horizontal Stab Trim Actuator (HSTA) – Loose Bolts on the Spur Gear, issued on 2013-07-16
- 1.4. [FAA AD 2015-05-07](#) issued on 2015-03-15 (superseding FAA AD 2015-02-06).
- 1.5. AW 600-27-2363 Horizontal Stabilizer Trim Actuator (HSTA) Upgrade Program, basic issue 2011-02-24
- 1.6. [TCCA AD CF-2014-30](#) Flight Controls - Horizontal Stabilizer Trim Actuator (HSTA) – Incorporation of New Airworthiness Limitations, issued on 2014-09-05
- 1.7. [FAA AD 2016-13-09](#) Issued on 2016-07-12
- 1.8. Time Limits and Maintenance Checks (TLMC) Rev 33 for Challenger 604
- 1.9. Time Limits and Maintenance Checks (TLMC) Rev 22 for Challenger 605
- 1.10. Time Limits and Maintenance Checks (TLMC) Rev 9 for Challenger 650
- 1.11. Alternative Method of Compliance (AMOC) to Airworthiness Directive (AD) 2016-13-09 for all Bombardier Inc. CL-600-2B16 (CL-604 Variant) aircraft models. (Log Number 24-15-WTS Letter Number 753-24-0027)

2. INTRODUCTION:

This advisory wire is to provide clarity and substantiation to the maintenance requirement of the HSTA 604-92305-7 (later -7) and Subs following the release of Transport Canada Civil Aviation (TCCA) Airworthiness Directive (AD) (ref 1.1).

The advisory wire revision includes the Global AMOC (Ref 1.11) to allow FAA operators to update their maintenance programs for CMRs affecting the HSTA.

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The HSTA modification to -7 was introduced via SB (Ref 1.2) and made mandatory with the publication of ADs (Ref 1.3 and 1.4) the campaign occurred from 2012 to 2017. Campaign update were provided via AW revision (Ref 1.5).

Subsequently, TLMC was amended to introduce 2 (*) CMRs

- 27-42-01-109* - Restoration (Overhaul) of the HSTA p/n 604-92305-7 and Subs
- 27-42-01-111* - Detail inspection of the HSTA Secondary load path indicator p/n 604-92305-7 and Subs

Those tasks were mandated via the issuance of AD (Ref 1.6 & 1.7).

TLMC was modified again via TR 5-2-65 issued on Jan 27, 2015 for Challenger 604 and TR 5-2-24 issued on Jan 27, 2015 for Challenger 605, for which no AD was issued, publishing CMR (**) task

- 27-42-01-110** - Special Detailed Inspection of the Horizontal Stabilizer Trim Actuator (HSTA), p/n: 604-92305-7 and Subs with an interval 120 months component.

Note: The Challenger 650, CMR task 27-42-01-110** is present since the original publication of the Part 2 AWL of the Time Limits and Maintenance Checks (TLMC).

Note: As per the note in the TLMC task, when CMR task 27-42-01-109* (Restoration) is performed, credit can be taken for task CMR task 27-42-01-110** and its time reset to zero.

3. DESCRIPTION:

Due to the CMR task 27-42-01-110** introduction there is an expected increase rate of HSTA removals and shipments to the supplier between 2022 and 2027, with an anticipated peak in late 2024 and early 2025.

While Bombardier worked with our supplier to build-up a rotatable pool, currently there is a limited quantity of HSTAs to support the restoration or to complete the special detailed inspection tasks.

TCCA AD CF-2024-16 (Ref 1.1) requires completion of the new or more restrictive Airworthiness Limitations within their thresholds and repeat intervals or discard time as published in the Part 2 AWL of the TLMC publications identified in Table 1 of the AD, and in the temporary revisions (TRs) identified in Table 2 of the AD.

Bombardier has been working with the HSTA supplier to investigate potential alleviations. Previous teardown findings have shown that CMR task 27-42-01-110** may be phased-in without affecting safety, therefore, Bombardier worked with TCCA to introduce Note 2 in the TCCA AD which contains a specific phase-in statement for CMR task 27-42-01-110**, which could give certain operators up to 12 years for the first completion of the task in lieu of the currently published 120 months (10 years).

The FAA has not yet adopted the TCCA AD, and the issuance of the FAA AD is not anticipated for a few more months since the required Notice of Proposed Rulemaking (NPRM) process will take time to complete. Since the corresponding FAA AD has not yet been published, US-registered owners/operators cannot easily use the Note 2 in the TCCA AD.

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4. ACTION:

As per FAA guidance we have applied for and received approval of a global AMOC (Ref 1.11) against Airworthiness Directive 2016-13-09 (Ref 1.7) for all the Challenger 604/605/650 aircraft models, to allow US-registered operators to comply with paragraph (g) of the FAA AD 2016-13-09 by revising the maintenance program, to incorporate the following CMR tasks at the intervals published in the applicable TLMC/AWL revisions identified in Table 1 of TCCA AD CF-2024-16:

1. CMR Task 27-42-01-109* [Restoration (Overhaul) of the Horizontal Stabilizer Trim Actuator, Part No. 604-92305-7 and Subs (Vendor Part No. 8454-3 and Subs)]; and
2. CMR Task 27-42-01-111* [Detailed Inspection of the Horizontal Trim Actuator (HSTA) Secondary Load Path Indicator, Part No. 604-92305-7 and Subs (Vendor Part No. 8454-3 and Subs)]; and
3. CMR Task 27-42-01-110** [Special Detailed Inspection of the Horizontal Stabilizer Trim Actuator (HSTA), p/n: 604-92305-7 and Subs]. NOTE: The interval can take credit for the phase-in in Note 2 of TCCA AD CF-2024-16.

Please note that below conditions apply from the AMOC:

- No HSTA-related service difficulties shall have been encountered during the preceding 30 calendar days. Contact Bombardier if HSTA-related service difficulties are encountered
- Before using this global AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office

For further questions on compliance to TCCA AD CF-2024-16, you may contact the FAA NYACO or TCCA using the contact information at the bottom of the AD.



U.S. Department
of Transportation
**Federal Aviation
Administration**

Aviation Safety

1600 Stewart Avenue
4th Floor, Suite 410
Westbury, NY 11590

In Reply
Refer To: 753-24-00207

July 15, 2024

Soumia Miloud
Section Chief, Airworthiness
Bombardier
400 Côte-Vertu Road West
Dorval, Québec H4S 1Y9, Canada

Subject: Alternative Method of Compliance (AMOC) to Airworthiness Directive (AD) 2016-13-09 for all Bombardier Inc. CL-600-2B16 (CL-604 Variant) aircraft models. (Log Number 24-15-WTS Letter Number 753-24-00207)

References:

1. Bombardier Inc. letter dated July 02, 2024, with subject “AMOC to FAA AD 2016-13-09.
2. FAA AD 2016-13-09
3. TCCA (Transport Canada Civil Aviation) AD CF-2024-16

Dear Ms. Miloudi,

The Federal Aviation Administration (FAA) has received your proposal dated July 02, 2024, proposing this global AMOC (Ref.1), applicable only to Bombardier Inc. CL-600-2B16 (CL-604 Variant) aircraft models, is therefore requested to allow US-registered operators to comply with paragraph (g) of the subject AD 2016-13-09 by revising the maintenance or inspection program, as applicable, to incorporate all of the following Certification Maintenance Requirement (CMR) tasks at the intervals published in the applicable Time Limits/Maintenance Checks (TLMC) – Airworthiness Limitations (AWL) revisions identified in Table 1 of TCCA AD CF-2024-16:

1. CMR Task 27-42-01-109* [Restoration (Overhaul) of the Horizontal Stabilizer Trim Actuator, Part No. 604-92305-7 and Subs (Vendor Part No. 8454-3 and Subs)]; and
2. CMR Task 27-42-01-111* [Detailed Inspection of the Horizontal Trim Actuator (HSTA) Secondary Load Path Indicator, Part No. 604-92305-7 and Subs (Vendor Part No. 8454-3 and Subs)]; and
3. CMR Task 27-42-01-110** [Special Detailed Inspection of the Horizontal Stabilizer Trim Actuator (HSTA), p/n: 604-92305-7 and Subs].

Paragraph (g) of AD 2016-13-09 requires within 30 days after the effective date of this AD: Revise the maintenance or inspection program, as applicable, to incorporate Task 27-42-01-109, Restoration (Overhaul) of the Horizontal Stabilizer Trim Actuator, Part No. 604-92305-7, and Subs (Vendor Part No. 8454-3 and Subs); and Task 27-42-01-111, Detailed Inspection of the Horizontal Trim Actuator (HSTA) Secondary Load Path Indicator, Part No. 604-92305-7 and Subs (Vendor Part No. 8454-3 and Subs); of the applicable document identified in paragraph (g)(1) or (g)(2) of this AD.

Bombardier has been working with the HSTA supplier to investigate potential alleviations. Previous teardown findings have shown that CMR task 27-42-01-110** may be phased-in without affecting safety, therefore, Bombardier worked with TCCA to introduce Note 2 in the TCCA AD CF-2024-16 which contains a specific phase-in statement for CMR task 27-42-01-110**, which could give certain operators up to 12 years for the first completion of the task in lieu of the currently published 120 months (10 years).

We have reviewed your request and agree that accomplishing CMR Task 27-42-01-110 [Special Detailed Inspection of the Horizontal Stabilizer Trim Actuator (HSTA), p/n: 604-92305-7 and Subs] identified in Table 1 of TCCA AD CF-2024-16 is an acceptable Global AMOC for the requirements of paragraph (g) of FAA Airworthiness Directive 2016-13-09 applicable only to Bombardier Inc. CL-600-2B16 (CL-604 Variant) aircraft models, this AMOC provides an acceptable level of safety.

In accordance with FAA Order 8110.103B, dated September 14, 2016, the following conditions apply:

- This approval is only applicable to Bombardier Inc. CL-600-2B16 (CL-604 Variant) aircraft models.
- No HSTA-related service difficulties shall have been encountered during the preceding 30 calendar days. Contact Bombardier if HSTA-related service difficulties are encountered.
- This global AMOC is transferable. A transferable global AMOC is a global AMOC that will continue to apply to a product after it has been transferred to a new owner/operator.
- Before using this global AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.
- All provisions of AD 2016-13-09 that are not specifically referenced above remain fully applicable and must be complied with accordingly.
- This AMOC only applies to the FAA AD listed above. The FAA does not have the authority to approve this as an AMOC to any AD issued by another civil aviation authority (CAA). Approval of an AMOC to another CAA's AD must come from that CAA. A copy of this response will be forwarded to the CAA where these aircraft are registered for their consideration.

If you have any questions pertaining to this matter, you may contact Brenda L Buitrago Perez, Aerospace Engineer, AIR-753, via email at brenda.l.buitrago.perez@faa.gov, or the International Validation Branch at 9-AVS-NYACO-COS@faa.gov.

Sincerely,


Program Manager, Continued Operational Safety

Digitally signed by
JAMES E DELISIO
Date: 2024.07.15
13:36:11 -04'00'

For: Anthony E. Gallo
Manager, International Validation Branch
Compliance and Airworthiness Division

cc: James Delisio, FAA (PDF Copy)