AIRWORTHINESS DIRECTIVE

On the commencement date specified below, and for the reasons set out in the background section, the CASA delegate whose signature appears below repeals Airworthiness Directive (**AD**) AD/BEECH 36/43 Amdt 3 and issues the following AD under subregulation 39.001 (1) of CASR and subsection 33 (3) of the *Acts Interpretation Act 1901*. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct an 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.

Textron Aviation (Beechcraft) 36 (Bonanza) Series Aeroplanes

AD/BEECH 36/43 Amdt 4 — Wing Bolt, Nut and Fitting — 12/2022

Applicability: All models of Textron Aviation (formerly Beechcraft) 36 series aeroplanes.

Requirement:

1. Remove inspection covers from wing attach fitting recesses and inspect for corrosion or loss of inhibitor. Also inspect drain holes for any blockage that would cause water or debris to accumulate.

Note 1: It may be necessary to use a bright light and mirror/magnifying glass to see hard to view areas of the bolt or fittings for signs of corrosion on accessible areas of the bolt. Non accessible areas like the bolt thread encapsulated by the nut will be inhibited, so it is highly unlikely they will experience corrosion unless the general surrounding area is corroded.

2. Remove and inspect wing bolts, washers, nuts and fittings in accordance with Beechcraft Shop Manual 36-590001-3B Revision B16 Section 3 or Beechcraft Maintenance Manual 36-590001-9C Revision C11 Chapter 57, both as in force on the date of commencement of this AD.

Note 2: The bolt torque should be checked before removal for inspection or replacement to confirm the bolt has been torqued to correct value. If the torque value is incorrect, other maintenance action may be required.

3. Retire wing bolts, washers and nuts from service and replace with new hardware in accordance with Beechcraft Shop Manual 36-590001-3B Revision B16 Section 3 or Beechcraft Maintenance Manual 36-590001-9C Revision C11 Chapter 57, both as in force on the date of commencement of this AD. Render unserviceable all hardware retired.

Compliance:

For Requirement 1:

Every 12 calendar months for all aircraft. If visible corrosion is found within the recess or on visible portion of the bolt or nuts, washers or fittings, then Requirement 2 must be accomplished before further flight.

For Requirement 2:

a. For aircraft operating only in private operations:

   i. unless the inspection has already been accomplished in accordance with either of the requirement documents within 10 years from the initial installation of the wing bolts, inspect within 100 hours' time in service (TIS) or 12 months from the commencement date of this AD, whichever occurs first.

Textron Aviation (Beechcraft) 36 (Bonanza) Series Aeroplanes

AD/BEECH 36/43 Amdt 4 (continued)

Note 3: Installation of the wing bolts includes where they are removed for inspection purposes and re-installed.

ii. re-inspect at intervals not to exceed 10 years from the previous inspection.

b. For all other operational categories,

i. unless the inspection has already been accomplished in accordance with either of the requirement documents within 5 years from the installation of the wing bolts, inspect within 100 hours' time in service (TIS) or 12 months from the commencement date of this AD, whichever occurs first.

Note 4: Installation of the wing bolts includes where they are removed for inspection purposes and re-installed.

ii. re-inspect at intervals not to exceed 5 years from the previous inspection.

For Requirement 3:

Before 15 years TIS after the first installation of new zero time wing bolts.

Mandatory reporting requirements:

Both NIL findings of defects and confirmed defects for Requirement 2 inspection must be reported to CASA.

This AD commences on 19 July 2022.

Background: The initial issue of this Airworthiness Directive became effective on 1 February 1996 and made mandatory the inspection and replacement periods for the wing attachment hardware as detailed in the requirement document.

Amendment 1 of this AD added the Note to Requirement 2 and added the fittings as an item to be inspected when the wing bolts, washers and nuts are removed and inspected.

Amendment 2 of this AD removed the alternative means of compliance that had been issued to allow in-situ inspection of the wing attachment bolts and nuts rather than conduct the manufacturer's required MPI.

Amendment 3 of this AD was issued to extend the compliance time for Requirement 1 by two months whilst the proposed airworthiness directive process was conducted for AD/BEECH 36/43 Amdt 4.

Textron Aviation (Beechcraft) 36 (Bonanza) Series Aeroplanes

AD/BEECH 36/43 Amdt 4 (continued)

Amendment 4 of this AD allows for aircraft used in private operations to be visually inspected for corrosion in the exposed areas of the wing attach bolts and wing fitting recess with the inspection interval increased from 5 to 10 years, in lieu of using the manufacturer's maintenance instructions. For all other types of operations, the inspection requirements remain unchanged, requiring inspection of the wing attach hardware and fitting recess per the manufacturer's maintenance data.

David Punshon
Delegate of the Civil Aviation Safety Authority

15 June 2022

Australian Government
Civil Aviation Safety Authority

NATIONAL OPERATIONS AND STANDARDS DIVISION

CASA Ref: F24/3072

To the Registered Operator

Dear Sir or Madam

General Alternative Means of Compliance (AMOC) to AD/BEECH 36/43 Amdt 4

The purpose of this letter is to provide information to any registered operator intending to use this General AMOC such that they can make an informed decision regarding the incorporation of this AMOC based on the associated risks.

A registered operator intending on using this General AMOC to find compliance against AD/BEECH 36/43 should be aware that:

1. The purpose of this general AMOC is to allow up to 12 months for Textron Aviation, the type certificate holder, to publish proposed changes to the maintenance manuals for the aircraft which will;
    a. Change the non-destructive inspection method to a visual inspection, and
    b. Increase the life of the wing bolt from 15 years to 20 years.
2. CASA intends to amend AD/BEECH 36/43 commensurate with any associated published changes made by Textron Aviation to the aircraft maintenance manuals as and when these changes are made.
3. However, if Textron Aviation decide not to proceed with these changes then, when the General AMOC expires, compliance with the requirements of AD/BEECH 36/43 Amdt 4 as currently expressed will need to be re-established. This means that:
    a. AD/BEECH 36/43 Requirement 2 will need to be satisfied by using the non-destructive inspection method stated in the reference maintenance manual.
    b. Any wing bolt that has exceeded the replacement life of the compliance time stated in AD/BEECH 36/43 Amdt 4 of 15 years will need to be replaced.
4. There are no plans at this time to extend the time expiry date stated in the general AMOC.

Yours sincerely

Steven Campbell
Executive Manager
National Operations and Standards Division
5 March 2024

Australian Government

Civil Aviation Safety Authority

Instrument number CASA 12/24

I, STEVEN JAMES CAMPBELL, Executive Manager, National Operations & Standards, a delegate of CASA, make this instrument under paragraph 39.004(3)(a) of the *Civil Aviation Safety Regulations 1998*.

Steven Campbell

Steven Campbell
Executive Manager, National Operations & Standards

04 March 2024

CASA 12/24 — Alternate Means of Compliance with Airworthiness Directive AD/BEECH 36/43 Amdt 4 Approval 2024

1 Name

This instrument is *CASA 12/24 — Alternate Means of Compliance with Airworthiness Directive AD/BEECH 36/43 Amdt 4 Approval 2024*.

2 Duration

This instrument:

(a) commences on the day after it is registered; and

(b) is repealed on the earlier of the following:

(i) the end of 28 February 2025;

(ii) the day AD/BEECH 36/43 Amdt 4, as in force at the commencement of this instrument (the ***AD***), is repealed or revoked.

3 Alternate means of compliance for private operations aircraft

(1) The following means of compliance with the AD other than that set out in the AD is approved for a relevant aircraft:

(a) for an inspection due on or before 12 March 2024 under Requirement 2 in the AD, completion of the inspection by not later than 12 April 2024;

(b) instead of the magnetic particle inspection required under Requirement 2 of the AD, removal of the wing bolts and performance of a detailed visual inspection of each wing bolt using a 10-power or stronger magnifying glass for corrosion, cracks, and mechanical damage and replacement of any wing bolt that is corroded, cracked or has mechanical damage;

Note 1 A magnetic particle inspection is required under both the Beechcraft Shop Manual and Beechcraft Maintenance Manual, as described in the AD, that are adopted by reference by Requirement 2 of the AD.

Note 2 The cadmium plating of a wing bolt may display areas that appear rubbed, discoloured, or polished. These areas are usually the result of prevailing installation procedures and are of no significance. A wing bolt should not be rejected because of cadmium plating deterioration.

(c) the increase of the compliance time for Requirement 3 in the AD from 15 years to 20 years after the first installation of a new zero-time wing bolt.

Note All other requirements and compliance times stated in the AD remain unchanged.

(2) In this section:

relevant aircraft means an aircraft to which the AD applies that is operated only in private operations.

Note ***private operation*** is defined in Part 1 of the CASR Dictionary.