

UNCLASSIFIED

MSG DTG 111200Z JUL 11

FROM COMMANDER, AMCOM, REDSTONE ARSENAL, AL //AMSAM-SFA//

SUBJECT - AVIATION SAFETY ACTION MESSAGE (ASAM), MAINTENANCE MANDATORY, ALL UH-1 SERIES AIRCRAFT, MAIN ROTOR HUB INBOARD STRAP FITTING, UH-1-11-ASAM-02

NOTE

This message is effective until rescinded or revised.

NOTE

This message is issued IAW AR 750-6 and has not been officially transmitted to units subordinate to addressees. Commanders of Army Commands (ACOM), Army National Guard (ARNG), United States Army Reserve (USAR), Army Service Component Commands (ASCC), and Direct Reporting Units (DRU) will immediately retransmit this message to all subordinate units, activities or elements affected or concerned, and immediately confirm this re-transmittal by notification to the AMCOM SOF Compliance Officer at ["safeadm@conus.army.mil"](mailto:safeadm@conus.army.mil).

NOTE

Commanders or Directors (not lower than the grade of Major General or civilian equivalent) of ACOMs, ARNG, USAR, ASCCs, and DRUs may authorize temporary exception from message requirements IAW AR 750-6, para 2-9 and 2-19. Exception may only occur when combat operations, matter of life or death in civil disasters, or other emergencies, are so urgent that they override the consequences of continued aircraft operation.

NOTE

Commanders unable to comply with the requirements of this message within the time frame specified will change the affected aircraft status symbol to a Red //X//.

NOTE

Commanders, Facility Managers, and Contractors at all levels, to include aircraft in DD 250 status, will not issue aircraft until they are in compliance with this message. This message will not apply to aircraft which are transferred to the U.S. Government via DD Form 250 after the message DTG.

NOTE

A listing of published safety messages, to include TAMMS Reports, Inspection Reports, and any Supplements/Addendums required by this message can be downloaded at: "<https://asmprd.redstone.army.mil>". This is a secure website which requires an Army Knowledge Online (AKO), "<https://www.us.army.mil>", user ID and password.

1. SUMMARY -

1.1. Background - Due to a manufacturing non-conformance, the Main Rotor (MR) Hub Inboard Strap Fittings may fracture. The cracking is believed to have occurred during the quenching operation and was not detected during manufacturing inspections. Additionally, the Fittings were Shot-Peened, and the resultant material rollover at the edges of the parts may not have been properly removed during manufacture and could lead to the formation of fatigue cracks. Also, the Strap Fittings may have been manufactured with an incorrect thread depth and may not mate properly with the Worm Gear for Torsion Tension (TT) Strap adjustment.

1.2. Message Purpose -

1.2.1. Require a one-time visual inspection of all Inboard Strap Fittings.

1.2.2. Perform a Magnetic Particle Inspection (MPI) of suspect Inboard Strap Fittings.

2. END ITEMS AFFECTED - All UH-1 series aircraft.

3. ASSEMBLIES/COMPONENTS/PARTS AFFECTED -

3.1. Suspect Assemblies/Components/Parts -

Nomenclature	PN	NSN
Fitting Assembly, Retention Strap	204-012-102-5	1615-00-848-4888

3.2. Additional Assemblies/Components/Parts Affected -

Nomenclature	PN	NSN
Hub, Main Rotor	ALL	ALL

4. INITIAL AIRCRAFT TAMMS (THE ARMY MAINTENANCE MANAGEMENT SYSTEM) ENTRY -

NOTE

When complying with the requirements of this message, complete forms and records entries IAW DA PAM 738-751. ULLS-A units will use appropriate "E" forms.

Upon receipt of this message, make the following entry on DA Form 2408-13-1. Enter a Red Horizontal Dash //--// status symbol with the following statement: "Comply with requirements of UH-1-11-ASAM-02 before [####.#] aircraft hours but NLT 25 JUL 11." Calculate [####.#] as the current aircraft hours plus 25 hours.

5. COMPLIANCE REPORTING REQUIREMENTS -

NOTE

Report compliance with this message, as defined below, via the AMCOM Message Tracking System (AMTRACKS) at ["https://amtracks.redstone.army.mil"](https://amtracks.redstone.army.mil). Unit personnel designated to submit compliance reports, that have not registered with AMTRACKS, must establish a profile at this web site before submitting their compliance reports.

5.1. Aircraft Initial Compliance Report - Submit Initial Compliance Report via AMTRACKS NLT 28 JUK 11 IAW AR 750-6. The Initial Compliance Report consists of the Aircraft SN, MDS, Date of Initial TAMMS Entry, and the following:

Aircraft Hours

Component #1 PN (White Blade Inboard Strap Fitting)

Component #1 SN

Component #1 Hours (TSN)

Component #2 PN (Red Blade Inboard Strap Fitting)

Component #2 SN

Component #2 Hours (TSN)

Inspection Results/Comments with the following information:

"PASS" if both Worm Gears and Strap Fittings fully engage and both Worm Gears pass the torque check.

"FAIL" if either Worm Gear and Fitting do not fully engage or if either Worm Gear fails the torque check.

"MPI Required" or "MPI not Required", as applicable.

If an Inboard Strap Fitting is NOT installed, enter "N/A" for the Component PN, SN, and Inspection Results/Comments, and enter "0000" for the Component Hours.

5.2. Aircraft Final Compliance Report - Submit Final Compliance Report via AMTRACKS within 3 days of the inspection, but NLT 26 OCT 11 IAW AR 750-6. This report will include the Component #1 Inspection Results, Component #2 Inspection Results (enter "MPI PASS", "MPI FAIL", or "N/A"), and check the box "Entered on DA Form 2408-5-1 (Inboard Strap Fitting)".

5.3. Retail Stock Task/Inspection Compliance Report (Installation level and below) - Submit Retail Stock

Task/Inspection Compliance Report via AMTRACKS NLT 25 JUL 11 IAW AR 750-6. This report will include Component Nomenclature, PN, SN, and Inspection Results (enter either "PASS" or "FAIL").

5.4. Wholesale Stock Task/Inspection Compliance Report (Including Depot Stock, Depot Maintenance and Single Stock Fund) - N/A.

6. SPECIAL PROVISIONS TO MESSAGE REQUIREMENTS (AIRCRAFT) -
Aircraft in Transit (Surface/Air Shipment/Ferry Status/Aircraft Away From Home Station) - Unit Commanders unable to comply with the requirement specified in para 4 may defer making the initial Aircraft TAMMS entry until arrival at final destination. Adjust the date in the TAMMS Entry to be NLT 14 days after arrival at destination.

7. TECHNICAL PROCEDURES/INSTRUCTIONS -

NOTE

This message includes a required Addendum. If the Addendum is not included with this message, it may be viewed/downloaded at "<https://asmprd.redstone.army.mil>". This is a secure website which requires an Army Knowledge Online (AKO), "<https://www.us.army.mil>", user ID and password.

NOTE

Unless otherwise stated, all maintenance tasks will be performed IAW TM 55-1520-210-23 and TM 1-1520-256-23.

NOTE

Requests for exceptions/deviations to this message will be submitted IAW AR 750-6. For assistance in requesting a waiver contact to the AMCOM Safety POC in para 13.4.1.

7.1. Flap the MR Blades to obtain clearance between the Static Stop and the Mast. Secure the Blades as required to prevent movement and perform a visual inspection of Inboard Strap Fittings.

NOTE

The following inspection must be performed for both MR Blade Grips.

7.1.1. Clean the Worm Gears and the Inboard Strap Fittings as required to visually inspect the engagement of the Worm Gear with the Inboard Strap Fitting.

NOTE

When performing the visual inspection, a gap of 0.009 inch is permitted between the top (major diameter) of the Worm Gear and the base (minor diameter) of the Inboard Strap Fitting.

7.1.2. Using an inspection mirror, visually verify "full engagement" of the Worm Gear teeth with the teeth of the Inboard Fitting. Full engagement is defined as contact of both flanks (contact face) of the Worm Gear with the opposing flanks (contact face) of the Inboard Fitting teeth.

7.1.3. Place a Torque Wrench on the Worm Gear Bolt and apply 60.0 inch pounds of torque. The Bolt should NOT turn.

7.1.3.1. If both Worm Gears are fully engaged and do NOT turn when torque is applied, proceed to para 7.2.

7.1.3.2. If either Worm Gear is NOT fully engaged, and/or a Worm Gear turns under the applied torque, the Inboard Strap Fitting is suspect. Make the following entry on the DA Form 2408-13-1. Enter a Red //X// status symbol with the following statement: "Inboard Strap Fitting unserviceable IAW UH-1-11-ASAM-02."

7.2. Inspect the aircraft records to determine if a Magnetic Particle Inspection (MPI) of the Inboard Strap Fitting(s) had been performed during a previous DEPOT level overhaul.

7.2.1. If it cannot be determined a previous DEPOT level MPI had been completed for each Inboard Strap Fitting, proceed to para 7.3.

7.2.2. If a previous DEPOT level MPI had been completed for both Inboard Strap Fittings, the inspection is complete. Proceed to para 7.4.

7.3. Inspect the aircraft DA Form 2408-16 to determine the Time Since New (TSN) for each Inboard Strap Fitting.

7.3.1. If the TSN of the Inboard Strap Fitting is LESS than 400 hours make the following entry on DA Form 2408-13-1.

Enter a Red Horizontal Dash //-// status symbol with the following statement: "Conduct Magnetic Particle Inspection of Inboard Strap Fittings IAW UH-1-11-ASAM-02 at [####.#] aircraft hours but NLT 23 OCT 11." Calculate [####.#] as the aircraft hours plus 100 hours; however, the calculated aircraft hours will NOT exceed 425 hours TSN of the Inboard Strap Fitting.

7.3.2. If the TSN of the Inboard Strap Fitting is MORE than 400 hours make the following entry on DA Form 2408-13-1.

Enter a Red Horizontal Dash //-// status symbol with the following statement: "Conduct Magnetic Particle Inspection of Inboard Strap Fittings IAW UH-1-11-ASAM-02 at [####.#]"

aircraft hours but NLT 23 OCT 11." Calculate [####.#] as the aircraft hours plus 25 hours.

7.3.3. The MPI will be conducted IAW para 7.5 of this ASAM.

7.4. Clear the initial entry from para 4 and note compliance on DA Form 2408-5-1 (Inboard Strap Fitting).

7.5. INBOARD STRAP FITTING MPI PROCEDURES.

7.5.1. Remove the MR Hub and Blade Assembly IAW TM-55-1520-210-23.

7.5.2. Disassemble MR Hub Assembly and remove MR Hub Strap Inboard Fittings, PN 204-012-102-5.

7.5.3. Referring to the Addendum to UH-1-11-ASAM-02 (AVIM) or DMWR 55-1560-196 (DEPOT), perform an MPI on the Inboard Strap Fittings to inspect for typical quench crack and location. In addition, carefully inspect all edges of the Inboard Strap Fittings for cracks.

7.5.3.1. If NO cracks are found, proceed to 7.5.4 for additional inspection instructions.

7.5.3.2. If cracks ARE found, the Inboard Strap Fitting is unserviceable and requires replacement.

7.5.4. Visually inspect all edges for raised material (shot peen rollover). The rollover can be seen and felt as a "step" or "ridge" at the edge. A finger nail or scribe can be utilized to detect the raised material. Caution - In some cases shot peen rollover can be sharp enough to cut a finger. If raised material is found, remove by hand using an India Stone. Maximum material removal is 0.010 inch X 40 to 50 degrees.

7.5.4.1. If the raised material CAN be removed within specified limits, proceed to para 7.5.5.

7.5.4.2. If raised material can NOT be removed within specified limits, the Inboard Strap Fitting is unserviceable and requires replacement.

7.5.5. Referring to the Addendum to UH-1-11-ASAM-02 (AVIM) or DMWR 55-1560-196 (DEPOT), perform an MPI on reworked areas of the Inboard Strap Fitting.

7.5.5.1. If NO cracks are found, proceed to para 7.5.6.

7.5.5.2. If cracks ARE found, the Inboard Strap Fitting is unserviceable and requires replacement.

7.5.6. For Inboard Strap Fittings which remain in service, touch up all reworked areas with brush-on Cadmium Plating IAW DMWR 55-1562-196 Section 4-14 i.1.(B) or MIL-STD-865.

7.5.7. Re-assemble MR Hub and Blade Assembly IAW TM-55-1520-210-23.

7.5.8. Re-install the MR Hub and Blade Assembly on aircraft IAW TM-55-1520-210-23.

8. PROCEDURES/INSTRUCTIONS FOR ASSEMBLIES/COMPONENTS/PARTS IN WORK OR IN STOCK (AT ALL LEVELS INCLUDING WAR RESERVES) -

Annotate the serviceability tag with: "Main Rotor Inboard Strap Fitting, UH-1-11-ASAM-02, not complied with." Do not remove original condition tags.

8.1. Items in Retail Stock - Commanders and facility managers that maintain retail stock at installation level and below will complete the following procedures.

8.1.1. Suspend issue of affected items until in compliance with message requirements.

8.1.2. Contact the supported aviation unit, as required, to perform the procedures required on affected items.

8.1.3. Comply with inspection and correction procedures as required to return items to serviceable stock.

8.1.4. Submit a Task/Inspection report IAW para 5.3.

8.2. Items in Wholesale Stock, Single Stock Fund, and in Work (Overhaul/Repair Facility) - Annotate the Serviceability Tag IAW para 8 of this ASAM.

9. SPECIAL TOOLS AND FIXTURES REQUIRED -

Nomenclature	PN	NSN
Bench, Buildup	T101356	4920006785431
Links, Grip Positioning	T101402	4920007186673
Puller, Bearing	T101406	4920007186666
Plate, Adapter Build Bench	T101421	4920008980015
Tool	67SPL1275-0114	

10. SUPPLY/PARTS (REQUISITION/DISPOSITION) -

10.1. Parts Required -

Nomenclature	PN/NSN	Qty	Cost ea.	Total \$
Fitting Assy,	204-012-102-5	2	\$1745.00	\$3490.00
Ret Strap	1615-00-848-4888			

Total cost per aircraft = \$3490.00

10.2. Bulk and Consumable Materials -

Nomenclature	PN	NSN
O-Ring	AS3209-237	5330-00-165-1955
O-Ring	AS3209-240	5330-00-165-1958
Corrosion Preventive	MIL-C-16173D	8030-00-231-2345
Compound, Solvent	Grade I	
Cutback, Cold Application		
Methanol, Technical	0-M-232	6810-00-275-6010
Sandpaper, Waterproof	P-P-101	5350-00-224-7203
Grit No. 320		
Methyl-Ethyl-Ketone	TT-M-261b	6810-00-281-2785
Sandpaper, Waterproof	P-P-101	5380-00-619-9167
Grit No. 80		
Adhesive, Epoxy	EA934	8040-01-102-2098
	Type I, Class 3	
Adhesive	MMM-A-134TY1	8040-00-270-8137

Lubricant, Solid Film, Heat Cure	MIL-L-8937D	9150-00-985-7255
Solvent, Drycleaning	MIL-PRF-680, Type II	6850-00-274-5421
Cloth, Crocus, 600 Grit	P-C-458	5350-00-221-0872
Abrasive Cloth, Silicon 120 Grit	P-C-451	5350-00-559-7780
Corrosion Preventive Petrolatum, Hot Application	MIL-C-11796B	8030-00-231-2353
SAE Aerospace Material Specification AMS-S-8802 Sealing Compound, Temperature Resistant, Integral Fuel Tanks and Fuel Cell Cavities, High Adhesion, or equivalent	AMS-S-8802	8030-00-723-2746

NOTE

Project Code "X7D" (X-ray Seven Delta) is required to track and establish a data base of stock fund expenditures incurred by the field as a result of message actions.

10.3. Requisitioning Instructions - Requisition replacement parts using normal supply procedures. All requisitions shall use Project Code "X7D".

10.4. Disposition of Discrepant Parts/Components - Unit will submit a Category "2" Quality Deficiency Report (CAT "2" QDR). Hold discrepant part pending disposition instructions from the Technical POC. If instructed to dispose of using normal supply procedures, all turn-in documents must include Project Code "X7D".

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

11. MAINTENANCE APPLICATION -

11.1. Category of Maintenance - AVUM for the initial visual inspections, AVIM/DEPOT for the MPI inspections.

11.2. Estimated Time Required -

11.2.1. Time to complete visual inspection (AVUM) - Total of 1.0 man-hour using 1 person.

NOTE

The time stated below does not include time for Maintenance Operational Checks or Test Flights.

11.2.2. Estimated Time Required to complete MPI and repair/replacement if required (AVIM/DEPOT) - Total of 40.0 man-hours using 2 persons.

12. PUBLICATION REQUIREMENTS -

- 12.1. References -
 - 12.1.1. AR 750-6.
 - 12.1.2. DA Pam 738-751.
 - 12.1.3. AR 200-1.
 - 12.1.4. TM 55-1520-210-23.
 - 12.1.5. TM 1-1520-256-23.
 - 12.1.6. DMWR 55-1560-196.
- 12.2. Publication Changes - N/A.

13. POINTS OF CONTACT -

- 13.1. Technical POCs -
 - 13.1.1. Primary - Mr. Tim Tucker, DSN 897-5685 or 256-313-5685. Fax: DSN 897-5668 or 256-313-5668. Email: "tim.tucker@us.army.mil".
 - 13.1.2. Alternate - Mr. Eric Clemmons, Camber, DSN 897-5678, or 256-313-5678. Fax: DSN 897-5668 or 256-313-5668. Email: "eric.clemmons@us.army.mil".
 - 13.1.3. Alternate - Mr. Martin Ohrenberg, DSN 897-5684 or 256-313-5684. Fax: DSN 897-5668 or 256-313-5668. Email: "martin.ohrenberg@us.army.mil".
- 13.2. Project/Product Manager (PM) Office POC - Mr. Howard Reeves, DSN 645-9701 or 256-955-9701. Fax: DSN 788-3449 or 256-842-3449. Email: "howard.reeves@us.army.mil".
- 13.3. Forms and Records POCs -
 - 13.3.1. Primary - Ms. Ann Waldeck, DSN 746-5564 or 256-876-5564. Email: "ann.waldeck@us.army.mil".
 - 13.3.2. Alternate - Ms. Renate Richters, DSN 746-2570 or 256-876-2570. Email: "renate.richters@us.army.mil".
- 13.4. AMCOM Safety POCs -
 - 13.4.1. Primary - Mr. Harry Trumbull, DSN 897-2095 or 256-313-2095. Email: "harry.trumbull@us.army.mil".
 - 13.4.2. Alternate - Mr. Don Swallom, DSN 788-8641 or 256-842-8641. Email: "donald.swallom@us.army.mil".
- 13.5. Foreign Military Sales POCs -
 - 13.5.1. Primary - Mr. Bill McClung, DSN 746-5452 or 256-876-5452. Email: "william.p.mcclung@us.army.mil".
 - 13.5.2. Alternate - Mr. Mike Strong, DSN 788-7753 or 256-842-7753. Email: "mike.strong@us.army.mil".
- 13.6. After hours, contact the AMCOM Operations Center (AOC), DSN 897-2066/7 or 256-313-2066/7.