

# Advisory Wire

REFERENCE NO: AW600-05-2649

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

## 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 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).

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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:

Bombardier has discussed these concerns with the FAA NYACO and FAA AED, and per their guidance we have applied for a global Alternate Means of Compliance (AMOC) against Airworthiness Directive (AD) 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.

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.