

PRIORITY

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FM CDR ARNG-OAC EDGEWOOD MD//NGS-AVN-L//

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NOTE THIS IS A MAINTENANCE ADVISORY MESSAGE AND HAS NOT, REPEAT HAS NOT, BEEN TRANSMITTED TO UNITS SUBORDINATE TO ADDRESSES. ADDRESSES SHOULD IMMEDIATELY RETRANSMIT THIS MESSAGE TO ALL SUBORDINATE UNITS, ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED. THE RETRANSMITTAL SHALL REFERENCE THIS MESSAGE.

SUBJECT MAINTENANCE ADVISORY MESSAGE AUTHORIZING NEW LUBRICATION/INSPECTION REQUIREMENTS OF TAIL ROTOR FLEXIBLE COUPLINGS ON AH-/UH-1 HELICOPTERS (AH-1-77-1 AND UH-1-77-1)

1. PURPOSE OF THIS MESSAGE THIS ADVISORY IS TO ALERT ALL USERS OF A MODIFICATION IN THE LUBRICATION INTERVAL FOR THE TAIL ROTOR FLEXIBLE COUPLING SCHEDULED TO BE IMPLEMENTED WITH THE NEW PHASED

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MAINTENANCE CHECKLISTS, TM 55-1520-210-PMS DATED 31 DEC 76 AND TM 55-1520-210-PM DATED 24 DEC 76.

2. ALL AH-1/UH-1 AIRCRAFT MODELS ARE SUBJECT TO THE LUBRICATION/INSPECTION REQUIREMENTS DESCRIBED HEREIN. CORRESPONDING CHECKLISTS FOR ALL MODELS ARE IN DEVELOPMENT AND WILL BE FORTHCOMING.

3. REPORTS OF FLEXIBLE COUPLING FAILURES ARE STILL BEING RECEIVED. THESE REPORTS SHOW THAT ALTHOUGH SIGNIFICANT CALENDAR TIME HAD ELAPSED SINCE THE LAST PACKING, THE OPERATING TIME OF THE AIRCRAFT INVOLVED HAD NOT REACHED THE 600-HOUR LUBRICATION INTERVAL SPECIFIED BY THE AFFECTED TECHNICAL MANUAL. LOSS OF TAIL ROTOR THRUST HAS BEEN THE RESULT OF COUPLING/HANGER BEARING FAILURES.

4. THE FLEXIBLE COUPLING SHALL NOW BE REPACKED EVERY 600 OPERATING HOURS FROM LAST PACKING, AS BEFORE, BUT TO EXCEED 12 MONTHS FROM LAST PACKING DATE. DATE OF NEXT LUBRICATION IS NOW REQUIRED ON DA FORM 2406-18. THIS COUPLING IS COMMON TO THE TRANSMISSION TAIL ROTOR DRIVE QUILL, THE HANGER ASSEMBLIES, THE 42 DEGREE GEARBOX INPUT/OUTPUT QUILLS, AND THE 92 DEGREE GEARBOX INPUT QUILL.

5. IF DATE OF LAST PACKING CANNOT BE DETERMINED, OR WAS LAST PACKED MORE THAN 12 MONTHS AGO, SCHEDULE COUPLING LUBRICATION AT THE NEXT PERIODIC/PHASE INSPECTION. REPACK ALL COUPLINGS ON THE

Army

AH-1-77-1
inspection ref.
of T/R flex couplings
repack freq.

SAME HELICOPTER AT THIS TIME.

6. WHENEVER ANY OF THE FLEXIBLE COUPLINGS COME DUE FOR REPACKING, PERFORM THE FOLLOWING BEFORE DISASSEMBLY:

A. REMOVE DRIVE SHAFT COMPLETELY TO AVOID SIDELOADING THE ADJOINING DRIVE TRAIN COMPONENT; MANUALLY FLEX THE COUPLING AXIALLY WITH A SLIGHT TORQUE APPLIED (CLOCKWISE AND COUNTERCLOCKWISE) TO CHECK FOR WEAR, ROUGHNESS, OR BINDING OF SPLINES.

B. VISUALLY INSPECT FOR WEAR METAL PARTICLES ADJACENT TO THE COUPLING (OR THE BEARING).

C. WIPE THE SHAFT OF THE MALE COUPLING CLEAN OF GREASE RESIDUE WITH A LINT-FREE CLOTH TO CHECK FOR EVIDENCE OF AN OVERHEATING COUPLING (OR BEARING) AS INDICATED BY DISCOLORATION (SCUE TO BLUE/BLACK IN COLOR).

D. INSPECT COUPLING SEAL FOR LEAKS, CUTS, TEARS, AND DETERIORATION.

E. ON HANGER ASSEMBLIES, MANUALLY ROTATE THE COUPLING SLOWLY WITH ENOUGH AXIAL LOAD TO CHECK FOR BEARING ROUGHNESS AND BINDING.

F. ON HANGERS, INSPECT HANGER BEARING SUPPORT RING AND ATTACHMENT LUGS FOR CRACKS, ELONGATED BOLT HOLES, OR OTHER VISIBLE DAMAGE.

7. IF ANY OF THE ABOVE CONDITIONS ARE ENCOUNTERED, REMOVE AND

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REPLACE THE AFFECTED COMPONENT; SUBMIT THE DEFECTIVE UNIT TO DIRECT SUPPORT FOR REPLACEMENT OF COUPLING AND/OR BEARING; REFER TO APPLICABLE -22 MANUAL FOR PROPER INSTALLATION PROCEDURES.

8. COUPLINGS MAY BE REPACKED WHILE INSTALLED ON THE AIRCRAFT; REMOVE SPIRAL RETAINING RING FROM COUPLING WHILE HOLDING SEAL PLATE AGAINST SPRING PRESSURE; REMOVE PLATE AND SPRING; HOLD COUPLING AT FULL EXTENDED POSITION; REMOVE OLD GREASE AND CLEAN INTERNAL SPLINES; VISUALLY INSPECT SPLINES FOR GROOVES, UNUSUAL WEAR PATTERNS, AND DAMAGE; IF ANY SUCH CONDITION EXISTS, REMOVE AFFECTED COMPONENT AND SUBMIT TO DIRECT SUPPORT FACILITY.

9. CAUTION; DO NOT WASH, CLEAN, OR SPRAY THE BEARING OR HANGER ASSEMBLY WITH ANY TYPE OF SOLVENT; USE CLEAN LINT-FREE CLOTH TO CLEAN ASSEMBLY.

10. IF NO SUCH CONDITION EXISTS, HAND PACK THE OUTER COUPLING WITH GREASE (ANDEROL L-786, NSN 9150-00-926-1969, FOR ALL UH-1 AND AH-10 AND 0 MODELS; SYN-TECH 3913-01, NSN 9150-00-526-8497, FOR AH-10 MODELS) TO 1/8 INCH OVER TOP OF INTERNAL SPLINES OVER THE FULL EXPOSED LENGTH; KEEP COUPLING AT OUTWARD POSITION; REINSTALL SPRING, SEAL PLATE, AND RETAINING RING; PUSH AND PULL COUPLING GENTLY TO LIMIT OF TRAVEL SEVERAL TIMES TO DISTRIBUTE GREASE IN

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THE COUPLING.

WHENEVER A HANGER ASSEMBLY HAS BEEN REPLACED, MONITOR ITS PERFORMANCE CLOSELY. IMMEDIATELY AFTER AIRCRAFT HAS SHUT DOWN, CAUTIOUSLY FEEL THE BEARING HANGER; IF IT IS TOO HOT TO TOUCH, OR IF IT IS UNUSUALLY HOTTER THAN ADJOINING HANGERS, REMOVE AND REPLACE THE HANGER ASSEMBLY.

12. ON HANGER BEARINGS JUST INSTALLED, A SMALL BEAD OF GREASE
EXPELLED FROM AROUND THE LIP OF THE BEARING SEAL INDICATES SLIGHT
OVERFILLING OF THE BALL BEARING AT TIME OF MANUFACTURE AND IS NOT
CAUSE FOR ITS REJECTION. WIPE LUBE FROM SEAL WITH CLEAN, LINT-
FREE CLOTH AND KEEP UNDER SURVEILLANCE FOR NEXT 10 FLIGHT HOURS.
13. IF FURTHER INFORMATION IS REQUIRED, POINT OF CONTACT AT THIS
COMMAND IS THOMAS HECEI, ATTN DRSAV-FEU, AUTOVON 698-6516.

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