

URGENT

*TB 1-1520-244-20-55

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

INITIAL AND RECURRING INSPECTION OF TAILBOOM VERTICAL FIN SKIN PANEL AND SPAR CAP ASSEMBLY, ALL AH-1 SERIES AIRCRAFT

Headquarters, Department of the Army, Washington, D. C.
10 December 2001

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NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

1. Priority Classification. URGENT.

NOTE

IAW AR 95-1, paragraph 6-6.a./6-14.a., MACOM commanders may authorize temporary exception from ASAM message requirements. Exception may only occur when combat operations or matter of life or death in civil disasters or other emergencies are so urgent that they override the consequence of continued aircraft operation.

a. Aircraft in Use. Upon receipt of this TB, make the following entry on the DA Form 2408-13-1. Enter a **RED HORIZONTAL DASH //--//** status symbol with the following statement "Inspect Tailboom Vertical Skin Panel and Spar Cap Assembly IAW AH-1-01-ASAM-02 (TB 1-1520-244-20-54) within 10 flight hours, but NLT 30 September 2001." The **RED HORIZONTAL DASH //--//** may be cleared when the inspection IAW paragraph 8, and the correction procedures IAW paragraph 9 are completed. Commanders who are unable to comply with the requirements of this message/TB within the time frame will cause the status symbol to be upgraded to a **RED //X//**. If the inspection and requirements of AH-1-01-ASAM-02 (TB 1-1520-244-20-54) have been completed and reports submitted, no further action required.

b. Aircraft in Depot Maintenance.

(1) **Aircraft at Contractor Facility.** Not applicable.

*This TB supersedes USAAMCOM Aviation Safety Action Message AH-1-01-ASAM-03 201413Z SEP 01.

(2) **Aircraft in AVUM, AVIM, or Depot.** Commanders and Facility Managers will not issue aircraft until they are in compliance with this message/TB.

c. Aircraft in Transit.

(1) **Surface/Air Shipment.** Prior to first flight.

(2) **Ferry Status.** Inspect at final destination.

d. Maintenance Trainers (Category A and B). N/A.

e. Component/Parts in Stock at All Levels (Depot and Others) Including War Reserves. N/A.

(1) **Wholesale Stock.** N/A.

(2) **Retail Stock.** N/A.

f. Components/Parts in Work. (Depot Level and Others) N/A.

2. Task/Inspection Suspense Date. Complete the inspection IAW paragraph 8.a. within 10 flight hours but NLT 30 September 2001. If the inspection and requirements of AH-1-01-ASAM-02 (TB 1-1520-244-20-54) have been completed and reports submitted, no further action is required.

3. TAMMS Reporting Compliance Suspense Date. Report compliance IAW paragraph 14.a.(1) NLT 28 September 2001. If the inspection and requirements of AH-1-01-ASAM-02 (TB 1-1520-244-20-54) have been completed and reports submitted, no further action is required.

4. Summary of the Problem.

a. AH-1-01-ASAM-02 required the removal of the Tail Rotor Blades and 90 Degree Gearbox to conduct the inspection for cracks in the Spar Cap Assembly. Units in the field have requested that the use of a Video Imaging Borescope Device be used to conduct the inspection in lieu of removing the Tail Rotor Blades and 90 Degree Gearbox, if the equipment is available.

b. Manpower/Downtime and Funding Impacts. See paragraph 12.

c. The Purpose of this TB is to permit the use of Video Imaging Devices/Borescopes to conduct the inspection of the Spar Cap Assembly.

5. End Items to be inspected. All AH-1 series aircraft.

6. Assembly Components to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Tailboom	209-033-800-109	1560-01-076-1540
	1690-230-502	1560-01-316-5711

7. Parts to be Inspected.

NOMENCLATURE	PART NUMBER
Cap Spar	209-031-815-47
Panel Assembly, LH	209-031-890-7

8. Inspection Procedures.

a. Within 10 flight hours: Gain access to Vertical Fin Gap Spar Assembly (TM 55-1520-236-23P-1, Figure 49, Item 31) by removing Tail Rotor Blades (Figure 68), Tail Rotor Hub (Figure 69), Tail Cover Assembly and the 90 Degree Gearbox (Figure 90).

NOTE

The crack occurs in the Spar Cap at the lower end just above where the Spar Cap meets the Tail Rotor Gearbox support fitting. The Tail Rotor Gearbox fitting is Figure 49, item # 72.

NOTE

A Video Imaging Device/Boreoscope may be used to perform the inspection of the Spar Cap Assembly (paragraph 8.a.(1)). When a Video Imaging Device is used, the Tail Rotor Blades, Tail Rotor Hub and the 90 Degree Gearbox do not have to be removed. Removal of the Tail Cover Assembly is still required to do this inspection. If difficulty is encountered viewing the inspection area with the Boreoscope (for example: dirt, oil, film, etc.) then the full inspection shall be completed as detailed in paragraph 8.a.

(1) Using a 10X magnifying glass (and inspection light, if necessary) visually inspect the Vertical Fin Cap Spar Assembly (TM 55-1520-236-23P-1, Figure 49, Item 31) at Fuselage Station (FS) 520.67 and Waterline (WL) 118.27 for cracking. The Spar is located next to the Tail Rotor Gearbox fitting at the lower section of the Cut Out for the Tail Rotor.

(2) Using a 10X magnifying glass inspect the Left Hand Vertical Fin SKin Panel around the rivet holes located at the lower bottom corner of the Tail Rotor Gearbox Cut Out for any cracks.

(3) If no cracks are found, the **RED HORIZONTAL DASH //--//** will be cleared and compliance with AH-1-01-ASAM-02 (TB 1-1520-244-20-54) will be noted.

(4) If any crack is found in either the Vertical Fin Cap Spar Assembly or the Vertical Fin SKin Panel, change the aircraft status on the DA Form 2408-13-1 to a **RED //X//**. Proceed to paragraph 9.

NOTE

The plus or minus 10% tolerance window (not to exceed 5 hours or 30 days) reference in TM 1-1500-328-23 is not applicable for the 150 hour recurring inspection. It should be accomplished in conjunction with one of the phase inspections.

b. At next phase inspection and every 150 flight hours thereafter: Repeat the inspection in paragraph 8.a. above. The Vertical Spar Cap Assembly recurring inspection will be entered on the DA Form 2408-18 (Equipment Inspection List), ULLS-A units will use an 800 Inspection Number until the Phase Maintenance Checklist is updated.

c. Recurring Visual Inspection. Enter the following **RED DASH //--//** recurring write-up on the DA Form 2408-13-1 "Prior to each flight, visually inspect the Tailboom Left Hand Vertical Fin Skin Panel for cracks." Inspect the Tailboom Left Hand Vertical Fin Skin Panel for cracks appearing from under the Tail Cover Assembly (TM 55-1520-236-23P-1, Figure 44, Item 64) at the lower bottom corner of the Tail Rotor Gearbox Cut Out.

9. Corrective Procedures.

a. Repair or replace Tailboom Vertical Fin Skin Panel IAW paragraph 13.c.

b. Repair or replace Cap Spar Assembly IAW paragraph 13.c. Cap Spar Assembly is A Depot replacement item.

10. Supply/Parts and Disposition.

a. Parts Required. Items cited in paragraph 12.c. may be required to replace defective items.

b. Requisitioning Instructions. Requisition replacement parts using normal supply procedures. All requisitions shall use project code (CC 57-59) "X0V" (X-RAY-ZERO-VICTOR).

NOTE

Project Code "X0V" is required to track and establish a data base of stock fund expenditures incurred by the field as a result of message/TB actions.

c. Bulk and Consumable Materials. N/A.

d. Disposition. Dispose of removed parts/components using normal supply procedures. All turn-in documents must include Project Code (CC 57-59) "X0V" (X-RAY-ZERO-VICTOR).

e. Disposition of Hazardous Material. N/A.

11. Special Tools, Jigs and Fixtures Required. As required.

12. Application.

a. Category of Maintenance. AVUM. Aircraft downtime will be charged to AVUM maintenance. Report aircraft Non-Mission Capable Maintenance (NMCM) while undergoing inspection and correction IAW this message/TB. Report aircraft Non-Mission Capable Supply (NMCS) while waiting for parts IAW this message/TB.

b. Estimated Time Required.

- (1) Time required to conduct the inspections:
 - (a) Total of 12 man-hours using 3 persons.
 - (b) Total of 4 hours downtime for one end item.
- (2) Time required for repair/replacement:
 - (a) Total of 24 man-hours using 3 persons.
 - (b) Total of 8 hour downtime for one end item.

c. Estimated Cost Impact to the Field.

NOMENCLATURE	P/N	NSN	QTY.	COST EA.
Tailboom	1690-230-502	1560-01-316-5711	1	\$44,361.15

Total cost per aircraft = \$44,361.15.

d. TB/MWOs to be Applied Prior to or Concurrently with this Inspection. N/A.

e. Publications which Require Change as a Result of this Inspection. TM 55-1520-244-PMD and TM 55-1520-244-PM shall be changed to reflect this message/TB. A copy of this message/TB shall be inserted in appropriate TM as authority to implement the change until the printed change is received.

13. References.

a. DA PAM 738-751, dated 15 Mar 99.

- b. TM 55-1520-236-23P-1.
- c. TM 55-1520-236-23-1.
- d. TM 55-1520-244-PM.
- e. TM 55-1520-244-PMD.

14. Recording and Reporting Requirements.

a. Reporting Compliance Suspense Date (Aircraft).

(1) Upon entering requirements of this message/TB on DA Form 2408-13-1 for all affected aircraft, Commanders will forward a PRIORITY message, datafax, or email to CDR, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898-5000, IAW AR 95-1, NLT date specified in paragraph 3. Datafax number is DSN 897-2111 or (256) 313-2111. Email address is: "safeadm@redstone.army.mil". The report will cite this message and TB number, date or entry in DA Form 2408-13-1, the aircraft mission design series and serial numbers of aircraft in numerical order.

(2) Task/Inspection Reporting Suspense Date (Aircraft). N/A.

b. Wholesale Spare Parts/Assemblies. N/A.

c. Retail Spare Parts/Assemblies. N/A.

d. The Following Forms are Applicable and are to be Completed in Accordance with DA Pamphlet 738-751, dated 15 March 1999:

NOTE

Unit Level Logistics System-Aviation (ULLS-A) users will use applicable electronic "-E" forms.

(1) DA Form 2408-13, Aircraft Status Information Record.

(2) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.

(3) DA Form 2408-15, Historical Record for Aircraft.

(4) DA Form 2408-18, Equipment Inspection List.

(5) DD Form 1577-2/DD Form 1577-3, Unserviceable (Reparable) Tag/Label - Materiel (Color Green). Annotate remarks block with "Unserviceable IAW AH-1-01-ASAM-02 (TB 1-1520-244-20-54)."

15. Weight and Balance. N/A.

16. Points of Contact:

a. Technical point of contact for this TB is Denise Bouchard, AMSAM-RD-AE-I-D-O, DSN 645-9736 or Commercial (256) 955-9736, Datafax is DSN 645-9536 or Commercial (256) 955-9536. E-mail is <denise.bouchard@redstone.army.mil>.

b. Logistical point of contact for this TB is Mr. Leonard Monk, AMSAM-DSA-AS-ASH-L, DSN 645-7605 or Commercial (256) 955-7605. Datafax is DSN 645-7125 or Commercial 955-7125. E-mail is <leonard.monk@redstone.army.mil>.

c. Wholesale Materiel point of contact (Spares) is Mr. David M. Giratos, AMSAM-MMC-AV-SOA, DSN 897-1381 or Commercial (256) 313-1381. Datafax is DSN 788-6758 or Commercial 842-6758. E-mail is <david.giratos@redstone.army.mil>.

d. Forms and Records point of contact for this TB is: Ms. Ann Waldeck, AMSAM-MMC-MA-NM, DSN 746-5564 or Commercial (256) 876-5564. Datafax is DSN 746-4904 or (256) 876-4904. E-mail is <ann.waldeck@redstone.army.mil>.

e. Safety points of contact for this TB are:

(1) Primary – Mr. Frank Rosebery (SAIC), AMSAM-SF-A, DSN 788-8631 or Commercial (256) 842-8631. Datafax is DSN 897-2111 or Commercial (256) 313-2111. E-mail is <frank.rosebery@redstone.army.mil>.

(2) Alternate – Mr. Howard Chilton, AMSAM-SF-A, DSN 897-2068 or Commercial (256) 313-2068. Datafax is DSN 897-2111 or Commercial (256) 313-2111. E-mail is <howard.chilton@redstone.army.mil>.

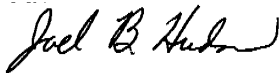
f. Foreign Military Sales recipients requiring clarification of action advised by this TB should contact: Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-6856 or Commercial (256) 313-6856. Datafax is DSN 897-6630 or Commercial (256) 313-6630. E-mail is <ronnie.sammons@redstone.army.mil>. Huntsville, AL, is GMT minus 5 hours.

g. After hours contact the AMCOM Command Operations Center (COC) DSN 897-2066/2067 or Commercial (256) 313-2066/2067.

17. Reporting of Errors and Recommending Improvements. You can 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 Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, Alabama 35898-5230. A reply will be furnished to you. You may also send in your comments electronically to our E-mail address at <ma-np@redstone.army.mil>, or by datafax at DSN 788-6546 or commercial (256) 842-6546. Instructions for sending a DA Form 2028 by E-mail may be found at the back of most Technical Manuals.

By Order of the Secretary of the Army:

Official: _____



JOEL B. HUDSON

*Administrative Assistant to the
Secretary of the Army*

0133703

ERIC K. SHINSEKI
*General, United States Army
Chief of Staff*

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