#### **URGENT**

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

# ONE TIME INSPECTION FOR SUSPECT TAIL ROTOR INBOARD RETENTION PLATES FOR ALL H-60 BLACKHAWK HELICOPTERS

Headquarters, Department of the Army, Washington, D.C. 30 November 1995

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# **NOTE**

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

# 1. Priority Classification. Urgent

- a. Aircraft in Use. Upon receipt of this TECHNICAL BULLETIN (TB) the condition status symbol of the cited aircraft will be changed to a **circled red "X"**. **The circled red "X"** may be cleared when the inspection of paragraph 8 below is completed. Failure to comply with the requirements of this Technical Bulletin prior to next flight will cause the status symbol to be upgraded to a red "X". Aircraft away from home base may be placed on a circled red "X" for a one time direct flight to the nearest military base with adequate security and maintenance capabilities.
  - b. Aircraft in Depot Maintenance. Aircraft will not be issued until compliance with this TB has been completed.
  - c. Aircraft Undergoing Maintenance. Same as paragraph 1a.
  - d. Aircraft in Transit. Same as paragraph 1a.
  - e. Maintenance Trainers (Category A and B) Same as paragraph 1a.
- f. Component/Parts in Stock Including War Reserves at all Levels (Depot and Others). Upon receipt of this TB all items listed in paragraph 6 and 7 below shall be placed in condition code "J" and retagged with a test/modification Tag/Label--suspended (Brown Tag) DD Form 1575 or (Brown Label) DD Form 1575-1. The inspection block shall state: "Inspection due per SOF message UH-60-96-02 (TB 1-1520-237-20-173)." Do not remove the existing material condition tags. All components/parts listed shall be inspected prior to issue or installation on aircraft. To provide a cost estimate to perform the inspection below. Distribution depots shall contact AMSAT-I-SDP, commercial 314-263-5629/2372 or DSN 693-5629/2372. Distribution depots shall report compliance IAW paragraph 14d.

<sup>\*</sup>This TB supersedes USAATCOM SOF message 252130Z November 1995 (UH-60-96-SOF-02).

- (1) Inspection of assembly components in stock listed in paragraph 6 (All Condition Codes).
  - (a) Inspect tail rotor gear box for serial number of tail rotor inboard retention plate.
- (b) If the tail rotor inboard retention plate does not, repeat, not have a serial number of C1324-001 thru C133324-150 or FM00001 thru FM00142, the inspection is complete. Return the component to its original material condition classification and annotate the original material condition tag that the component was inspected OK IAW this (TB). Report IAW paragraph 14d.
- (c) If the gearbox retention plate has a serial number of C1324-001 thru C1324-150 or FM00001 thru FM00142, place the assembly component (Item in paragraph 6) in condition code "D" and prepare DD Form 1576 Test/Modification tag Material. Annotate the authority block with "T/R retention plate requires fatigue life validation (UH-60-96-02) (TB 1-1520- 237-20-173)." Do not remove original material condition tag. Report IAW paragraph 14d.
  - (2) Inspection of parts in stock listed in paragraph 7 (All Conditions Codes)
    - (a) Locate the serial number etched on the side of the tail rotor inboard retention plate.
- (b) If the tail rotor inboard retention plate does not, repeat, not have a serial number of C1324-001 thru C1324-150 or FM00001 thru FM00142, the inspection is complete. Return the part to its original material condition classification and annotate the original material condition tag that the component was inspected OK IAW this (TB). Report IAW paragraph 14d.
- (c) If the retention plate has a serial number of FM00001 thru FM00142, place the material in condition code "D" and prepare DD Form 1576 test/modification tag materiel. Annotate the authority block with "T/R Retention Plate requires fatigue life validation (UH-60-96-02 (TB 1-1520-237-20-173)." Do not remove original condition Tag. Report IAW 14d.
- (d) If the retention plate has serial number of C1324-001 thru C1324-150, check operating time from the item historical records.
- (1) If the item is new, originally in condition code "A" (or "D" if the only requirement was validation of fatigue testing) and was tagged with a DD Form 1574 serviceable tag material, change the condition code to "B". Annotate the remarks block to read "Retirement life reduced to 148 hours IAW UH-60-96-02 (TB 1-1520-237-20-173)." Report IAW paragraph 14d.
  - (2) If the item shows time since new or was in a condition code other than "A", place the materiel in condition code "D" and prepare DD Form 1576 test/modification tag materiel. Annotate the authority block with "T/R retention plate requires fatigue life validation (UH-60-96-02) (TB 1-1520-237-20-173)." Do not remove original condition tag. Report IAW paragraph 14d.
- 2. Task/Inspection Suspense Date. Prior to next flight.
- 3. Reporting Compliance Suspense Date. No later than 15 December 1995 per paragraph 14a of this (TB).

# 4. Summary of the Problem.

- a. Tail rotor inboard retention plates manufactured by Aerex manufacturing company, cage code 5K840, and fenn manufacturing, cage code 82001, have not completed testing to validate fatigue life. a weibayes analysis was performed on the Aerex component and an interim fatigue life of 148 hours has been assigned. A strength reduction analysis was performed on the fenn component to assign a reduced fatigue life. However, the analysis indicated level flight would cause fatigue damage with any type of strength reduction. Based upon this analysis, a reduced fatigue life could not be calculated and the Fenn manufactured components shall be removed from service until completion of fatigue testing.
  - b. For manpower/downtime and funding impacts, see paragraph 12
- c. The purpose of this TB is to inspect for suspect tail rotor inboard retention plates. Fenn manufactured components shall be removed from service until completion of the fatigue testing. Aerex manufactured components shall be re identified as having an interim fatigue life of 148 hours. If the Aerex component exceeds this interim fatigue life, it shall be removed from service until a new fatigue life can be established upon completion of the fatigue testing.
- **5. End Items to be Inspected**. All H-60 aircraft. Aircraft serial numbers 95-26610 and subsequent will be inspected/corrected by contractor during production and therefore records for aircraft serial numbers 95-26610 and subsequent will not require identification of this action.

# 6. Assembly components to be inspected.

NOMENCLATURE	PART NUMBER	NSN
T/R GEARBOX ASSEMBLY	70358-06600-041	1615-01-074-1222
T/R GEARBOX ASSEMBLY	70358-06600-042	1615-01-102-6052
T/R GEARBOX ASSEMBLY	70358-06600-043	1615-01-105-1510
T/R GEARBOX ASSEMBLY	70358-06600-044	1615-01-280-4444
T/R GEARBOX ASSEMBLY	70358-06600-046	1615-01-376-5089

# 7. Part to be Inspected.

NOMENCLATURE	PART NUMBER	NSN
T/R RETENTION PLATE	70358-06612-042	1615-01-074-5153

**8. Inspection Procedures**. Inspect tail rotor inboard retention plate, P/N 70358-06612-042, for serial numbers C1324-001 through C1324-150 and FM00001 through FM 00142. If the serial number is not in one of the ranges listed above, the inspection is complete. If the serial number is in one of the ranges listed above, perform the correction procedures in paragraph 9.

# 9. Correction Procedures.

a. If the inboard retention plate has serial number C1324-001 through C1324-150, change DA Form 2408-16 to indicate an interim retirement life of 148 hours. If the inboard retention plate has over 148 hours, remove, replace, and hold the suspect retention plate and complete the reporting requirements in paragraph 14b. See paragraph 10d for disposition of component.

b. If the inboard retention plate has a serial number FM00001 through FM00142, remove, replace and hold the suspect retention plate and complete the reporting requirements in paragraph 14b. See paragraph 10d for disposition of component.

# 10. Supply/Parts and Disposition.

- a. Parts Required. Item cited in paragraph 7 may be required to replace defective items.
- b. Requisitioning Instructions. Requisition replacement parts through normal supply channels using normal supply procedures. All requisitions shall use project code "XBT" (XRAY-BRAVO-TANGO) per this TB.

#### **NOTE**

# Project code "XBT" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of ASAM/SOF actions

- c. Bulk and Consumable Materials. N/A
- d. Disposition. Complete the reporting requirements in paragraph 14b and hold the component until further notice from the utility helicopters PMO. After completion of the fatigue testing, each reported case will be informed as to whether the component is or is not acceptable for service.
  - e. Disposition of Hazardous Material. N/A

# 11. Special Tools, Jigs and fixtures Required. N/A

# 12. Application.

- a. Category of Maintenance. AVUM. Aircraft downtime will be charged to AVUM.
- b. Estimated Time Required.
  - (1) Perform Inspection.
    - (a) Total of .5 man-hour using 1 person.
    - (b) Total of .5 hour downtime for one end item.
  - (2) Replace Inboard Retention Plate.
    - (a) Total of 4 man-hours using 2 persons
    - (b) Total of 8 hours downtime for one end item.
- c. Estimated cost impact of stock fund items to the field.

NOMENCLATURE	PART NUMBER	NSN	COST
T/R RETENTION PLATE	70358-06612-042	1615-01-074-5153	\$4706

- d. TB/MWO's to be applied prior to or concurrently with this inspection. N/A.
- e. Publications which require change as a result of this inspection. N/A.

# 13. References. TM 1-1520-237-23, Avim/Avum Maintenance Manual dated, 15 August 1994

# 14. Recording and Reporting Requirements.

- a. Reporting compliance suspense date (aircraft). Upon entering requirements of this TB on DA form 2408-13-1 on all subject MDS aircraft, forward a priority message, data fax or E-mail to commander, ATCOM, ATTN: AMSAT-R-X (SOF COMPLIANCE OFFICER), per AR 95-3. Data fax number is DSN 693-2064 or commercial 314-263-2064. E-Mail address is "amstrxs @EMH4.STL.ARMY.MIL". The report will cite this TB number, date of entry in DA Form 2408-13-1, the aircraft mission design series and serial numbers of aircraft in numerical order.
- b. Task/Inspection Reporting suspense (Aircraft). The following information is required, within 10 hours/14 days of inspection, if a suspect tail rotor inboard retention plate is found: complete unit address, point contact with telephone and fax number, aircraft tail number, the suspect tail rotor inboard retention plate was installed, tail rotor inboard retention plate part number, tail rotor inboard retention plate serial number and time since new on tail rotor inboard retention plate. This information can be mailed to: Commander, Utility Helicopters PMO, SFAE-AV-BH-L, ATTN: JOE HOOVER, 4300 Goodfellow Boulevard, St Louis, MO 63120-1798 or faxed to JOE HOOVER, DSN 693-1898, or commercial (314) 263-1898, or E-Mailed to Hoover @PE03.STL.ARMY.MIL.
  - c. Reporting Compliance suspense Date (spares) within 5 days.
- d. Task/Inspection reporting suspense date (spares). Upon completion of the inspection depot commanders and others holding stock shall forward a priority message report of results of this inspection to Commander, Utility Helicopters PMO SFAE-AV-BH-L, ATTN: JOE HOOVER, 4300 Goodfellow Boulevard, St Louis, MO 63120-1798 or faxed to JOE HOOVER, DSN 693-1898, or commercial (314) 263-1898, or E-Mailed to Hoover @PE03.STL.ARMY.MIL. NLT 5 days after receipt of this TB. The report shall include gearbox part number, gearbox,, serial number tail rotor inboard retention plate part number, tail rotor inboard retention plate.
  - e. The following forms are applicable and are to be completed in accordance with DA PAM 738-751, 15 June 92:
    - (1) DA Form 2408-5-1, Equipment Modification Record (Tail Rotor Gearbox Assembly).
    - (2) DA Form 2408-13, Aircraft Status Information Record.
    - (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
    - (4) DA Form 2408-15, Historical Record For Aircraft.
    - (5) DA Form 2408-16, Aircraft Component Historical Record.
- (6) DA Form 2410, Component Removal and Repair/Overhaul Record. (If tail rotor inboard retention plate is removed).

#### 15. Weight and Balance. N/A

## 16. Points of Contact.

- a. Technical point of contact for this TB is Mr. Curtis Stevens, AMSAT-R-ECU, DSN 693-0435 or commercial 314-263-0435.
- b. Logistical point of contact for this TB is Mr. Joe Hoover, SFAE-AV-BH-L, DSN 693-0484 or commercial 314 263-0484.
- c. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAT-I-MDM, DSN 490-2318 or commercial 314 260-2318.
- d. Safety point of contact for this TB is Mr. Brad Meyer, AMSAT-R-X, DSN 693-2258 or commercial 314 263-2258/2085.
- e. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact CW5 Jay Nance/Mr. Ron Van Rees, AMSAT-I-IAF, DSN 693-3826/3659 or commercial 314 263-3826/3659.
- f. Wholesale material depot storage point of contact for this TB is Mr. Larry Bruce, AMSAT-I-SDP, DSN 693-5629 OR COMMERCIAL 314-263-5629/2372.
- g. After hours contact ATCOM Command Operations Center (COC), DSN 693-2066/7 or commercial 3142 63-2066/7.
- 17. Reporting of Errors and Recommending Improvements. You can help improve this TB. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commander, US Army Aviation and Troop Command, ATTN: AMSAT-I-MP, 4300 Goodfellow Blvd., St Louis, MO 63120-1798. A reply will be furnished to you. You may also submit your recommended changes by E-mail directly to <daf2028@st-louis-emh7.army.mil.>. A reply will be furnished directly to you.

By Order of the Secretary of the Army:

Official:

WYVONNE M. HARRISON Adm inistrative Assistant to the Secretary of the Arm y 00978 DENNIS J. REIMER General, United States Ann y Chief of Staff

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