**Bombardier (Canadair) CL-600 (Challenger) Series Aeroplanes**

<table>
<thead>
<tr>
<th>AD/CL-600/29</th>
<th>Horizontal Stabiliser Trim Actuator</th>
<th>6/95 DM</th>
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**Applicability:** All Canadair CL-600 aircraft as follows:

<table>
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<tr>
<th>Model</th>
<th>Serial Numbers</th>
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<tr>
<td>CL-600-1A11</td>
<td>1004 to 1085</td>
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<tr>
<td>CL-600-2A12</td>
<td>3001 to 3066</td>
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<td>CL-600-2B16</td>
<td>5001 to 5299 excluding 5138</td>
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**Requirement:**

1. Perform the following operational check of the Horizontal Stabilizer Trim Actuator (HSTA) brake:

   a. Press the CHAN 1 INOP/CHAN 2 INOP switch/light and then the OVSP/CHNG CHAN switch/light on the centre pedestal control panel.

   b. Set and hold the pitch trim switch on the pilot’s control wheel until the stabilizer is in full NOSE UP position.

   c. Set and hold the pitch trim switch on the pilot’s control wheel to NOSE DOWN position and while the stabilizer is moving, press the PITCH TRIM DISC switch on the pilot’s control wheel when the needle on the stabilizer trim position indicator reaches the first marking of the take-off configuration green band. Verify that both CHAN INOP lights are on.

   d. Verify that the stabilizer over-travel is less than one degree, as read on the stabilizer trim position on the centre instrument panel.

   *Note: One increment on the stabilizer trim position indicator is equal to one degree of stabilizer travel.*

   If the stabilizer over-travel is less than or equal to one degree, the pitch trim brake performance meets the ground performance requirements and is serviceable.

   If the stabilizer over-travel is more than one degree, refer to Requirement 2.

2. Action in accordance with the Accomplishment Instructions Part A of Bombardier Inc, Canadair Business Aircraft Division Alert Service Bulletin A600-0645 or A601-0443, both dated 11 January 1995, as applicable.

3. Action in accordance with the Accomplishment Instructions Part B of Bombardier Inc, Canadair Business Aircraft Division Alert Service Bulletin A600-0645 or A601-0443, both dated 11 January 1995, as applicable.

   *Note: Transport Canada Aviation AD CF-95-02 dated 28 February 1995 refers.*
Compliance:

1. a. Initially, if there has not been a report of a previous HSTA overspeed annunciation, within 20 hours time in service from 31 March 1995 and thereafter every 100 hours time in service, or

1. b. If there has been a report of a previous HSTA overspeed annunciation then, before each flight after 31 March 1995.

2. Before further flight, if the aircraft fails the Requirement 1 checks.

3. a. If there have been previous reports of HSTA overspeed annunciation, then within 50 flight cycles after 31 March 1995, or

3. b. Within 50 flight cycles following a reported incident of HSTA overspeed annunciation after 31 March 1995.

Note: If either the HSTA or the Horizontal Stabilizer Trim Control Unit (HSTCU) was replaced in accordance with Requirements 2 or 3 then the Requirement 1 operational check is only required every 100 hours time in service unless another overspeed annunciation occurs.

Background:

There have been several reported instances of HSTA overspeed conditions. Investigation by Canadair has indicated that, in these cases, the no-back device on the HSTA (a design feature to prevent uncommanded movement of the HSTA screw jack when air loads are applied on the horizontal stabilizer) may have slipped (become reversible), resulting in overspeed annunciation. Each time this condition occurred, the HSTA mechanical brake prevented a HSTA runaway. Further in-depth investigation has identified some internal degraded conditions that may exist in the no-back device which could adversely affect the irreversibility, especially at low temperature and under high air loads. The actions required by this Directive are designed to assist in the early detection of defective HSTA or HSTCU components. Flight Manual Amendments A/600-1A11/17, A/600-2A12/36, A/600-2B16/22 and A/600-2B16H/24 are complementary to this Directive, providing additional advice to aircrew.