

Airworthiness Directive Schedule

Aeroplanes

Harvard 2, 2A and 3 Series

26 September 2013

- Notes**
1. This AD schedule is applicable to Harvard 2, 2A and 3 variants which have previously been operated in military service. Many of the ADs in this schedule are based on ADs issued by the FAA, and applicable to the AT-6 series covered by FAA Aircraft Specification No. A-2-575, held by The Boeing Company (previously held by North American Aviation Inc.).
 2. Harvard 2, 2A and 3 aircraft registered in New Zealand have been accepted based on their previous military designations which may not relate exactly to any of the models listed in A-2-575. However they share many of the same components and experience the same unsafe conditions as the AT-6 series. The CAA requires that operators and maintainers of Harvard 2, 2A and 3 series aircraft review the ADs in this schedule and comply with them accordingly.
 3. This AD schedule includes those National Airworthiness Authority (NAA) ADs applicable Harvard aircraft. NAA ADs can be obtained directly from the applicable NAA web site. The links to NAA web sites are available on the CAA web site at http://www.caa.govt.nz/Airworthiness_Directives/states_of_design.html
 4. The AT-6 is the designation for United States Army Air Forces (USAAC) aircraft. Aircraft delivered to the United States Navy (US Navy) were redesignated the SNJ series. Aircraft operated by the Royal Air Force (RAF) and the British Commonwealth Air Forces the AT-6 was redesignated the Harvard 2, the AT-6C to the Harvard 2A, the AT-6A to the Harvard 2B, and the AT-6D to the Harvard 3.
 5. The ADs listed in the ex-military AD schedule prior to April 2010 were solely applicable to Harvard aircraft. Accordingly this schedule has been renamed to apply only to Harvard aircraft.
 6. The date above indicates the amendment date of this schedule.
 7. New or amended ADs are shown with an asterisk *

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From 1 October 2012 the Civil Aviation Authority of New Zealand (CAA) will no longer rewrite the text of State of Design ADs. Applicable State of Design ADs will be listed below and can be obtained directly from the National Airworthiness Authority (NAA) web site. The link to the NAA web site is available on the CAA web site at http://www.caa.govt.nz/Airworthiness_Directives/states_of_design.html If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ they will be added to the list below.			7
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DCA/EXMIL/1B Tail Plane Attachment – Inspection and Replacement

Applicability: All model Harvard 2 (AT-6), Harvard 2A (AT-6C) and Harvard 3 (AT-6D) series aircraft.

Note: DCA/EXMIL/1A revised to clarify the applicability with no change to the AD requirement. This AD mandates repetitive inspections of the tail plane main-spar attachment fittings P/N 77-21021.

Requirement: To prevent a possible in-flight failure of the tail plane attachments, accomplish the following:

1. Inspect in-situ the tail plane main-spar attachment fittings P/N 77-21021 visually for cracks and corrosion. If there are indications of cracks and/or corrosion, accomplish requirement 2 of this AD before further flight.

2. With the tail plane removed from the aircraft, remove paint from main-spar attachment fittings P/N 77-21021 and visually inspect for cracks and corrosion. Protect serviceable parts and renew defective parts before further flight.

Compliance: 1. By 30 April 2001 (one month after the effective date of DCA/EXMIL/1A) unless previously accomplished, and thereafter at intervals not to exceed 12 months.
2. Within the next 2 years after 29 March 2001 (the effective date of DCA/EXMIL/1A) and thereafter at intervals not to exceed 5 years.

(NZ occurrence refers)

Effective Date: DCA/EXMIL/1 – 10 October 1980
DCA/EXMIL/1A – 29 March 2001
DCA/EXMIL/1B – 26 July 2012

DCA/EXMIL/2A Wing Attach Angles - Inspection

Applicability: All model Harvard 2 (AT-6 and SNJ-2), Harvard 2A (AT-6C and SNJ-4), Harvard 2B (AT-6A and SNJ-3), Harvard 3 (AT-6D and SNJ-5), AT-6B, AT-6F (SNJ-6), BC-1A, SNJ-7 and T-6G series aircraft.

Note 1: DCA/EXMIL/2A revised to clarify the applicability with no change to the AD requirement.

Requirement: To detect and prevent the growth of fatigue cracks in the wing attach angles, accomplish a sensitive fluorescent penetrant inspection of the inboard and outboard upper and lower wing attach angles, except the nose angles, per the instructions in the appendix of FAA AD 2005-12-51.

Note 2: Report inspection results including the absence of cracks to the CAA within 7 days of the inspection.

Note 3: If inspection facilities are not available, the aircraft may conduct one flight to a suitable inspection location, subject to the following limitations:

- a) No aerobatic manoeuvres.
- b) Flight into known or forecast moderate or severe turbulence is prohibited.
- c) Day VFR operation only.
- d) Single pilot operation only (no passengers).

(FAA AD 2005-12-51, Transport Canada AD CF-2005-19 and CASA AD/AT-6/1 Amdt 1 refer)

Compliance: Before further flight unless previously accomplished within the last 15 hours TIS, and thereafter at intervals not to exceed 200 hours TIS.

Effective Date: DCA/EXMIL/2 - 15 June 2005
DCA/EXMIL/2A - 26 July 2012

DCA/EXMIL/3B Airworthiness Directive Compliance at Initial Airworthiness Certificate Issue

Applicability: All model Harvard 2 (AT-6 and SNJ-2), Harvard 2A (AT-6C and SNJ-4), Harvard 2B (AT-6A and SNJ-3), BC-1A and AT-6B series aircraft.

Note 1: DCA/EXMIL/3B revised to clarify the applicability with no change to the AD requirement.

Requirement: Compliance with the following FAA Airworthiness Directives is required:

FAA AD No:	Reference Service Information:	Subject:
50-09-01 (This AD supersedes 45-44-03).	North American SB dated 6 March 1946	Horizontal stabilizer rear spar fittings and shims
49-07-02	None	Fuel system placard
46-46-02	None	Elevator stop
46-17-01	North American SB dated 6 March 1947	Flap control universal joint pins

Note 2: Each part of this AD (each individual FAA AD) shall be certified in the aircraft log book separately.

Compliance: Before issue of a New Zealand Certificate of Airworthiness, or at the next ARA inspection after the effective date of this AD whichever is the sooner, unless previously accomplished.

Effective Date: DCA/EXMIL/3 - 29 April 2010
DCA/EXMIL/3A - 27 May 2010
DCA/EXMIL/3B - 26 July 2012

DCA/EXMIL/4A Landing Gear Retracting Strut – Inspection and Rework

Applicability: All model Harvard 2 (AT-6 and SNJ-2), Harvard 2A (AT-6C and SNJ-4), Harvard 2B (AT-6A and SNJ-3), BC-1A and AT-6B series aircraft.

Note 1: DCA/EXMIL/4A revised to clarify the applicability with no change to the AD requirement. The installation of doubler angles per the requirements of this AD terminates the repetitive inspections mandated by this AD.

Requirement: To prevent failure of the landing gear retracting strut, accomplish the following:

Inspect the inboard end of the landing gear retracting strut attachment support channel P/N 55-14102 or 66-14102-1 at the wing outer panel joint for cracks. If cracks are found in any channel reinforce the channel as follows:

If no cracks are found, either accomplish the required periodic inspections mandated by this AD, or install a 0.062 inch-29/32 inch x 1 inch x 6 3/4 inches long, SAE No. 4130 steel, cadmium-plated (or 0.091 inch-24ST alclad) doubler angles in the upper corners of the inboard ends of the channel. Note: The doubler angles need not exceed 4 inches in length if no cracks are found. Attach the 29/32-inch leg by picking up the existing rivet pattern through the wing skin and the channel upper flange. The rivets through the wing attach angle should be replaced with AN 3 bolts, or equivalent. Attach the 1-inch leg to the side of the channel using a row of seven AN 442-AD4 rivets or equivalent, at approximately 1 1/8-inch spacing.

For cracks less than 2 inches long, install a 0.062 inch-29/32 inch x 1 inch x 6 3/4 inches long, SAE No. 4130 steel, cadmium-plated (or 0.091 inch-24ST alclad) doubler angles in the upper corners of the inboard ends of each cracked channel. Drill a 1/8-inch stop hole at the end of each crack. Attach the 29/32-inch leg by picking up the existing rivet pattern through the wing skin and the channel upper flange. The rivets through the wing attach angle should be replaced with AN 3 bolts, or equivalent. Attach the 1-inch leg to the side of the channel using a row of seven AN 442-AD4 rivets or equivalent, at approximately 1 1/8-inch spacing.

For cracks over 2 inches long, install 0.062 inch-29/32 inch x 1 3/8 inches x 6 3/4 inches long SAE No. 4130 steel, cadmium-plated, doubler angles in the upper corners of the inboard ends of each channel containing a crack over 2 inches long. Drill a 1/8-inch stop hole at the end of each crack. Attach 29/32-inch leg as described in paragraph A. Attach 1 3/8-inch leg to the side of the channel using two rows of seven AN 442-AD4 rivets, or equivalent, at approximately 1 3/8-inch spacing.

- Note 2:** In order to permit installation of rivets with the wing outer panel installed on the aircraft, approved type blind 5/32-inch rivets may be used in the 1-inch or the 1 3/8-inch leg of the doubler angle.
- Note 3:** Supplement No. 1 to North American SB dated 6 March 1946 pertains to the subject of this AD. FAA AD was previously Service Note 2 of AD-2-575-3.
(FAA AD 46-11-01 refers)
- Compliance:** At the next maintenance inspection unless previously accomplished and thereafter at every annual inspection unless doubler angles have been installed per the requirements of this AD.
- Effective Date:** DCA/EXMIL/4 - 29 April 2010
DCA/EXMIL/4A - 26 July 2012

DCA/EXMIL/5A Fuselage Structural Corrosion – Inspection and Replacement

- Applicability:** All model Harvard 2 (AT-6 and SNJ-2), Harvard 2A (AT-6C and SNJ-4), Harvard 2B (AT-6A and SNJ-3), Harvard 3 (AT-6D and SNJ-5), AT-6B and AT-6F (SNJ-6) series aircraft.
- Note:** DCA/EXMIL/5A revised to clarify the applicability with no change to the AD requirement. This AD mandates the requirements specified in FAA AD 50-38-01 which supersedes FAA AD 47-41-01.
- Requirement:** Several recent incidents have indicated that the present structural inspections are not sufficiently comprehensive to determine what areas of the aircraft airframe may be adversely affected by intergranular corrosion. As a result the following inspections must be accomplished periodically.
- To minimize the possibility of structural failure of the aircraft structure, inspect all accessible structural aluminum alloy components for evidence of intergranular corrosion paying particular attention to the following areas:
- At the upper and lower deck and the most forward and two aft bulkheads in the monocoque fuselage, and
 - The frame around the baggage door, and
 - The inboard end of horizontal stabilizer spars, and
 - The fuel cell doors in the wing center section, and
 - The wing attach angles, and
 - The two inboard ribs on each outer wing, and

- The trailing edge ribs above flaps, and
- The outboard rib of the wings, especially at the trailing edge.

Full use should be made of all access points to accomplish as thorough an inspection as possible. In conducting these inspections, full reliance cannot be placed on visual examination alone. With the aid of a screwdriver or other similar sharp pointed instrument inspect for material which may be easily penetrated and inspect for dull sounding areas. Areas adjacent to joints and sheared edges should be thoroughly examined. Formed material in particular has been found to be subject to rapid intergranular corrosion due to the poor heat treatment of parts which were formed in the annealed condition and later heat treated.

Replace defective parts before further flight.

(FAA AD 50-38-01 refers)

Compliance: At the next maintenance inspection unless previously accomplished and thereafter at every annual inspection.

Effective Date: DCA/EXMIL/5 - 29 April 2010
DCA/EXMIL/5A - 26 July 2012

DCA/EXMIL/6A Horizontal Stabiliser Spar – Inspection and Rework

Applicability: All model Harvard 2 (AT-6), Harvard 2A (AT-6C), Harvard 3 (AT-6D and SNJ-5), Harvard 4 (AT-6F and SNJ-6), SNJ-7 and T-6G series aircraft fitted with single piece design horizontal stabilizer rear spar connector fittings P/N 77-21021 (4 fittings per spar).

Note: DCA/EXMIL/6A revised to clarify the applicability with no change to the AD requirement. This AD is not applicable to aircraft fitted with two piece connector fittings P/N 77-21021-3 and 77-21021-4 (8 fittings per spar). The accomplishment of requirement 2 is a terminating action to the repetitive inspections mandated by this AD.

Requirement: To prevent vertical and horizontal stabilizer fitting failures, accomplish the following:

1. Remove the fuselage to vertical stabilizer fairing assembly and the rear fairing assemblies at the horizontal stabilizer and visually check the spar connector fittings for cracks. If cracks are found the fitting must be replaced with an airworthy part before further flight.
2. Remove the fuselage to vertical stabilizer fairing assembly and the rear fairing assemblies at the horizontal stabilizer and accomplish the following:
 - Remove the 1/4-inch bolts which attach the upper and lower spar connection fittings (P/N 77-21021) of the rear spar assembly.
 - Remove the 4 connection fittings from the spar, remove the paint from the connection fittings, and inspect for cracks using standard dye penetrant inspection methods. Replace any cracked fittings with serviceable parts and repaint all other fittings.
 - Inspect the fit between the connection fittings and the spar with a feeler gauge prior to installation of the bolts. If gaps are greater than 0.010 inches, install shims as required.
 - Fabricate aluminum shims 3-1/8 inches x 15/16 inch and correct thickness, and place on either side of spar flanges maintaining a parallel overall dimension to fit inside the connection fitting with a maximum clearance of 0.010 inches.

- Drill holes through the shims to match those in the fitting. Remove all chips and reinstall the various parts including the fairings.

(FAA AD 81-14-10, Transport Canada AD CF-82-23 and CASA AD/AT-6/2 Amdt 1 refer)

- Compliance:**
1. Within the next 50 hours TIS or 30 days after 29 April 2010 (the effective date of DCA/EXMIL/6) whichever occurs sooner, and thereafter at intervals not to exceed 20 hours TIS until requirement 2 of this AD is accomplished.
 2. At the next annual inspection unless previously accomplished.

Effective Date: DCA/EXMIL/6 - 29 April 2010
DCA/EXMIL/6A - 26 July 2012

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If additional NZ ADs need to be issued when an unsafe condition is found to exist in an aircraft or aeronautical product in NZ they will be added to the list below.

* [UK CAA AD G-2013-0001](#) Wing Spar Corrosion – Inspection

Effective Date: 11 September 2013