URGENT

TB 1–1520–238–30–18

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

AH–64A/D AIRCRAFT DESERT OPERATIONS SPECIAL INSPECTION, CLEANING REQUIREMENT AND AUTOMATIC IDENTIFICATION TECHNOLOGY (AIT) INSTALLATIONS

Headquarters, Department of the Army, Washington, D. C.
25 SEP 2003

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THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.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 **red dash** The **red dash** may be cleared when the inspection of paragraph 7 and the Correction Procedures in paragraph 9 are complete. The affected aircraft shall be scheduled into maintenance at the earliest possible time, to complete this task: but no later than 18 months from the date of redeployment.

b. Aircraft in Depot Maintenance. Aircraft will not be issued until compliance with this TB has been completed, if aircraft was deployed to desert operational area.

c. Aircraft Undergoing Maintenance. Same as paragraph 1a.

d. Aircraft in Transit.

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

(2) Ferry Status. Inspect at final destination.

e. Maintenance Trainers (Category A, B). Not applicable.

f. Component/Parts in Stock Including War Reserves at All Levels (Depot and Others). Same as paragraph 1a if used in desert operational area.

2. Task/Inspection Suspense Date. Within 18 months from date of redeployment.

3. Reporting Compliance Suspense Date. Within 18 months from the date of redeployment.

4. Summary of the Problem.

a. Summary. It has been discovered on inspection, that aircraft returning from Southwest Asia (SWA) have excessive deposits of salt laden sand in all exposed areas of the aircraft. These areas include the areas under fairings, access panels and the tailboom area. Caked sand was also found layered in all wire harnesses. Some amount was also discovered in flight control bearings, under cockpit floors and all available voids including main and tail rotor heads.

b. Purpose.

(1) To provide an expeditious inspecting and cleaning requirement to remove salt/sand laden and other corrosive contaminates from aircraft involved in desert operations

(2) To provide the instructions and requirement to install Automatic Identification Technology (AIT) on selected aircraft components

(a) The Aviation Maintenance Automatic Tracking System (AMATS) uses Contact Memory Buttons (CMB's) as the AIT medium for automatic completion of required historical forms and past life history of AH–64 selected aircraft components

(b) Detailed installation and initiation instructions are contained in AMATS–TM13–001

5. End Items to be inspected.

a. All AH–64A and AH–64D aircraft redeployed from Southwest Asia.

b. Maintenance trainers (Category A and B). Not applicable.

6. Assembly Components to be Inspected.

a. All flight control bearings.

b. All wire harnesses including those in void and exposed areas.

c. Mating surfaces of stringers, formers, and aircraft skin for sand intrusion.

7. Inspection Procedures.

NOTE

Identification of components replaced on aircraft since their return from SWA will decrease aircraft downtime and expedite completion of requirements established by this TB, inspection of these components is not required.

Do not replace component, assemblies and parts until aircraft has been cleaned and washed.

Identify previously repaired battle damage, ensure repairs are IAW appropriate technical manuals. Inspect all areas for possible undetected battle damage. If previously undetected battle damage is located, attempt to follow all visible projectile damage pathways to ensure all repairs are completed.

a. Clean aircraft IAW TB 1–1500–200–20–31.

NOTE

This is a secure website and password will be required for access.

b. Conduct phase inspection (DP listed items), IAW the Desert Phase checklist: see Logistic POC listed in para. 16c. for AH–64A and AH–64D checklists. Additional items and information are provided at reference publications at HTTP://WWW.Apache.Redstone.Army.Mil.

8. Correction Procedures.

WARNING

Solvents and cleaning solutions are generally toxic and many (toluene benzene, xyiene, methyl ethyl ketone, percholorethylene, naptha, trichloroethane) are highly flammable. Work in well ventilated area away from open flame. Avoid prolonged contact with skin. Wear protective clothing and goggles. Wash thoroughly after using. Solvent splash point must not be less than 100°F.

NOTE

The inspection, clean up, and repair will be accomplished in accordance with requirements in TM 1–1520–238–23 and TM 1–1520–Longbow/Apache. The Desert Phase (DP) will be completed. Next phase due after completion will be phase No. 1.

NOTE

Engines with an Engine Torque Factor (ETF) of 0.93 and above do not require disassembly. Perform borescope inspection and 500 hour inspection IAW TM 1–2840–248–23 to confirm engine condition.

NOTE

The ETF must be completed after redeploying to home station and within 30 days of induction into RESET (DP Phase)

NOTE

If unable to determine ETF due to non–flyability of aircraft, engines will be removed from aircraft and sent directly to a supporting AVIM or support unit for tear down analysis, cleaning, and 500 hour inspection.

a. Refer to TM 1–1500–328–23 for information concerning handling of TBO components (paragraph 4–5).

b. Disconnect and inspect all flight control rod end bearings per Desert Phase (DP) checklists to this TB. Inspect components for sand build up, wear limitations, corrosion (TM 1–1500–344–23), obvious discrepancies. Pay particular attention to O–ring seal areas (TM 1–1520–238–23 and TM 1–1520–Longbow/Apache). Spherical bearings should be rotated and checked for roughness and sand intrusion. Bearings may be flushed using low pressure water.

c. Inspect wire harnesses per appropriate Desert Phase (DP) attachment. If sand or corrosion is evident, perform procedures listed below:

(1) Cut tie strings/wraps and loosen clamps on all wire harnesses.

(2) Clean contaminants from wire harness using low pressure air. (Less than 50 PSI)

NOTE

Ensure all wire harness connectors and cannon plugs are clean. Dry and coat with Corrosion Preventative Compound prior to reconnecting. (i.e. MIL–C–81309 Type III)

(3) Replace tie strings/wraps and tighten clamps.

CAUTION

Do not use high pressure or high volume water for cleaning procedures.

d. Oil and Hydraulic Samples.

NOTE

Hot oil samples should be taken so results can be acquired prior to inducting the aircraft into Desert Phase inspection.

(1) Transmission: If transmission oil sample shows particulate contamination, drain, flush and refill. Repeat hot oil sample. If second sample is contaminated, replace transmission.

(2) Nose Gearbox: Same as 9d(1).

(3) Hydraulic:

(a) Self–filtrate AGPU hydraulic system IAW TM 55–1730–229–12. Flush aircraft hydraulic systems (primary and utility) IAW para 9.b. of TB 1–1520–238–20–116. Paragraph 9.b. (22) will be performed for 15 minutes of cycling controls

NOTE

AGPU pressure must be applied to Primary and Utility systems. In order to accomplish this, four (4) ten (10) foot AGPU hoses are required.

(b) After flushing aircraft and cycling controls (15 min.), remove and replace Primary and Utility Manifold Filters. Disconnect the AGPU primary and return hoses from aircraft. Before disconnecting AGPU utility hoses, service Utility Hydraulic Manifold Reservoir, if required. This can be accomplished by operating the AGPU hydraulic system at 1500 psi with the AGPU return by–pass valve set to “Off”.

NOTE

To prevent damage (sticking piston) to primary manifold, do not service the primary manifold with the AGPU.

(c) As soon as the Utility Reservoir is correctly serviced, the AGPU pressure must be reduced to 500 psi and the AGPU hydraulic “output” switch turned to off. Shut off and disconnect AGPU. Service the Primary Hydraulic Manifold either manually or with a Reservoir Servicing Unit, if available.

(d) Obtain hydraulic samples from Primary and Utility systems IAW TB 1–1520–238–20–116. Submit samples to the following address at CCAD for analysis:

Corpus Christi Army Depot

Chemical Material Process Division (ATTN: Elaine Lambert)

308 Crecy Street, BLDG 8, Stop 27

AMSAM–CC–QA–C–27

Corpus Christi, Texas 78419–5060

(e) If hydraulic sample is contaminated, contact Technical POC in Para 16.b.

(4) Intermediate and tail rotor gearbox:

(a) Remove filler and breather port, obtain sample from both locations. Submit to local AOAP lab for particulate analysis. If sample shows excessive particulate contamination, replace gearbox.

(5) Touch–up and paint as necessary per TM 55–1500–345–23.

9. Installation of Automatic Identification Technology (AIT), i.e., contact Memory Buttons (CMB's)

a. The Multi Purpose Aviation Integration Lab (MPAIL) will provide the on–site training and equipment for installation of CMB's prior to execution of this Technical Bulletin (TB).

b. DA FORM 2410 Components.

(1) Install CMB's on those selected DA FORM 2410 components identified by AMATS–TM13–001.

c. RECAP Components:

(1) Install a CMB on those components marked "RECAP" in Block 5 of DA FORM 2408–5–1. Install CMB IAW AMATS–TM13–001.

d. Future RECAP Components:

(1) Install a CMB on those future Recap components as identified by AMATS–TM13–001.

e. Disposition of Hazardous Material. N/A.

10. Supply/Parts and Disposition

a. Requisitioning Instructions. As instructed.

b. Bulk and Consumable Materials. As required.

11. Special Tools, Jigs and Fixtures Required. N/A.

12. Application.

a. Category of Maintenance. AVUM/AVIM.

b. Time Required.

(1) Total of 5 persons using 1 person to inspect.

(2) Estimated manhours to accomplish this task is 3000 hours.

c. TB/MWO/ECP to be applied prior to or concurrently with this Technical Bulletin: As required.

d. Publications which require change as a result of this inspection/technical bulletin: Not applicable.

e. Deferred maintenance to be accomplished concurrently with this inspection: As required.

13. References.

a. TM 1–1520–238–23, Aviation Unit and Intermediate Maintenance Manual, Army Model AH–64A Helicopter.

b. TM 1–1520–238–23P, Aviation Unit and Intermediate Maintenance Repair Parts and Special Tools list, Army Model AH–64A Helicopter.

c. TM 1–1500–204–23, General Aircraft Maintenance Manual.

d. TB 1–1500–200–20–31, Desert Storm Aircraft Redeployment Cleaning Requirement.

e. TM 55–1500–345–23, Painting and Marking of Army Aircraft.

f. TM 1–1500–328–23, Aeronautical Equipment Maintenance Management Policies and Procedure.

g. TM 55–1500–323–24, Installation Practices, Aircraft Electric and Electronic Wiring.

h. TM 1–1500–344–23, Aircraft Weapon Systems Cleaning and Corrosion Control.

i. TM 1–1520–Longbow/Apache, Interactive Electronic Technical Manual (IETM) for Longbow/ Apache.

j. TM 55–1500–342–23, Army Aviation Maintenance and Engineering Manual for Weight and Balance.

k. AMATS–TM13–001, Technical Manual. Operator's, Aviation Unit, and Intermediate Maintenance Manual. Aviation Maintenance Automated Tracking System (AMATS) Version 4.0.

l. DA PAM 738–751, The Army Maintenance Management System (Aviation) TAMMS–A.

14. Recording and Reporting Requirements.

a. Reporting compliance suspense date (aircraft). Upon entering requirements of this Technical Bulletin on DA Form 2408–13, forward compliance message. The report will cite this Technical Bulletin number, date of entry in DA Form 2408–13, aircraft mission design series and serial numbers of aircraft in numerical order.

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

c. The following forms are applicable and are to be completed in accordance with DA PAM 738–751, DTD 15 Mar 1999.

(1) DA Form 2408–5, Equipment Modification Record (Aircraft).

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

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

(4) DA Form 2410, Normal Removal, Repair, Overhaul/Rebuild and Installation.

(5) DA Form 2408–15, Aircraft Historical Record.

15. Weight and Balance. Inventory and weigh aircraft, update aircraft Weight and Balance Records IAW TM 55–1500–342–23, perform this task after maintenance action.

16. Points of Contact for this Technical Bulletin are:

a. Reset, Mr. Steve Hayes, AMSAM-DSS-R, DSN 645-0904 or commercial (256)955-0904.

b. Technical, Mr. Ken Muzzo, AMSAM-RD-AE–I–P–A, commercial (256)705-9846.

c. Logistical Points of Contact,

(1) Primary– Mr. Wayne Fussleman, SFAE-AV-AAH-LF, DSN 897-4043 or commercial (256) 313-4043.

(2) Alternate– Mr. Chuck Wright, SFAE-AV-AAH-LI, DSN 897-4087 or commercial (256) 313-4087.

d. Forms and records, Ann Waldeck, AMSAM-MMC-RE–FF, DSN 746-5546 or commercial (256)876-5564.

e. After hours contact AMCOM Command Operations Center (COC). DSN 897-2066/7 or commercial (256)313-2066/7.

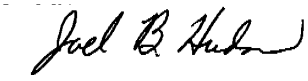
f. Parts Identification, Mr. Dennis Urhahn, AMSAM–MMC–AA, DSN 897–1630 or commercial (256) 313–1630.

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, AL 35898–5000. A reply will be furnished to you. You may also provide DA Form 2028 information to AMCOM via e-mail, fax, or the World Wide Web. Our fax number is: DSN 788-6546 or Commercial 256–842–6546. Our e–mail address is: 2028@redstone.army.mil. For the World Wide Web use: https://amcom2028.redstone.army.mil.

By Order of the Secretary of the Army:

PETER J. SCHOOMAKER
General, United States Army
Chief of Staff

Official:



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
0326003

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The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" <whomever@avma27.army.mil>
To: 2028@redstone.army.mil

Subject: DA Form 2028

1. ***From:*** Joe Smith
2. *Unit:* home
3. ***Address:*** 4300 Park
4. ***City:*** Hometown
5. ***St:*** MO
6. ***Zip:*** 77777
7. ***Date Sent:*** 19–OCT–93
8. ***Pub no:*** 55–2840–229–23
9. ***Pub Title:*** TM
10. ***Publication Date:*** 04–JUL–85
11. *Change Number:* 7
12. *Submitter Rank:* MSG
13. ***Submitter FName:*** Joe
14. *Submitter MName:* T
15. ***Submitter LName:*** Smith
16. ***Submitter Phone:*** 123–123–1234
17. ***Problem:*** **1**
18. *Page:* 2
19. *Paragraph:* 3
20. *Line:* 4
21. *NSN:* 5
22. *Reference:* 6
23. *Figure:* 7
24. *Table:* 8
25. *Item:* 9
26. *Total:* 123
27. ***Text:***

This is the text for the problem below line 27.