

URGENT

*TB 1-1520-210-20-32

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

ONE-TIME AND RECURRING INSPECTION OF TAIL
ROTOR BLADES ON ALL UH-1 H/V AIRCRAFT

Headquarters, Department of the Army, Washington, D. C.

12 August 1996

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

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THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.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 cited aircraft will be changed to a red horizontal dash. 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 the task/inspection suspense date. Failure to comply with requirements of this TB within the time frame will cause the status symbol to be upgraded to a red X.

b. Aircraft in Depot Maintenance Aircraft will not be issued until compliance with this TB has been completed.

c. Aircraft Undergoing Maintenance. Aircraft will not be released until compliance with this TB has been completed.

d. Aircraft in Transit.

(1) Surface/Air Shipment. Within 25 hours or 30 days of arrival.

(2) Ferry Status Inspect at final destination.

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

f. Component/Parts In Stock Including War Reserves at All Levels (Depot and Others). Inspect prior to installation on aircraft or induction into repair or overhaul.

2. Task/Inspection Suspense Date. Within 25 hours/30 days from receipt of superseded message or receipt of this TB, whichever is received first.

3. Reporting Compliance Suspense Date. No later than 14 August 1996 per paragraph 14.a. of this TB.

*This TB supersedes USAATCOM Aviation Safety Action Message 231414Z, JUL 96, UH-1-96-ASAM-03

4. Summary of the Problem.

a. Bell Helicopter has determined that a number of Tail Rotor Blades may have been manufactured with internal leading edge doublers fabricated from ALCLAD aluminum instead of bare aluminum material. This material meets design strength requirements, however, in bonded applications, ALCAD aluminum is not as corrosion resistant as bare aluminum. Corrosion of the leading edge doublers may be identified by peeling, flaking or bubbling paint.

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

c. The purpose of this TB is to require a one-time inspection of the Tail Rotor Blades for corrosion and to add this inspection to the current recurring special inspection in the maintenance manual.

5. End Items to be Inspected. All UH-1H/V aircraft.

6. Assembly Components to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Tail Rotor Hub and Blade Assembly	204-011-800-27	N/A

7. Parts to be Inspected.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK NUMBER
Blade, Rotary, Rudder (Tail Rotor Blade)	204-011-702-15	1615-00-472-7308

8. Inspection Procedures.

NOTE

When Installing a new or replacement blade, Inspect for corrosion per the following requirements.

- a. Thoroughly clean Tail Rotor Blades.
- b. Visually inspect the blade for paint distress such as peeling, flaking, bubbling and corrosion along bond lines at the root and tip ends of the leading edge, and the abrasion cap bond line on both sides of the blade from root to tip, 1.25 inch aft of the leading edge.
- c. If no evidence of paint distress or corrosion is found in these areas, the blade may remain in service and the inspection is complete.
- d. If paint distress or corrosion is found, continue with the corrective procedures of paragraph 9.

9. Correction Procedures.

- a. If paint distress is noted, remove paint from the affected area and inspect for corrosion deposits. If no corrosion deposits are noted, refinish the blade in accordance with TM 55-1500-345-23.
- b. If corrosion deposits are found in along the bond lines of the area identified in paragraph 8., no corrosion clean-up is authorized. The blade must be removed from service and disposed of in accordance with paragraph 10.d.

10. Supply/Parts and Disposition.

- a. Parts Required. Items 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 "XCD" per this TB.

NOTE

Project code "XCD" 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 Mutilate any part which does not meet inspection criteria in this TB
- 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. Time Required.
 - (1) Total of 1 man-hours using 1 person.
 - (2) Total of 1 hours downtime for one end item.
- c. Estimated Cost Impact of Stock Fund Items to the Field.

NOMENCLATURE	PART NUMBER	NATIONAL STOCK	NUMBER COST EA.
Blade, Rotary	204-011-702-15	1615-00-472--7308	\$1870.00

- 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 55-1520-210-23-1 shall be changed to reflect this TB. The TM change will add this inspection to paragraph 5-117.h under the existing 50 hour/30 day Tail Rotor special inspection and to the Tail Rotor Blade installation section for new blades in paragraph 5-95. A copy of this TB shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

13 References.

- a. TM 55-1520-210-23-1, dated 30 September 1987.
- b. TM 55-1500-345-23, dated 12 June 1986.

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, datafax or E-Mail to Commander, ATCOM, ATTN: AMSAT-R-X (SOF Compliance Officer), per AR 95-3. Datafax number is DSN 693-2064 or commercial (314) 263-2064. E-Mail address is <amsatrxs@st-louis-emh4.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) N/A
- c. Reporting Compliance Suspense Date (Spares) N/A
- d. Task Inspection Reporting Suspense Date (Spares) N/A
- e. The following forms are applicable and are to be completed in accordance with DA PAM 738-751, dated 15 June 92:
 - (1) DA Form 2408-5-1, Aircraft Modification Record (Component)
 - (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 (If blade replacement is required).
- (6) DA Form 2410, Component Removal and Repair/Overhaul Record (if blade replacement is required).

15. Weight and Balance. N/A.

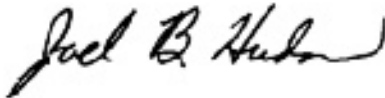
16. Points of Contact.

- a. Technical point of contact for this TB is Mr. Fred Kershaw, AMSAT-R-ECH, DSN 693-1683 or commercial (314)263-1683.
- b. Logistical point of contact for this TB is Mr. Charles Elkins, AMSAT-D-WAU, DSN 693-2004 or commercial (314)263-2004.
- 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. Lyell Myers, AMSAT-R-X, DSN 693-2438 or commercial (314)263-2438.
- e. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact Mr. Ron Van Rees, AMSAT-D-SAF, DSN 693-7844/3216 or commercial (314)263-7844/3216. Datafax is (314)263-2917.
- f. After hours contact ATCOM Command Operations Center (COC) DSN 693-2066/2067 or commercial (314)263-2066/2067.

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. You may also submit your recommended changes by E-mail directly to <mpmt%avma28@st-louisemh7.army.mil>. A reply will be furnished directly to you. Instructions for sending an electronic 2028 may be found at the back of some TMs

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RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

 <p style="font-size: 24pt; font-weight: bold; margin: 0;">SOMETHING WRONG WITH PUBLICATION</p>			
<p>FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)</p>			
<p>DATE SENT</p>			
<p>PUBLICATION NUMBER</p>		<p>PUBLICATION DATE</p>	<p>PUBLICATION TITLE</p>
<p>BE EXACT PIN-POINT WHERE IT IS</p>			
<p>PAGE NO.</p>	<p>PARA-GRAPH</p>	<p>FIGURE NO.</p>	<p>TABLE NO.</p>
<p style="font-weight: bold; font-size: 18pt;">IN THIS SPACE, TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT.</p>			
<p>PRINTED NAME, GRADE OR TITLE AND TELEPHONE NUMBER</p>			<p>SIGN HERE</p>

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigram = .035 ounce
 1 decagram = 10 grams = .35 ounce
 1 hectogram = 10 decagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

<i>To change</i>	<i>To</i>	<i>Multiply by</i>	<i>To change</i>	<i>To</i>	<i>Multiply by</i>
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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