AIRWORTHINESS DIRECTIVE

On the effective date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below revokes Airworthiness Directive (AD) AD/TAYLORCRAFT/1 and issues the following AD under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Taylorcraft Series Aeroplanes

AD/TAYLORCRAFT/1 Wing Struts 4/2008 Amdt 1

Applicability: Models A, BC, BCS, BC-65, BCS-65, BC12-65 (Army L-2H), BCS12-65, BC12-D, BCS12-D, BC12-D1, BCS12-D1, BC12D-85, BCS12D-85, BC12D-4-85, BCS12D-4-85, BF (Army L-2G), BFS, BF-60, BFS-60, BF-65, BF12-65 (Army L-2K), BFS-65, BL, BLS, BL-65 (Army L-2F), BLS-65, BL12-65 (Army L-2J), BLS12-65, 19, F19, F21, F21A, F21B, F22, F22A, F22B, and F22C aircraft; all serial numbers, and,

The affected models do not incorporate sealed front lift struts part number MA-A815, Univair part number UA-A815, or FAA-approved equivalent part number, and sealed aft lift struts, part number MA-A854, Univair part number UA-854, or FAA-approved equivalent part number, for all struts.

Note 1: This Directive applies to all Taylorcraft models listed above, including those not listed in Taylorcraft Aviation, LLC Service Bulletin No.2007-001 Revision B, dated 15 October 2007. If there are any other differences between the requirements of this Directive and the above service bulletin, this Directive takes precedence.

Note 2: For the purposes of this Directive, a used strut that has been inspected using the ultrasound or radiograph inspection method, meets the Acceptance/Rejection Criteria specified in Taylorcraft Aviation, LLC Service Bulletin No.2007-001 Revision B, dated 15 October 2007, and is treated with internal corrosion protection, is considered a new strut.

Requirement:

1. Visually inspect the left and right wing front and aft lift struts, part number A-A815 and A-A854, or FAA-approved equivalent part numbers, along the entire bottom 12-inches of each strut for cracks and corrosion in accordance with Part 1 of the Instructions in Taylorcraft Aviation, LLC Service Bulletin (SB) No. 2007-001 Revision A, or SB No. 2007-001 Revision B, or later FAA approved revision.

2. If any cracks are found during the Requirement 1 visual inspection, replace the cracked strut in accordance with SB No. 2007-001 Revision B, with the following applicable strut:

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a. A sealed front lift strut, part number MA-A815, Univair part number UA-A815, or FAA-approved equivalent part number, a sealed aft lift strut, part number MA-A854, Univair part number UA-854, or FAA-approved equivalent part number. Installing these lift struts terminates the repetitive inspections required by this Directive for that strut and no further action is required.

b. A new vented front lift strut, part number A-A815, a new vented aft lift strut, part number A-A854, or FAA-approved equivalent part numbers, that is treated with internal corrosion protection specified in SB No. 2007-001 Revision B, or later FAA approved revision. Installing one of these lift struts is subject to the repetitive inspections required in Requirement 4.

3. If corrosion is found during the Requirement 1 visual inspection, accomplish an ultrasound or radiograph inspection to determine if the corrosion exceeds the Acceptance/Rejection Criteria specified in SB No. 2007-001 Revision B.

4. If no corrosion or cracks are found during the Requirement 1 visual inspection, or if the Requirement 3 inspection reveals that the corrosion does not exceed the Acceptance/Rejection Criteria specified in SB No. 2007-001 Revision B, repetitively inspect thereafter in accordance with Part 2 of SB No. 2002-001 Revision B, using the ultrasound or radiograph inspection method and treat with internal corrosion protection until all struts are replaced with the sealed struts specified in Requirement 2.a. If any cracks are found or corrosion is found that exceeds the Acceptance/Rejection Criteria specified in SB No. 2007-001 Revision B, during any of the repetitive inspections required by this Directive, take the necessary corrective actions as applicable in Requirement 5.

5. If, during any Requirement 3 or Requirement 4 inspection any cracks are found or it is determined that the corrosion exceeds the Acceptance/Rejection Criteria specified in SB No. 2007-001 Revision B, replace the lift strut with the applicable lift strut specified in Requirement 2.a. or 2.b.

6. Do not install lift strut part numbers A-A815 or A-A854, or FAA-approved equivalent part number, unless:

a. Within the last 48 months it has been inspected using the ultrasound or radiograph method;

b. It meets the Acceptance/Rejection Criteria; and,

c. It is treated with internal corrosion protection as specified in SB No. 2007-001 Revision B.

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AD/TAYLORCRAFT/1 Amdt 1 (continued)

As a terminating action for the repetitive inspections required by this Directive, all vented lift struts, part numbers A-A815, A-A854, and FAA-approved equivalent part numbers, may be replaced with sealed lift struts part numbers MA-A815, UA-A815, MA-A854, UA-854, or FAA-approved equivalent part numbers.

Note: FAA AD 2008-04-09 Amdt 39-15381 refers.

Compliance:

1. Within 5 hours time in service after 20 August 2007, unless one of the following conditions is met:

   a. The struts have been replaced with parts specified in Requirement 2.a. No further action is required on those struts.

   b. The struts have been replaced with parts specified in Requirement 2.b. and have been installed for less than 48 months. No visual inspection is required. These parts are now subject to the repetitive inspection requirement specified in Requirement 4.

2. Before further flight after the Requirement 1 visual inspection.

3. Before further flight after the Requirement 1 visual inspection.

4.a. Initial inspection required within 3 months after 20 August 2007 or within 48 months after installing a lift strut specified in Requirement 2.b., whichever occurs later.

4.b. Repetitively inspect thereafter at intervals not to exceed 48 months, except as required by Compliance 4.c. below.

4.c. If the initial inspection was accomplished using the eddy current method as specified in the original issue of this Directive, the first ultrasound or radiograph repetitive inspection must be accomplished within 24 months after accomplishing the eddy current inspection. Repetitively inspect thereafter at intervals not to exceed 48 months using the ultrasound or radiograph inspection method.

5. Before further flight after the Requirement 3 or Requirement 4 inspection.

6. As of 30 April 2008.

The compliance time for Requirement 1 remains unchanged by this issue of the Directive.

This Amendment becomes effective on 10 April 2008.

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AD/TAYLORCRAFT/1 Amdt 1 (continued)

Background: The FAA received several reports of corroded wing lift struts from different Taylorcraft series aircraft. Independent laboratory analysis of the struts revealed varying degrees of excessive internal and external corrosion, including through-the-thickness corrosion. The struts exhibited corrosion severe enough to require strut replacement. This condition, unless corrected, could result in failure of a wing strut and lead to separation of the wing from the aircraft with subsequent loss of control.

Amendment 1 is issued in response to a new FAA AD, which requires a radiograph inspection method instead of the eddy current method, and changes the compliance time between the repetitive inspections.

David Villiers
Delegate of the Civil Aviation Safety Authority

29 February 2008