URGENT

TB 1–1520–238–20–106

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

ONE-TIME INSPECTION FOR VERTICAL STABILIZER HARDWARE, AH–64 SERIES AIRCRAFT

Headquarters, Department of the Army, Washington, D.C.
3 March 2000

NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

1. Priority Classification. URGENT.

NOTE

IAW AR 95–1, paragraph 6–6.A, MACOM Commanders may authorize temporary exception from TB 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 consequences of continued aircraft operation.

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 horizontal dash //–//. The red horizontal dash //–// entry shall state “Inspect Vertical Stabilizer Hardware in accordance with (IAW) TB 1–1520–238–20–106” prior to next flight. The red horizontal dash //–// may be cleared when the inspection of paragraph 8 is completed. The affected aircraft shall be inspected as soon as practical but no later than (NLT) prior to next flight. Failure to comply with the requirements of this message within the timeframe will cause the status symbol to be upgraded to a red //x//.

b. Aircraft in Depot Maintenance. Same as paragraph 1.a.

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

d. Aircraft in Transit.

(1) Surface/Air Shipment. Same as paragraph 1.a.

(2) Ferry Status.

(a) Same as paragraph 1a.

(b) Those aircraft that have a DD 250 and are at Boeing will be inspected prior to ferry to final destination.

e. Maintenance Trainers (Category A and B). Same as paragraph1.a.

This TB supersedes USAATCOM Safety of Flight Message 270122Z Feb 00 (AH–64–00–06).

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

2. **Task/Inspection Suspense Date.** Prior to next flight.

3. **Reporting Compliance Suspense Date**. No later than 17 March 2000, per paragraph 14.a of this TB.

4. **Summary of the Problem**.

a. A number of AH–64A and AH–64D aircraft which have had tail boom improvement ECP 1315 (RSN 97A001) applied have been found to have Vertical Stabilizer Attachment Bolts shanking at the grip (non–threaded portion of bolt). The asymmetrical stresses induced into the bolt, added to flight loads could cause bolt to fail.

b. For manpower/downtime and funding impacts, see paragraph 12.

c. The purpose of this TB is to ensure that the Vertical Stabilizer attachment hardware is installed correctly.

5. **End Items to be inspected**. All AH–64 series aircraft.

6. **Assembly Components to be Inspected**.

NOMENCLATURE	PART NUMBER
Vertical Stabilizer	7–31122600

7. **Parts to be Inspected**.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Bolt Shear	HS 5798-9-24	5306–01–465–8474
Barrel Nut	HS 5813–9	5310–01–463–1730
Retainer	NAS 578-9B	5340–00–853–9862
Washer, Recessed	MS20002C9	5310–00–596–1712

8. **Inspection Procedures**.

NOTE

ECP 1315 has been applied to all AH–64D Longbow aircraft during the remanufacturing process, therefore any reference to ECP1315 will not be annotated in the Historical Records of the AH–64D (i.e. all AH–64D's are affected).

a. Prior to next flight, inspect records to determine wether ECP 1315 (RSN97A001) has been applied. If records search is inconclusive, evidence that ECP1315 has been applied is tail boom slot closure and presence of elastomeric stabilator mounts. If the ECP has been applied, inspect bolts attaching Vertical Stabilizer to tailboom for proper installation and torque. If ECP 1315 (RSN97A001) has not been applied, the inspection is complete.

b. If the barrel nut is visible through the retainer, check to see that the end of the bolt can be seen by looking for the chamfer or a partial thread.

NOTE

Barrel Nut run-on torque shall be 24 inch pounds minimum.

c. If the end of bolt can be seen, retorque to assure bolt is properly torqued. Retorque only one bolt at a time. Torque bolts to 75 inch pounds. Then torque each bolt in increments of 350 in pounds to 1350–1420 inch pounds.

d. If end of bolt can be seen and torque is correct, then inspection is complete.

CAUTION

Remove and replace only one bolt at a time.

e. If end of bolt cannot be seen or barrel nut retainer obstructs the inspection, remove bolt, barrel nut and retainer. Inspect bolt for damage to shank and thread. Inspect barrel nut for damaged threads. None allowed.

9. **Correction Procedures.**

CAUTION

Remove and replace only on bolt at a time.

a. If damage is found, replace barrel nut and bolt. If new bolt and/or washer is being installed, coat shank, threads and under bolt head and the waher with anti seize compound, MIL–T–83483.

b. Install barrel nut without retainer.

c. Install bolt until bolt head contacts vertical stabilizer mounting lug.

d. Verify that a minimum of one and one half complete threads are protruding through the barrel nut and that the end of the bolt is visible.

e. If end of bolt cannot be seen or cannot be determined by seeing the chamfer or partial thread, add an additional washer under the bolt head.

f. Remove bolt and barrel nut. Reinstall retainer, barrel nut, and bolt. Torque bolts to 75 inch pounds. Then torque each bolt in increments of 350 inch pounds to 1350–1420 inch pounds.

10. **Supply/Parts and Disposition**.

a. Parts Required. Items cited in paragraph 6 and 7 may be required to replace defective items.

b. Requisition Instructions. For requisitioning instructions, contact the logistical point of contact at the Apache War Room listed in paragraph 16B

c. Bulk and Consumable Materials.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Antiseize Compound	MIL–T–83483	8030–00–243–3285

d. Disposition. Dispose of removed parts/components using normal supply procedures.

e. Disposition of Hazardous Material. IAW Environmental Protection Agency directives as implemented by your servicing environmental coordinator (AR 200–1).

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

12. **Application**.

a. Category of Maintenance. AVUM.

b. Time Required.

(1) Total of one man-hours using one person.

(2) Total of one hours downtime for one end item.

c. Estimated Cost Impact of Stock Fund Items to the Field. N/A.

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. N/A.

13. **References**. N/A.

14. **Recording and Reporting Requirements**.

a. Upon entering requirements of this TB on DA Form 2408-13-1 on all subject MDS aircraft, forward a priority message by Datafax or E-Mail to Commander, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898–5000, IAW AR 95-1. Datafax number is DSN 897-2111 or commercial (256) 313-2111. E-Mail address is "SAFEADMS@REDSTONE.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 date (aircraft)–Upon completion of inspection, units will forward a priority message to: Apache War Room IAW paragraph 16.b. The report will cite this message number, date of inspection, aircraft serial number, aircraft and component hours and results of the inspection. Inspection and reports will be completed no later than 1800 hours Zulu 2 March 2000.

c. Reporting Compliance Suspense Date (Spares)– N/A.

d. Task/Inspection Reporting Suspense Date (Spares)–

(1) Materiel in Wholesale Depot Storage– N/A.

(2) Materiel in Retail Storage– N/A.

e. The following forms are applicable and are to be completed in accordance with DA PAM 738-751,15 Mar 99:

NOTE

ULLS–A users will use applicable "E" forms.

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

(2) DA Form 2408-5–1, Equipment Modification Record (Component).

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

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

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

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

16. **Points of Contact**.

a. Technical point of contact for this TB is Mr. Ken Muzzo, AMSAM-RD–AE–I–P–A, DSN 897-4812 or commercial (256) 313-4812. Datafax is DSN 897–4923 or (256) 313–4923 e–mail is Kenneth.Muzzo@redstone.army.mil.

b. Logistical point of contact for this TB is the Apache War Room, DSN 746-4343 or commercial (256) 876-4791. e–mail is WR–ASD@redstone.army.mil.

c. Forms and records point of contact for this TB is Ms. Ann Waldeck, AMSAM-MMC-RE–FF, DSN 746-5564 or commercial (256) 876-5564, Datafax is DSN 746–4904 or commercial (256) 876–4904, e–mail is waldeck–ab@redstone.army.mil.

d. Safety point of contact for this TB is Mr. Howard Chilton. AMSAM-R-X, DSN 897-2068 or commercial (256) 313-2068, Datafax is DSN 897–2111 or commercial (256) 313–2111, e–mail is chilton–hl@redstone.army.mil.

e. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact CW5 Joseph L. Wittstrom, Security Assistance Management, AMSAM-SA, DSN 897-0681 or commercial (256) 313-0681, e–mail is wittstrom–jl@redstone.army.mil. or Mr. Ronnie W. Sammons, AMSAM–SA–CS–NF, DSN 897–0869 or commercial (256) 313–0869, Datafax is DSN 897–0411 or commercial (256) 313–0411, e–mail is sammons–rw@redstone.army.mil. Huntsville, Al is GMT minus 6 hours.

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

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–LS–LP, Redstone Arsenal, AL 35898–5230. You may also submit your recommended changes by e–mail directly to ls–lp@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual. A reply will be furnished directly to you.

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: <mpmt%avma28@st–louis–emh7.army.mil>

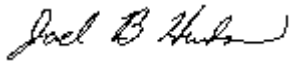
Subject: DA Form 2028

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.

By Order of the Secretary of the Army:

Official:



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

0006002

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

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To be distributed in accordance with Initial Distribution Number (IDN) 313893, requirements for TB 1-1520-238-20-106.

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SOMETHING WRONG WITH PUBLICATION

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DATE SENT

PUBLICATION NUMBER	PUBLICATION DATE	PUBLICATION TITLE

BE EXACT PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.

PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER	SIGN HERE

TEAR ALONG PERFORATED LINE

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PREVIOUS EDITIONS ARE OBSOLETE.

P.S.--IF YOUR OUTFIT WANTS TO KNOW ABOUT YOUR RECOMMENDATION MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS.

THE METRIC SYSTEM AND EQUIVALENTS

'NEAR MEASURE

. Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
1 Kilometer = 1000 Meters = 0.621 Miles

'VEIGHTS

Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
1 Kilogram = 1000 Grams = 2.2 lb.
1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches
1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet
1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

1 Cu. Centimeter = 1000 Cu. Millimeters = 0.06 Cu. Inches
1 Cu. Meter = 1,000,000 Cu. Centimeters = 35.31 Cu. Feet

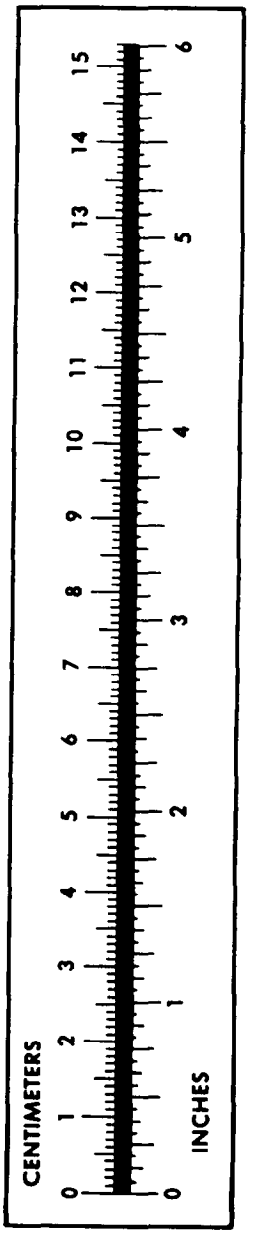
TEMPERATURE

5/9(°F - 32) = °C
212° Fahrenheit is evuivalent to 100° Celsius
90° Fahrenheit is equivalent to 32.2° Celsius
32° Fahrenheit is equivalent to 0° Celsius
9/5C° + 32 =°F

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
ıts	Liters	0.473
arts	Liters	0.946
allons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
ers	Gallons	0.264
ms	Ounces	0.035
ograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
lometers per Liter	Miles per Gallon	2.354
meters per Hour	Miles per Hour	0.621



PIN: 077878-000