

# URGENT

\*TB1-1520-210-20-34

## DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

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### NIGHT VISION GOGGLE OPERATIONAL AND NAVIGATIONAL/POSITION LIGHT INSPECTION FOR ALL UH-1HN AIRCRAFT

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Headquarters, Department of the Army, Washington, D. C.  
04 April 1997

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#### NOTE

THIS PUBLICATION IS EFFECTIVE UNTIL RESCINDED OR SUPERSEDED.

#### NOTE

Reference TB 1-1520-243-20-24. Aviation Safety Action Messages UH-1-97-ASAM-01 and AH-1-97-ASAM-01 erroneously stated that TB 1-1520-210-20-34 would cover the replacement of the Main Driveshaft Clamp Bolts on AH-1 and UH-1 aircraft.

#### 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 aircraft is to be restricted to daytime use only. The circled red X 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. While the aircraft is on a circled red X it may be reported as fully mission capable (FMC).

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. Prior to next flight/within 30 hours or 14 days of arrival.

(2) Ferry Status. Same as paragraph 1.a.

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

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

**2. Task/Inspection Suspense Date.** Within the next 10 flight hours/14 days from receipt of superseded message or receipt of this TB, whichever is received first.

**3. Reporting Compliance Suspense Date.** No later than 3 April 1997 per paragraph 14.a. of this TB.

\*This TB supersedes USAATCOM Aviation Safety Action Message 1315372 MAR 97, UH-1-97-ASAM-02.

#### 4. Summary of the Problem.

a. Past practices that configured UH-1H/V aircraft for night vision goggle (NVG) compatibility included various methods of reducing glare from the existing external navigation and position lights. These methods included using tape, paint or other materials to obscure all or part of the navigation and position light lenses. The latest configurations for NVG compatibility include NVG-compatible position lights in addition to the normal navigation and position lights. Even though the NVG-compatible position lights are installed, many aircraft still have the normal navigation and position lights configured with tape, paint, etc. This reduces the effectivity of these lights during normal night time operations.

b. Obscuring or reducing the light intensity of these external lights is in violation of Federal Aviation Administration (FAA) regulations for nighttime operations in civil airspace. While operating at night in civil airspace, all exterior lights on Army aircraft are required to be on and in bright mode, unless the area of operations conforms to that described by FAA exemption 3946D.

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

d. The purpose of this TB is:

(1) To require a one-time inspection of the position lights and remove any materials from the lenses which obscures normal operation of the lights. Lenses shall be replaced if the obscuring material cannot be removed.

(2) To ensure flight personnel are informed of the restrictions on NVG operations in the civil air space system and when position lighting is required.

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

6. **Assembly Components to be Inspected.** All exterior navigation and position lights.

7. **Parts to be Inspected.** N/A.

#### 8. Inspection Procedures.

a. Locate all exterior navigation and position lights.

#### NOTE

Some lenses were painted on the inside of the lens. It may be necessary to turn on the navigation/ position lights to determine if the inside of these lenses are painted.

b. Visually inspect lenses for the presence of paint, tape or other material that would obscure normal operation of the light assemblies.

c. If lenses are free of obscuring materials, no further maintenance action is required. Personnel must still be aware of the flight procedures contained in paragraph 4.d. If lenses are obscured, perform corrective procedures in accordance with paragraph 9.

#### 9. Correction Procedures.

a. Aircraft Lighting.

(1) Completely remove obscuring material from lenses. Paint can be removed using an abrasive pad (Scotch Brite). If tape was removed and tape residue remains on the lens, use a solvent to remove residue, being careful not to damage surrounding painted surfaces.

#### NOTE

Some assemblies were found to be installed with a sealant which may be hard to remove. Care should be taken in removing the lens to prevent damaging the assembly.

(2) If the interior of the lens is painted, removal of the lens is required. If the inside surface of the lens appears rough and is no longer translucent, or if the paint cannot be totally removed, replace the lens.

b. Flight Procedures.

(1) U.S. Army aircraft are required by AR 95-1 to have the position lights on bright between the hours of official sunset and sunrise. This also applies to all individual aircraft in multi-aircraft operations.

(2) Lights OUT/DIM operations may only be conducted as part of NVG training missions, and only in strict accordance with AR 95-2, paragraph 9-2. The maximum altitude above ground (AGL) for lights out operations has been increased to 500 feet AGL by FAA exemption 3946D. Also, lights out operations within 5 nautical miles of any public use airport are prohibited. All other restrictions of AR 95-2 remain unchanged.

(3) When transitioning from NVG training areas to civil airspace, including temporary ascents to altitudes above 500 AGL, aircraft positioning lights shall be set to bright unless utilizing a spotter aircraft, per AR 95-2.

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

- a. Parts Required. Items cited in paragraphs 6. and 7. may be required to replace defective items.
- b. Requisitioning Instructions. Requisition replacement parts through normal supply channels using normal supply procedures.
- c. Bulk and Consumable Materials. N/A.
- d. Disposition. Dispose of removed parts/components in accordance with normal supply procedures.
- e. Disposition of Hazardous Materials. 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. N/A.
- d. TB/MWOs to be Applied Prior to or Concurrently with this Inspection. MWO 55-1520-210-56-10, MWO 55-1520-210-50-11 or MWO 55-1520-210-50-12.
- e. Publications Which Require Change as a Result of This Inspection. The following publications shall be changed to reflect this TB. A copy of this TB shall be inserted in the appropriate TM as authority to implement the change until the printed change is received:
  - (1) TM 55-1520-210-10, dated 15 February 1988.
  - (2) TM 55-1520-210-23-2, dated 30 September 1987.

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

**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@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 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 Pamphlet 738-751, dated 15 June 92:

- (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.

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

**16. Points of Contact.**

a. Technical point of contact for this TB is Mr. Walt Demkowski, AMSAT-R-ECH, DSN 693-0428 or commercial (314) 263-0428.

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. Bob Brock, AMSAT-R-X, DSN 693-1599 or commercial (314) 263-1599.

e. Foreign Military Sales (FMS) recipients requiring clarification of action advised by this TB should contact Mr. Ron Van Rees, AMSAT-D-S, DSN 693-7844/3216 or commercial (314) 263-7844/3216. Datafax is (314) 263-2917 (St. Louis GMT minus 6 hours).

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 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 <daf2028.dmh1.stl.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.

By Order of the Secretary of the Army:

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# THE METRIC SYSTEM AND EQUIVALENTS

## WEIGHT MEASURE

1 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

## WEIGHTS

1 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

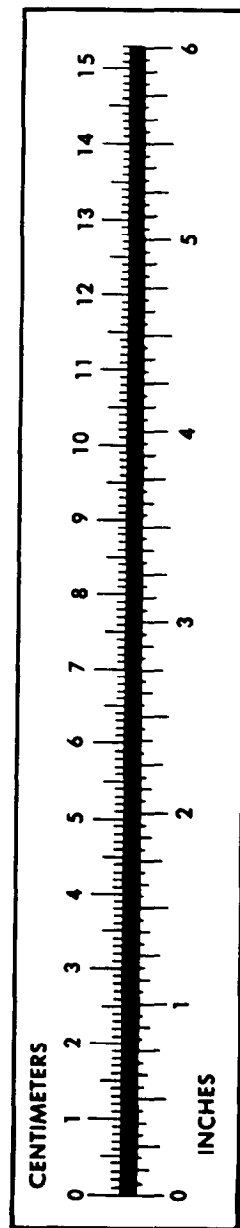
## TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$   
 212° Fahrenheit is equivalent to 100° Celsius  
 90° Fahrenheit is equivalent to 32.2° Celsius  
 32° Fahrenheit is equivalent to 0° Celsius  
 $9/5^{\circ}\text{C} + 32 = ^{\circ}\text{F}$

## 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
arts	Liters	0.473
gallons	Liters	0.946
Ounces	Liters	3.785
Pounds	Grams	28.349
Short Tons	Kilograms	0.454
Pound-Feet	Metric Tons	0.907
Pounds per Square Inch	Newton-Meters	1.356
Miles per Gallon	Kilopascals	6.895
Miles per Hour	Kilometers per Liter	0.425
	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
gallons	Gallons	0.264
ounces	Ounces	0.035
pounds	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pounds-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



**PIN: 075422-000**