

# Airworthiness Directive Schedule

## Helicopters

### Bell UH-1 Series

25 January 2018

- Notes:** 1. This AD schedule is applicable to Bell UH-1 series helicopters, manufactured under the Federal Aviation Administration (FAA) Type Certificates listed in the table below.

Model	TC Holder	Registrations	FAA TCDS No.	Additional ADs to be reviewed and accordingly complied with:
UH-1B	Rotorcraft Development Corporation (formally Garlick Helicopter Corporation and Garlick Helicopter, Inc.)	HHB	H13WE	Bell 204.
UH-1L	Rotorcraft Development Corporation (formally Garlick Helicopter Corporation, Garlick Helicopter, Inc. and Roy D. Regan & James P. Ross (Co-Partners))	HUE	H5NM	Bell 204.
UH-1H	Hagglund Helicopters LLC. (formally Western International Aviation Inc.)	HSP & HZX	H15NM	Bell 204/205.
UH-1F & UH-1P	Tamarack Helicopters Inc.	HHF & HHU	H7NE	Bell 204/205
UH-1H	Richards Heavylift Helo, Inc. (formally S.M.&T Aircraft, US Helicopter Inc, UNC Helicopter Inc, Southern Aero Corp and Wilco Aviation)	HSX & HJX	H3SO	Bell 204 /205.
UH-1H	Overseas Aircraft Support Inc. (formally Williams Helicopter Corp, Scott Paper Company and Offshores Construction)	HYG	H7SO	Bell 204/205

- The FAA is the National Airworthiness Authority (NAA) responsible for the issue of State of Design Airworthiness Directives (ADs) for these helicopters. State of Design ADs can be obtained directly from the FAA website at [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgAD.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet)
- The Type Certificate Data Sheets (TCDS) for the UH-1 series aircraft require that FAA ADs applicable to the Bell models 204, and/or 205 series be reviewed for applicability, and complied with accordingly as indicated in the aforementioned table.
- The date above indicates the amendment date of this schedule.
- New or amended ADs are shown with an asterisk \*

## Contents

DCA/UH1/1C	Airworthiness Directive Compliance at Initial Airworthiness Certificate Issue.....	3
DCA/UH1/2A	Tail Rotor Drive Shaft Hanger Bearing - Inspection .....	4
DCA/UH1/3	Cancelled – DCA/UH1/1A refers.....	5

DCA/UH1/4	Tail Rotor Drive Gearbox - Inspection.....	5
DCA/UH1/5	Tail Rotor Blades - Inspection.....	5
DCA/UH1/6	Tail Rotor Slider - Inspection.....	6
DCA/UH1/7A	Tailboom Vertical Fin Spar – Inspection .....	6
DCA/UH1/8	Cancelled - Purpose Fulfilled .....	9
DCA/UH1/9	Tail Rotor Yoke – Inspection .....	10
DCA/UH1/10B	Main Rotor Yoke, Trunnion and Mast – Inspection .....	12
DCA/UH1/11A	Mast Assembly – Removal from Service .....	12
DCA/ UH1/12	Tail Rotor Grips – Inspection .....	13
DCA/UH1/13	Tension-Torsion Strap - Retirement Life.....	13
DCA/UH1/14	Tension-Torsion Straps – Tracking by S/N and Retirement Life.....	13
DCA/UH1/15	Tail Rotor Slider – Inspection.....	14
DCA/UH1/16	Landing Gear Forward Crosstubes – Inspection .....	14
DCA/UH1/17	Tail Rotor Blades – Inspection .....	15
DCA/UH1/18	Main Rotor Blades – Inspection .....	15
<p>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 with linked directly to them. You can also obtain them directly from the National Airworthiness Authority (NAA) websites. Links to the NAA websites are available on the CAA website at <a href="http://www.caa.govt.nz/airworthiness-directives/states-of-design/">http://www.caa.govt.nz/airworthiness-directives/states-of-design/</a> 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.</p>		
	.....	16
2013-13-14	Main Rotor Hub Inboard Strap Fittings – Inspection .....	16
2013-13-06	Main Rotor Grips – Inspection .....	16
2014-03-10	Tail Rotor Cable Assembly – Inspection .....	16
2016-23-09	Main Rotor Blades – Inspection .....	16
* 2018-02-07	HTC Main Rotor Blades P/N 204P2100-101 - Inspection .....	16

**DCA/UH1/1C Airworthiness Directive Compliance at Initial Airworthiness Certificate Issue**

**Applicability** All model UH-1 series, TH-1 series and HH-1 series aircraft.

**Note 1:** This AD revised to introduce FAA AD 2012-17-08 which supersedes FAA ADs 79-20-05 and 81-19-02.

**Requirement:** Compliance with the following FAA Airworthiness Directives as applicable is required:

67-06-01	-	Tail rotor blades
67-24-01	-	Sliders on tail rotor assembly
69-15-07	-	Float kit tube
70-06-02	-	Tail rotor grip assembly
71-21-02R1	-	Tail fin and boom
73-16-03	-	Landing gear cross tubes
73-17-04	-	Tail rotor grips
74-02-01	-	Tail rotor trunnion bearings
74-23-02	-	Tail rotor pitch
75-26-03	-	Emergency exit handle
75-26-05	-	Main rotor blades
76-02-06	-	Main rotor blades
76-06-02	-	Fire extinguisher circuit
76-10-01R1	-	Tail boom
76-12-07	-	Tail rotor chains
76-14-03	-	Cross tube assemblies
77-10-07	-	Engine-to-transmission assembly
77-17-03	-	Tail rotor blade pitch horn
77-17-05R1	-	Emergency exit latch pin
78-14-07	-	Skid landing gear
78-20-07	-	Shoulder radius fitting
78-21-02	-	External load link assembly
* 79-20-05R2	-	Main rotor hub & yoke assemblies – Superseded by 2012-17-08
80-03-07	-	Fuselage main beams splice
80-17-09	-	Main rotor straps
80-21-05	-	Landing gear cross tubes
* 81-19-02	-	Main rotor yoke - Superseded by 2012-17-08
83-03-03	-	Tail boom skin joint
83-20-01	-	Tail rotor hub assembly
84-18-03R1	-	Clevis inspection
86-07-07	-	Universal assembly - main rotor
86-17-10	-	T/R hub assembly
88-08-01	-	Rod end bearing assembly
88-25-05	-	Tail rotor grip assembly
89-08-05	-	Trans internal sump oil filter
89-08-06	-	Trans internal sump oil filter
89-17-03	-	Main rotor masts
89-20-12	-	Tail rotor hub assembly
90-01-11	-	Tail rotor gearbox bearing set
90-03-09	-	T/R trunnion bearing housing
90-03-10	-	Tail rotor grips
90-10-05	-	Tail rotor gearbox
92-07-08	-	Swash-plate support assembly
92-13-10	-	Tail rotor bearing
92-23-01	-	Main rotor bolt cracking
92-27-21	-	Tail rotor drive shaft
93-17-12	-	Spider fatigue
94-18-09	-	Lower planetary spider
95-10-07	-	Gearbox failure
96-12-25	-	Main spar doubler
98-11-14	-	Failure of the tail rotor yoke
98-11-15	-	Failure of the tail rotor yoke

99-07-15	-	Tail rotor yoke
99-17-03	-	Failure of the fin spar
99-18-02	-	Vertical fin spar
2000-15-52	-	Fatigue cracks in the damper clamp splined area of a mast
2001-08-04	-	Prevent an actuator piston from unthreading from its rod end
2001-13-01	-	Prevent failure of the retention nut
* 2012-17-08	-	Main rotor yoke

**Note 2:** This list of FAA ADs includes those ADs that were applicable to Bell models 204 and 205 series on 28 February 2002. Compliance with the listed Bell 204/205 ADs may be required per the applicable UH-1 TCDS if any of the affected 204/205 components are fitted.

**Note 3:** Subsequent FAA ADs for the Bell 205 series will be published in the NZ AD schedule DCA/BELL205/\*\*. These ADs must also be reviewed for applicability by UH-1 operators in accordance with the applicable TCDS. There is currently no NZ AD schedule for the Bell 204, as there are no examples of the type registered in NZ. Therefore operators of UH-1 variants that require compliance with Bell 204 ADs will need to obtain these from the FAA. <http://www.faa.gov/aircraft/>

**Compliance:** Compliance is required with these ADs before issue of a New Zealand Certificate of Airworthiness, or at the next ARA inspection, whichever is the sooner, unless previously accomplished.  
Repetitive inspections to be accomplished at intervals not to exceed the times specified in the FAA Airworthiness Directives.

**Effective Date:** DCA/UH1/1 - 20 January 1995  
DCA/UH1/1A - 28 February 2002  
DCA/UH1/1B - 29 November 2007  
DCA/UH1/1C - 28 April 2016

#### **DCA/UH1/2A Tail Rotor Drive Shaft Hanger Bearing - Inspection**

**Applicability** Bell (Garlick) Models UH-1B, UH-1L and Western International Aviation Incorporated Model UH-1H fitted with tail rotor drive shaft hanger bearing P/N 204-040-623-005 having a S/N with a prefix of T or N.

**Requirement:** To prevent failure of a tail rotor drive shaft hanger bearing, failure of the drive shaft and subsequent loss of control of the helicopter, accomplish the following:-

1. Determine the S/N etched on the seal area of the bearing P/N 204-040-623-005. If the bearing has a S/N with a prefix of T or N, accomplish the following inspections of the tail rotor drive shaft and bearings:
  - Visually inspect the bearings for grease leakage that continues for more than 10 hours TIS after installation of a zero-time bearing.
  - Visually inspect the tail rotor drive shaft, bearings and housing for security and damage.
  - Visually inspect the bearings for an overheat condition and inspect overheat indicator stripes for discolouration.
  - Rotate the tail rotor drive shaft by hand while feeling the bearing for binding or roughness.

Replace any bearings before further flight that exhibit signs of continued grease leakage, overheating, binding, roughness, or are otherwise unairworthy and secure any insecure bearings and housings per the applicable maintenance, repair and overhaul manuals.

2. Remove from service any bearing, P/N 204-040-623-005 that has a S/N with a prefix of T or N, and replace with a bearing P/N 204-040-623-005 that has a S/N without a prefix of T or N. Remove and replace bearings per the applicable maintenance, repair and overhaul manuals.

(FAA AD 94-22-09 refers)

**Compliance:**

1. Inspection. Before the first flight of each day, until replaced per part 2.
2. Replacement. Within next 100 hours TIS.

**Effective Date:** DCA/UH1/2 20 January 1995  
DCA/UH1/2A 12 May 1995

**DCA/UH1/3 Canceled – DCA/UH1/1A refers**

**Effective Date:** 28 February 2002

**DCA/UH1/4 Tail Rotor Drive Gearbox - Inspection**

**Applicability** Garlick Helicopters and Western International Aviation Inc, models UH-1B, UH-1H, and UH-1L fitted with a 42-degree tail rotor drive gearbox assembly, P/N 204-040-003-023 or -037.

**Requirement:** To prevent failure of the 42-degree gearbox and loss of control of the helicopter, accomplish the following:-

1. Verify that the tail rotor control system is rigged per the applicable maintenance manual.
2. Disassemble the 42-degree gearbox and inspect for cracks at the roots of the gear teeth on the pinion, P/N 204-040-500-007 or -009, and gear, P/N 204-040-500-008 or -010, using a fluorescent penetrant inspection method per the applicable maintenance manual. Only post emulsified fluorescent penetrant inspection materials Type I, Method B or D, Sensitivity Level 3 or greater are to be used. If any crack is found at the roots of the gear teeth on the pinion or gear, replace with airworthy parts per the applicable maintenance manual, before further flight.
3. Create a component history card for the 42-degree gearbox. Record the number of torque events on a daily basis. A torque event is defined as a takeoff, or a lift with internal or external load.

(FAA AD 95-10-08 refers)

**Compliance:**

1. Before further flight.
2. Before further flight and thereafter at intervals not to exceed 400 torque events.
3. Before further flight.

**Effective Date:** 8 June 1995

**DCA/UH1/5 Tail Rotor Blades - Inspection**

**Applicability** California Department of Forestry, Garlick Helicopters and Western International Aviation Inc, Bell Models TH-1F, UH-1B, UH-1F, UH-1H and UH-1L with tail rotor blades P/N 204-011-702-015 or -121 S/N A-20262 through A-20268, A-20270 through A-20282, A-20284 through A-20287, A-20289 through A-20422, A-20424 through A-20428, A-20430 through A-20433, A-20435 through A-20464, A-20466 through A-20497, A-20499 through A-21019, A-21027 through A-21031, A-21041, A-21047, A-21049 and A-21059.

- Requirement:** To prevent debonding of the main spar leading edge doubler, which could lead to failure of a tail rotor blade, accomplish the following:-
- Clean the tail rotor blade using a mild detergent and water to remove soot and grime. Visually inspect each blade for peeling, flaking or bubbling paint, or corrosion along the bond lines viewed from the root and tip ends of the blade, and at the abrasion strip bond line on both sides of the blade from the root to the tip.
- If the visual inspection indicates peeling, flaking or bubbling paint, remove the paint from the affected area and perform a visual inspection for corrosion. If no corrosion is found, refinish the blade and return to service. If corrosion is noted in the bond lines of the affected areas, remove the blade from service before further flight.
- (FAA AD 96-12-26 refers)
- Compliance:** Within next 10 hours TIS and thereafter at intervals not to exceed 7 calendar days.
- Effective Date:** 10 June 1996

#### **DCA/UH1/6 Tail Rotor Slider - Inspection**

- Applicability:** California Department of Forestry, Erickson Air Crane, Garlick Helicopters, Hawkins and Powers Aviation, International Helicopters, Smith Helicopters, Southwest Florida Aviation, West Coast Fabrications, Western International Aviation, Williams Helicopter Technology, and UNC Helicopters; models HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P.
- Requirement:** To prevent fatigue failure of the tail rotor slider, which could cause loss of the tail rotor and subsequent loss of control of the helicopter, accomplish the following:-
- Using a calibrated calliper or micrometer, measure the outside diameter of the splined shaft (barrel) of the slider, P/N 204-010-720-3 or P/N 204-010-720-003, at two points that are 90 degrees apart on the outside circumference of the barrel, one-half to one inch from either end of the slider. If the outside diameter of the slider is less than 1.300 inches, remove the slider and replace it, prior to further flight, with a slider that has an outside diameter of 1.300 inches or greater.
- (FAA AD 97-01-06 refers)
- Compliance:** Within next 5 hours TIS.
- Effective Date:** 14 February 1997

#### **DCA/UH1/7A Tailboom Vertical Fin Spar – Inspection**

- Applicability:** California Department of Forestry; Firefly Aviation Helicopter Services (Previously Erickson Air Crane Co.); Garlick Helicopters, Inc.; Hawkins And Powers Aviation, Inc.; International Helicopters, Inc.; Tamarack Helicopters (Previously Ranger Helicopter Services, Inc.); Robinson Airplane; Williams Helicopter Corporation (Previously Scott Paper Co.); Smith Helicopters; Southern Helicopter Inc.; Southwest Florida Aviation; Utah State University; Western International Aviation, Inc.; UNC Helicopters; and U.S. Helicopter, Inc model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, UH-1P helicopters, installed with tailboom vertical fin spar, P/N 205-032-899 all dash numbers, 205-030-846 all dash numbers, or 205-032-851 all dash numbers.
- Requirement:** To prevent in-flight failure of the tailboom vertical fin spar and subsequent loss of control of the helicopter, accomplish the following:-
- (a) Within 8 hours time-in-service (TIS), modify the vertical fin spar as follows:
- (1) Remove the 42° gearbox cover and open the drive shaft cover on the fin spar assembly (see Figure 1).

(2) Remove the first four rivets from the fin spar located at the bottom of the fin spar left-hand side at the tailboom and fin spar junction, and the first four rivets aft of the junction along the lower edge of the fin spar side-skin as shown (see Figure 2).

(3) Trim the fin spar left-hand skin using extreme care to not damage the fin spar assembly (see Figure 3).

(4) Deburr the rivet holes and trimmed skin edges. Remove all debris. In a ventilated work area, remove any surface contaminants with a cloth that has been dampened with aliphatic naphtha or an equivalent cleaning solvent.

(5) Reattach the side-skin to the fin spar using MS 20470AD rivets. DO NOT install the bottom two rivets into the fin spar where the skin was trimmed.

(6) Attach the fin spar side-skin lower edge using the rivets specified in Figure 3.

(7) Refinish all reworked areas.

(b) After modifying the fin spar assembly, inspect the fin spar for cracks before further flight and thereafter, at intervals not to exceed 8 hours TIS as follows:

(1) Remove the lower aft tailboom inspection door, located at tailboom station 180 (see Figure 1).

(2) Remove the 42° gearbox cover and open the drive shaft cover on the fin (see Figure 1).

(3) In a ventilated work area, clean all surfaces to be inspected with a cloth dampened with aliphatic naphtha or an equivalent cleaning solvent.

(4) Through the lower aft tailboom inspection door, using a bright light and an inspection mirror, inspect the fin spar assembly adjacent to the tailboom top skin on the forward side, paying special attention to the left-hand edge and the adjacent surfaces (see Figures 1 and 2).

(5) Using a bright light and a 10x or higher magnifying glass, inspect the fin spar assembly adjacent to the tailboom top-skin on the in-board and out-board sides, the vertical edge, and the two open rivet holes. Using a bright light and a mirror, inspect the aft side of the fin spar in the same area. Special attention must be given to the left-hand edge of the fin spar and any adjacent surfaces between fin stations 66.31 and 71.31 (see Figure 2).

(6) If any crack is discovered on the fin spar, replace the fin spar assembly with an airworthy fin spar assembly before further flight.

(c) Within 50 hours TIS, and thereafter at intervals not to exceed 50 hours TIS, inspect the fin spar assembly as follows:

(1) Remove the 42° gearbox cover and open the driveshaft cover on the fin spar assembly (see Figure 1). Remove the aft lower fin fairing and fin access panels that allow access to the aft side of the forward fin spar and the secondary spar (see Figure 1).

(2) In a ventilated work area, clean all surfaces to be inspected with a cloth dampened with aliphatic naphtha or an equivalent cleaning solvent. Using a bright light, 10x or higher magnifying glass, and a borescope as required, inspect all of the fin ribs, fittings, skins, and secondary aft spar of the fin assembly (see figures 4 & 5). Pay particular attention to the upper and lower fittings at tailboom station 227 for cracked or corroded fittings or sheared or loose rivets.

(3) Gain access to the canted bulkhead aft of tailboom station 194.30 through the most aft lower access covers by removing the aft access covers or position light fairings as required. Visually inspect the canted bulkhead forward and aft sides through the lower tailboom inspection hole and position light access holes for cracks, corrosion, or loose or sheared rivets in all skins, fittings and bulkheads using a bright light, an inspection mirror, and a borescope as required (see Figures 4 and 5). Pay particular attention to the area in the upper forward corners of the aft skin directly around the fin spar assembly and the overlap area of the top skin beneath the 42° gearbox for cracks, which are only visible from the underside.

(4) Any crack found in the fin spar assembly requires replacement with an airworthy part. Any corrosion, loose or sheared rivets, or cracked skins or ribs found within the inspection areas must be repaired prior to further flight.

(d) Within 50 hours TIS, modify the fin spar as follows:

(1) Remove the 42° gearbox cover and open the driveshaft cover on the fin spar assembly (see Figure 1).

(2) Remove the next 10 rivets from the fin spar located at the bottom of the fin spar left-hand side at the tailboom and fin spar junction (see Figures 6 and 7, whichever is applicable).

CAUTION: Extreme care must be taken when drilling and removing rivets from the side of the fin spar to ensure the fin spar assembly is not damaged.

(3) Trim the fin left-hand side skin using extreme care to not damage the fin spar assembly to expose the spar outboard edge (See Figure 6 or 7, whichever is applicable).

(4) Deburr the rivet holes and trimmed side skin edges. Remove all debris. In a ventilated work area, remove any surface contaminants with a cloth that has been dampened with aliphatic naphtha or an equivalent cleaning solvent.

(5) Fabricate cover plates in accordance with the notes and drawings of Figure 8 or 9, whichever is applicable. Ream prepare the holes in the fin spar and parts and install HI-LOK fasteners.

*Note: Bell Helicopter Medium Structural Repair Manual, BHT-MED-SRM-1, pages 3-36 through 3-38, pertains to this installation and reaming procedure.*

(6) Refinish all reworked areas, close driveshaft and replace 42° gearbox cover.

(e) After modification of the fin spar assembly, before further flight and thereafter at intervals not to exceed 100 hours TIS, inspect the fin spar for cracks as follows:

(1) Remove the 42° gearbox cover, open the driveshaft cover on the vertical fin spar assembly, and remove the spar cover plate and filler plate from the lower left-hand side of the fin assembly (see Figures 1 and 8 or 9, whichever is applicable).

CAUTION: Extreme care must be taken when removing the cover plate and filler from the side of the fin spar to ensure that the spar assembly is not damaged.

(2) In a ventilated work area, clean the surface to be inspected with a cloth dampened with aliphatic naphtha.

CAUTION: Do not use chemical paint strippers. Use Scotch-Brite Grade-A VFN and methyl-ethyl ketone (MEK) or a suitable solvent to remove the paint and primer in the inspection area.

(3) Perform a dye-penetrant inspection of the exposed area of the fin spar (see Figures 6 and 7).

*Note: ASTM E1416 or MIL-STD-6866, or the Bell Helicopter Standard Practices Manual, BHT-ALL-SPM, Chapter 6.2, pertains to this inspection.*

(4) If any crack is discovered on the fin spar, replace the fin spar assembly with an airworthy fin spar assembly before further flight.

(5) After inspection, apply zinc chromate primer to the bare surfaces. When dry, re-install the cover plate and the filler using fasteners specified in Figure 8 or 9, whichever is applicable.

(6) Install the 42° gearbox cover and the driveshaft cover.

(f) Within 12 calendar months, remove the fin spar, P/N 205-030-846-all dash numbers, P/N 205-032-899-all dash numbers, or P/N 205-032-851-all dash numbers, whichever is applicable, and replace it with an airworthy fin spar configuration that has been demonstrated to the FAA to satisfy the structural fatigue requirements of repeated high torque events.

(g) Replacing the fin spar, P/N's 205-032-899-all dash numbers, 205-030-846-all dash numbers, or 205-032-851-all dash numbers, with an airworthy fin spar that has been demonstrated to the FAA to satisfy the structural fatigue requirements of repeated high torque events, constitutes a terminating action for the requirements of this AD.

(FAA AD 99-25-12 refers)

*Note: The figures referred to in this AD were mailed directly to aircraft owners before the effective date. They are the same figures that form part of FAA AD 99-25-12. These will be provided free of charge to owners and maintenance engineers and may be obtained from:*

*The Library  
Civil Aviation Authority  
PO Box 31441  
Lower Hutt*

**Compliance:** Compliance is required at the times specified within the requirement of this airworthiness directive.

**Effective Date:** DCA/UH1/7 – 26 September 1997  
DCA/UH1/7A – 27 January 2000

**DCA/UH1/8 Canceled - Purpose Fulfilled**

**DCA/UH1/9 Tail Rotor Yoke – Inspection**

**Applicability:** California Department of Forestry; Firefly Aviation Helicopter Services (Previously Erickson Air-Crane); Garlick Helicopters; Hawkins & Powers Aviation, Inc.; International Helicopters, Inc.; Ranger Helicopter Services; Robinson Airplane, Inc.; Scott Paper Co. (Formerly Off Shore); Smith Helicopters; Southern Helicopter, Inc.; Southwest Florida Aviation; Utah State University; UNC Helicopter Inc. (Formerly Williams Helicopter); US Helicopter, Inc.; Western International Aviation, Inc.; and Tamarack Helicopters:

Model HH-1K (Type Certificate Data Sheet (TCDS) H5NM), TH-1F (TCDS H12NM, and R00008AT), TH-1L (TCDS H5NM, H7SO, and H4NM), UH-1A (TCDS H3SO), UH-1B (TCDS H1RM, H3NM, H13WE, H3SO, H5SO, and R00012AT, H7SO), UH-1E (TCDS H5NM, H7SO, H8NM, and H4NM), UH-1F (TCDS H2NM, H7NE, H11SW, H12NM, and R00008AT), UH-1H (TCDS H13WE, H3SO, and H15NM, R00007DE, H7SO), UH-1L (TCDS H5NM, H7SO, and H4NM), UH-1P (TCDS H12NM, and R00008AT), and SW204 (TCDS H6SO), SW204HP (TCDS H6SO), SW205 (TCDS H6SO), and SW205A-1 (TCDS H6SO) helicopters, with tail rotor yoke, P/N 212-011-702-all dash numbers, P/N 212-010-704-all dash numbers, or P/N 212-010-744-all dash numbers, installed.

**Requirement:** To detect static or dynamic overload on the tail rotor yoke (yoke) due to external bending forces, which could result in failure of the yoke, loss of the tail rotor, and subsequent loss of control of the helicopter, accomplish the following:-

(a) Before further flight, review all historical records of the helicopter and the identified yoke assembly for any static or dynamic incident history that could have imposed an excessive bending load on the yoke. If such a history exists, before further flight, replace the yoke assembly with a yoke assembly specified in paragraph (c) and install the flapping stop or trunnion assembly as specified in paragraph (d).

*Note 1: Examples of excessive bending loads include exposure to high wind gusts (such as those from rotor wash or prop blast), improper ground handling (in which the tail rotor blade has been used as a hand hold), improper feathering bearing removal (in which the yoke is not properly supported when pressing out bearings), or an incident in which a damaged tail rotor blade was replaced due to a static ground blade strike.*

(b) Identify the trunnion assembly or flapping stop that is installed on the aircraft tail rotor assembly to determine if it is a flapping stop or trunnion and, if it is a flapping stop, to determine if the correct flapping stop is installed (see Figures 1 and 2).

*Note 2: Helicopters with yoke assemblies, P/N 212-010-704-all dash numbers or P/N 212-010-744-all dash numbers, have trunnion assemblies installed that look similar. Trunnion assemblies, P/N 205-012-716-001 and P/N 212-010-703-001, are manufactured from machined material and do not have the proper characteristics to act as a yield indicators for the yoke assembly. When installed, these trunnion assemblies may be identified by the presence of a flanged bushing (split lines) at each bolt hole, readily visible externally when viewed inboard of the trunnion halves adjacent to each bearing. The trunnion assembly, P/N 212-010-738-001, is manufactured from a casting and does not incorporate bushings at the bolt locations. No bushing will be visible when viewing the assembled trunnion. Helicopters with yoke assemblies, P/N 212-011-702-all dash numbers, are assembled with a flapping stop configuration. The original flapping stop, P/N 212-011-713-001 has been redesigned. The redesigned flapping stop, P/N 212-011-713-103, will act as a yield indicator to provide visual verification of a yoke assembly that has been subjected to excessive out-of-plane bending loads (see Figure 5).*

(c) Within the next 180 calendar days (for yokes not replaced immediately per paragraph (a) of this AD), remove the yoke assembly and replace it with an airworthy yoke assembly having zero hours TIS, or with an airworthy yoke assembly (regardless of TIS) that has passed an X-ray diffraction inspection per Part II of Bell Alert SB 212-96-100, Revision A, dated May 18, 1998.

(d) When the yoke assembly is replaced, for helicopters with a yoke assembly, P/N 212-011-702-all dash numbers, install an airworthy tail rotor flapping stop, P/N 212-011-713-103, and for helicopters with yoke assemblies, P/N 212-010-704-all dash numbers or P/N 212-010-744-all dash numbers, install an airworthy trunnion assembly, P/N 212-010-738-001. If any incident as described in paragraph (a) of this AD occurs after the effective date of this AD and prior to compliance with paragraph (c), then compliance with paragraphs (c) and (d) is required before further flight.

*Note 3: Yoke assemblies that have passed an x-ray diffraction inspection at BHTI will have the letters "FM" vibro-etched on them following the serial number.*

(e) After accomplishing the requirements of paragraphs (c) and (d) of this AD, thereafter, at intervals not to exceed 25 hours TIS, or before further flight after any incident as described in paragraph (a) of this AD, inspect the trunnion assembly or flapping stop as follows:

(1) Gain access to the tail rotor assembly to allow close viewing of the inboard section of the trunnion assembly or flapping stop, whichever is installed. Perform a visual inspection of the inboard section of the trunnion assembly (see Figure 3) or the flapping stop (see Figure 4) for deformation. Inspect by gently placing the tail rotor yoke against one flapping stop or trunnion stop, allowing full view of the opposite stop. Repeat in opposite direction to allow viewing of the opposite stop.

(2) If either the trunnion stop or flapping stop is deformed or bent as shown in Figure 3 or Figure 4, the yoke assembly and trunnion stop or flapping stop are no longer serviceable and must be replaced with an airworthy yoke assembly that has zero hours TIS or has passed x-ray diffraction inspection, and an airworthy flapping stop or trunnion stop.

(f) Within 30 calendar days after the effective date of this AD, insert the following pen and ink changes under the Operating Procedures and Maneuvers Pre-Flight Checks section of the Rotorcraft Flight Manual or Operational Manual:

"Tail rotor yoke -- Preflight visual check for static stop contact damage (deformed static stop or trunnion yield indicator)."

*Note 4: Operators who use aircraft that have any of these affected yoke assemblies installed should use tail rotor tie downs when the aircraft is parked or stored.*

*(FAA AD 99-07-15 refers)*

**Compliance:** Compliance is required at the times specified within the requirement of this airworthiness directive.

*Note 5: The figures referred to in this AD were mailed to affected aircraft owners when the AD became effective. They are the same figures contained in FAA AD 99-07-15.*

**Effective Date:** 22 April 1999

**DCA/UH1/10B Main Rotor Yoke, Trunnion and Mast – Inspection**

**Applicability:** Arrow Falcon Exporters, Inc. (Previously Utah State University); Firefly Aviation Helicopter Services (Previously Erickson Air-crane Co.); Garlick Helicopters, Inc.; Hawkins and Powers Aviation, Inc.; International Helicopters, Inc.; Robinson Air Crane, Inc.; Smith Helicopters; Southern Helicopter, Inc.; Southwest Florida Aviation; Tamarack Helicopters, Inc. (Previously Ranger Helicopter Services, Inc.); U.S. Helicopter, Inc.; Western International Aviation, Inc., and Williams Helicopter Corporation (Previously Scott Paper Co.): Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P; and Southwest Florida Aviation SW204, SW204HP, SW205, and SW205A-1 helicopters, manufactured by Bell Helicopter Textron Inc. (BHTI) for the Armed Forces of the United States, with main rotor mast, P/N 204-011-450-007, -105, or -109, or main rotor trunnion, P/N 204-011-105-001, installed.

**Requirement:** To prevent failure of a main rotor mast or main rotor trunnion, separation of main rotor system, and subsequent loss of the helicopter, accomplish FAA AD 2002-01-31.

**Note:** This AD requires using new factors to recalculate the factored flight hours and the accumulated Retirement Index Number (RIN) for masts installed on certain helicopter models. This AD also expands the S/N applicability for the one-time special inspection of the mast.

**Compliance:** Compliance is required at the times specified in FAA AD 2002-01-31.

**Effective Date:** DCA/UH1/10A – 16 November 2000  
DCA/UH1/10B – 21 February 2002

**DCA/UH1/11A Mast Assembly – Removal from Service**

**Applicability:** Firefly Aviation Helicopter Services (previously Erickson Air Crane Co.); Garlick Helicopters, Inc.; Hawkins And Powers Aviation, Inc.; International Helicopters, Inc.; Tamarack Helicopters, Inc. (previously Ranger Helicopter Services, Inc.); Robinson Air Crane, Inc.; Williams Helicopter Corporation (previously Scott Paper Co.); Smith Helicopters; Southern Helicopter, Inc.; Southwest Florida Aviation; Arrow Falcon (previously Utah State University); Western International Aviation, Inc.; and U.S. Helicopter, Inc. Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P; and Southwest Florida Aviation SW204, SW204HP, SW205, and SW205A-1 helicopters with a main rotor mast assembly, P/N 204-011-450-001 or -005, installed.

**Requirement:** To prevent fatigue failure of the mast and subsequent loss of control of the helicopter, remove any mast assembly, P/N 204-011-450-001 or -005, from service. Replace with an airworthy mast assembly. Neither mast, P/N 204-011-450-001 nor 204-011-450-005, are eligible for installation on any affected helicopter.

(FAA AD 2000-15-21R1 refers)

**Compliance:** Within next 25 hours TIS.

**Effective Date:** DCA/UH1/11 – 17 August 2000  
DCA/UH1/11A – 30 November 2000

**DCA/ UH1/12 Tail Rotor Grips – Inspection**

**Applicability:** Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P; Southwest Florida Aviation SW204, SW204HP, SW205, and SW205A-1 Helicopters manufactured by Bell Helicopter, with tail rotor (T/R) grip, part number (P/N) 205-011-711-101, installed.

**Requirement:** To prevent failure of the T/R grip and subsequent loss of control of the helicopter, accomplish the following:

Clean the T/R grip. Determine if the T/R grip is made of steel by placing a magnet on the exterior of the main body of the T/R grip. Do not make this determination by placing the magnet on the steel bushing or steel interior liner. If the main body of the T/R grip is not made of steel, replace it with an airworthy steel T/R grip. Only replacement T/R grips made of steel are eligible for installation.

(FAA AD 2002-13-51 refers)

**Compliance:** Before further flight unless already accomplished

**Effective Date:** 2 July 2002

**DCA/UH1/13 Tension-Torsion Strap - Retirement Life**

**Applicability:** Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P; and Southwest Florida Aviation Model SW204, SW204HP, SW205, and SW205A-1 helicopters, manufactured by Bell Helicopter Textron, with main rotor tension-torsion (TT) strap, P/N 204-012-122-1, 204-012-122-5, 2601399, or 2606650, installed.

**Requirement:** To prevent failure of a TT strap, loss of a main rotor blade, and subsequent loss of the helicopter, accomplish the following:-

Remove and replace any TT strap with 1,200 hours TIS or 24 months since the initial installation, whichever occurs first.

(FAA AD 2002-20-01 refers)

**Compliance:** From 31 October 2002

**Effective Date:** 31 October 2002

**DCA/UH1/14 Tension-Torsion Straps – Tracking by S/N and Retirement Life**

**Applicability:** All model UH-1 series, TH-1 series and HH-1 series.

**Requirement:** To prevent failure of a tension-torsion (TT) strap, loss of a main rotor blade, and subsequent loss of the helicopter, accomplish the following:-

Record the S/N of each TT strap (including those held as spares) and track the history of each since first installation from new. Remove from service before further flight, any TT strap that has exceeded its retirement life.

**Compliance:** Before further flight.

**Effective Date:** 2 June 2004

**DCA/UH1/15 Tail Rotor Slider – Inspection**

**Applicability:** Model UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L and UH-1P aircraft fitted with tail rotor slider P/Ns 204-010-720-3 or 204010720-3.

**Requirement:** To prevent failure of the tail rotor slider which could result in loss of tail rotor control and subsequent control of the helicopter, accomplish the following:

1. Review the aircraft records to determine the Commercial and Government Entity (CAGE) code of the tail rotor slider. If necessary, remove the tail rotor slider to determine the CAGE code.

If the tail rotor slider is an original equipment manufacturer (OEM) part, or has a legible CAGE code other than 15716 or 26098, no further action is required.

2. If the tail rotor slider has CAGE codes 15716 or 26098, or an illegible CAGE code, or does not have a CAGE code and is not an OEM part (refer note 3), replace with an approved part (refer note 1).

(FAA AD 2006-19-05 refers)

**Note 1:** Replacing the tail rotor slider with a manufacturer approved slider without a CAGE code or with a legible CAGE code other than 15716 or 26098, is a terminating action to the requirements of this AD.

**Note 2:** Do not install tail rotor sliders that were previously removed from service per requirement 2.

**Note 3:** Tail rotor sliders manufactured by Bell Helicopter Textron, Inc. have a vibro-etched P/N on them and do not have a CAGE code marking on the part.

**Note 4:** Tail rotor sliders manufactured by Forest Scientific, Inc. were produced under a military contract and do not meet the OEM specifications.

**Compliance:**

1. Within 50 hours TIS or by 29 September 2006, whichever occurs sooner.
2. Replace the tail rotor slider with an approved part before accumulating 1000 hours TTIS on the tail rotor slider, or by 16 October 2006, whichever occurs sooner.

**Effective Date:** 15 September 2006

**DCA/UH1/16 Landing Gear Forward Crosstubes – Inspection**

**Applicability:** Model AH-1G, AH-1S, HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L and UH-1P aircraft, and

Southwest Florida Aviation model UH-1B (SW204 and SW204HP) and UH-1H (SW205) aircraft,

Fitted with Aeronautical Accessories, Inc. (AAI), Low Skid Landing Gear Forward Crosstubes P/N 212-320-103, S/N 574 through to 628 with an 'AA' prefix.

**Note 1:** Aircraft embodied with AAI Low Skid Gear Assembly Kits P/N 412-320-500 or 412-320-502 and model UH-1B and UH-1H aircraft embodied with STC No. SR01924AT are fitted with crosstubes P/N 212-320-103.

**Requirement:** To prevent failure of a crosstube which can result in collapse of the landing gear, accomplish the following:

Review the aircraft records or inspect the landing gear forward crosstubes and determine if an affected crosstube is fitted to the aircraft. If any affected crosstubes are found fitted, replace with an airworthy crosstube before further flight.

**Note 2:** AAI Alert Service Bulletin ASB No. AA-10012 dated 5 March 2010 contains guidance that pertains to the subject of this AD. AAI Instructions for Continued Airworthiness AA-01136 contains instructions for crosstube replacement. A copy of ASB No. AA-10012 can be obtained from Aeronautical Accessories, Inc. at: <http://www.edwards-assoc.com/aeronautical-accessories/technical-reports/technical-reports.aspx>  
(FAA AD 2010-14-12 refers)

**Compliance:** Within the next 25 hours TIS unless previously accomplished.

**Effective Date:** 26 July 2010

#### **DCA/UH1/17 Tail Rotor Blades – Inspection**

**Applicability:** Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, and UH-1P helicopters, and Southwest Florida Aviation Model UH-1B series (SW204 series and SW204HP) and UH-1H series (SW205 series) helicopters, with a tail rotor blade (blade) P/N 212-010-750-009 through -129, all S/N except S/N with a prefix of "A" or "AFS," and the number 11926, 13351, 13367, 13393, 13400, 13402, 13515, 13540, 13568, 13595 through 13602, 13619 and subsequent larger numbers.

**Note 1:** A blade inspected and modified by FAA AD 2002-09-04 or FAA AD 2007-22-02 for the Bell Helicopter Textron (Bell) model 205A, 205A-1, 205B, 212, 412, 412CF and 412EP helicopters satisfies the requirements of this AD.

**Requirement:** To prevent failure of tail rotor blades, accomplish the requirements in FAA AD 2012-14-12.

**Note 2:** A copy of FAA AD 2012-14-12 can be obtained from the FAA AD web site at [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgAD.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet)

**Note 3:** Bell Helicopter Textron Alert Service Bulletin No. 212-00-111, revision D, dated 18 March 2005 pertains to the subject of this AD.  
(FAA AD 2012-14-12 refers)

**Compliance:** At the compliance times specified in FAA AD 2012-14-12 unless previously accomplished.

**Effective Date:** 30 August 2012

#### **DCA/UH1/18 Main Rotor Blades – Inspection**

**Applicability:** Model HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L and UH-1P helicopters fitted with a main rotor blades P/N 204-012-001-023 or -033; P/N 210-015-001-101; P/N 212-015-501-005, -111, -113, -115, -117, -119 or -121.

**Requirement:** To prevent main rotor blade failure, accomplish the requirements in FAA AD 2012-17-10.

**Note 1:** A copy of FAA AD 2012-17-10 can be obtained from the FAA AD web site at [http://rgl.faa.gov/Regulatory\\_and\\_Guidance\\_Library/rgAD.nsf/MainFrame?OpenFrameSet](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgAD.nsf/MainFrame?OpenFrameSet)

**Note 2:** Bell Helicopter ASB No. 205B-08-51 revision B, dated 11 January 2011 for Bell 205B helicopters, ASB No. 210-08-03 revision B, dated 10 January 2011 for Bell 210 helicopters, and ASB No. 212-08-130 revision B, dated 11 January 2011 for Bell 212 helicopters pertains to the subject of this AD.  
(FAA AD 2012-17-10 refers)

**Compliance:** Within the next 25 hours TIS and thereafter at intervals not to exceed 25 hours TIS.

**Effective Date:** 28 September 2012

**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 with linked directly to them. You can also obtain them directly from the National Airworthiness Authority (NAA) websites. Links to the NAA websites are available on the CAA website at <http://www.caa.govt.nz/airworthiness-directives/states-of-design/> 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.**

**2013-13-14 Main Rotor Hub Inboard Strap Fittings – Inspection**

**Applicability:** Refer to the FAA AD.

**Effective Date:** 24 July 2013

**2013-13-06 Main Rotor Grips – Inspection**

**Applicability:** Refer to the FAA AD.

**Effective Date:** 10 September 2013

**2014-03-10 Tail Rotor Cable Assembly – Inspection**

**Applicability:** Refer to the FAA AD.

**Effective Date:** 26 March 2014

**2016-23-09 Main Rotor Blades – Inspection**

**Applicability:** Refer to the FAA AD.

**Effective Date:** 27 December 2016

**\* 2018-02-07 HTC Main Rotor Blades P/N 204P2100-101 - Inspection**

**Applicability:** Bell model TH-1F, UH-1B, UH-1F, UH-1H, and UH-1P series helicopters fitted with Helicopter Technology Company (HTC) MRBs P/N 204P2100-101.

**Effective Date:** 1 February 2018