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MAILGRAN

1-009555A238 08/26/91 ICS DODCRSE ABN BESC SUSPECTED DUPLICATE 00325 DOD CRC ALBANY GA 270349Z AUG 91/239

USDA FOREST SVC AVIATION FIRE MGMT 3905 VISTA AVE BOISE ID 83705

1 R RUCIFRD5526 2390248 DA-BDCVBA R 261900Z AUG 91 ZEX FM CDRAVSCOM ST LOUIS MO //AMSAV-XSOF// TO RUCLRFA/USDA FOREST SERVICE AVIATION FIRE MGMT //3905 VISTA AVE BOISE ID 83705// DA-BDCVBA UNCLAS SECTION 01 OF 03 AIG 8708 TAKE FOR INFO ONLY AIG 9042 TAKE FOR INFO ONLY

SUBJECT - AVIATION SAFETY ACTION MESSAGE, MAINTENANCE MANDATORY, RCS CSGLD-1860(R1), ALL AH-1 AND UH-1 SERIES AIRCRAFT, CHANGE IN INSPECTION METHODS/PROCEDURES FOR THE TAIL ROTOR FLEXIBLE COUPLINGS. (AH-1-91-ASAM-15) (UH-1-91-ASAM-16) (TB 555-1520-243-20-17) NOTE - THIS IS AN AVIATION SAFETY ACTION MESSAGE AND HAS NOT BEEN TRANSMITTED TO UNITS SUBORDINATE TO ADDRESSEES. ADDRESSEES SHOULD IMMEDIATELY RETRANSMIT THIS MESSAGE TO ALL SUBORDINATE UNITS, ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED. THE RETRANSMITTAL SHALL REFERENCE THEOMESSAGE.

- 1. PRIORITY CLASSIFICATION -
 - A. AIRCRAFT IN USE N/A.

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- B. AIRCRAFT IN DEPOT MAINTENANCE N/A.
- C. AIRCRAFT UNDERGOING MAINTENANCE N/A.
- D. AIRCRAFT IN TRANSIT -
 - (1) SURFACE/AIR SHIPMENT N/A.
 - (2) FERRY STATUS N/A.
- E. MAINTENANCE TRAINERS (CATEGORY A, B AND OTHER) N/A.
- F. COMPONENT/PARTS IN STOCK INCLUDING WAR RESERVES AT ALL LEVELS (DEPOT AND OTHERS) - N/A.
- 2. TASK/INSPECTION SUSPENSE DATE N/A.
- 3. REPORTING COMPLIANCE SUSPENSE DATE N/A.
- 4. SUMMARY OF PROBLEM -
- A. INVESTIGATION INTO A UH-1H CLASS A MISHAP IN CENTRAL AMERICA HAS SHOWN THAT THE MALE SPHERICAL T/R DRIVESHAFT COUPLING WAS SEVERELY WORN TO THE EXTENT THAT DRIVE WAS LOST TO THE T/R.
 - B. A REVIEW OF THE CURRENT INSPECTIONS FOR BOTH THE MALE AND FEMALE PARTS OF THE FLEXIBLE COUPLING INDICATES THAT IMPROVEMENT TO THE INSPECTION PROCEDURES IS REQUIRED TO INCREASE CONFIDENCE IN IDENTIFYING COUPLINGS THAT ARE WORN BEYOND ALLOWABLE LIMITS. THE

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FREQUENCY OF INSPECTION WILL NOT BE CHANGED.

- C. INSPECTION METHODS AT THE DEPOT LEVEL HAVE ALSO BEEN PAGE 04 RUCIFRD5526 UNCLAS
- REVIEWED AND STANDARDIZED FOR MORE RELIABLE SCREENING OF COUPLINGS THAT ENTER DEPOT OVERHAUL WHETHER INSTALLED ON A TRANSMISSION, THE 42 OR 90 DEGREE GEARBOXES, OR T/R DRIVESHAFT HANGER ASSEMBLIES.
- D. THE PURPOSE OF THIS MESSAGE IS TO INFORM AH-1 AND UH-1 USERS THAT A CHANGE TO THE MAINTENANCE MANUALS IS FORTHCOMING AND PROVIDES THE NEW INSPECTION PROCEDURES FOR THE FLEXIBLE COUPLINGS. 5. END ITEMS TO BE INSPECTED - N/A.

6. ASSEMBLY COMPONENTS	AFFECTED -	
NOMENCLATURE	PART NO.	NSN
TRANSMISSION ASSY	ALL	ALL
QUILL ASSY, T/R	ALL	ALL
42 DEGREE GEAR BOX ASSY	ALL	ALL
90 DEGREE GEAR BOX ASSY	ALL	ALL
DRIVE SHAFT HANGER ASSY	ALL	ALL
7. PARTS AFFECTED -		
NOMENCLATURE	PART NO.	NSN
UH-1		

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COUPLING, MALE

SPHERICAL 204-040-603-7 1615-00-791-6073

AH-1

COUPLING, MALE

SPHERICAL 204-040-603-9 1615-00-523-9770

AH-1 SPUR GEAR

204-040-603-11 3020-00-439-5590

AH-1/UH-1

· DRIVESHAFT COUPLING

204-040-604-5 1615-00-701-4142 8. INSPECTION PROCEDURES -

- A. THE FOLLOWING SPECIAL INSPECTIONS SHALL REPLACE THE CURRENT SPECIAL INSPECTIONS OF THE TAIL ROTOR FLEXIBLE COUPLINGS IN EACH MANUAL SPECIFIED
 - (1) TM 55-1520-210-23-1, PAGE 1-106 "EVERY 600 HOURS OR ANNUALLY, WHICHEVER OCCURS FIRST, ACCOMPLISH THE FOLLOWING
 - A. LUBRICATE ALL TAIL ROTOR DRIVESHAFT FLEXIBLE COUPLINGS ON THE HANGER ASSEMBLIES, THE TAIL ROTOR OUTPUT QUILL OF THE TRANSMISSION, AND THE 42 DEGREE AND 90 DEGREE GEAR BOXES.

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- B. INSPECT COUPLING SPLINES FOR WEAR AND DAMAGE.
- C. VISUALLY CHECK FLEXIBLE COUPLING SEAL FOR PROPER

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1-009590A238 08/26/91 ICS DODCRSE ABN BESC 00345 DOD CRC ALBANY GA 270353Z AUG 91/239

USDA FOREST SVC AVI FIRE MGMT 3905 VISTA AVE B01SE ID 83705



1 R RUCIFRD5527 2390248 DA-BDCVBA
R 261900Z AUG 91 ZEX
FM CDRAVSCOM ST LOUIS MO //AMSAV-XSOF//
TO RUCLRFA/USDA FOREST SERVICE AVIATION FIRE MGMT
//3905 VISTA AVE BOISE ID 83705//
DA-BDCVBA
UNCLAS
SECTION 02 OF 03

INSTALLATION, CUTS, AND TEARS.

- D. DELETED.
- E. HANGER BEARING SUPPORT FITTINGS FOR NICKS, SCRATCHES, CORROSION, HOLE ELONGATION OR WEAR.
- (2) TM 55-1520-220-23-1, PAGE 1-88 SAME AS PARAGRAPH 8.A.(1) ABOVE.
- (3) TM 55-1520-234-23-1, PAGE 1-69
 "EVERY 600 HOURS OR ANNUALLY, WHICHEVER OCCURS FIRST ACCOMPLISH THE FOLLOWING
 - A. REMOVE, DISASSEMBLE, CLEAN, INSPECT, LUBRICATE, ASSEMBLE, AND REINSTALL MAIN DRIVE SHAFT ASSY, P/N 205-040-004-19.

INSPECT MAIN DRIVESHAFT FOR INTERNAL CORROSION.

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- B. LUBRICATE ALL TAIL ROTOR DRIVESHAFT FLEXIBLE COUPLINGS ON THE HANGER ASSEMBLIES, THE TAIL ROTOR OUTPUT QUILL OF THE TRANSMISSION, AND THE 42 DEGREE AND 90 DEGREE GEARBOXES.
- C. INSPECT COUPLING SPLINES FOR WEAR AND NICKS.
- D. VISUALLY CHECK FLEXIBLE COUPLING SEAL FOR PROPER INSTALLATION, CUTS, AND TEARS.
- E. INSPECT TAIL ROTOR DRIVESHAFT HANGER BEARINGS FOR EVIDENCE OF GREASE, LEAKAGE, CORROSION, OVERHEATING (BROWW DISCOLORATION OF GREEN ZINC CHROMATE ON HANGER), AND NOTCHINESS.

PAINT

- (4) TM 55-1520-236-23-1, PAGE 1-86.2 SAME AS PARAGRAPH 8.A.(3) ABOVE.
- B. THE MANUALS SHALL BE CHANGED TO REFLECT A NEW INSPECTION METHOD. VISUAL INSPECTION IS NOT ACCEPTABLE. SINCE THIS NEW INSPECTION METHOD INVOLVES SEVERAL FIGURES FOR ILLUSTRATION PURPOSES, IT COULD NOT BE INCLUDED IN THIS MESSAGE. A COPY OF THE NEW METHOD IS AVAILABLE FROM YOUR LOCAL LOGISTICS ASSISTANCE REPRESENTATIVE

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- (1) TM 55-1520-210-23-1
- PAGE 04 RUCIFRD5527 UNCLAS
 - (A) PARAGRAPH 6-129.D., PAGE 6-97.
 - (B) PARAGRAPH 6-169.F., PAGE 6-129.
 - (C) PARAGRAPH 6-172.B.(2), PAGE 6-133.
 - (D) PARAGRAPH 6-182.E., PAGE 6-138.
 - (E) PARAGRAPH 6-186.B., PAGE 6-141.
 - (F) PARAGRAPH 6-193.E., PAGE 6-148.
 - (G) PARAGRAPH 6-197.F., PAGE 6-161.
 - (2) TM 55-1520-220-23-1
 - (A) PARAGRAPH 6-157.D., PAGE 6-114.
 - (B) PARAGRAPH 6-213.A.(3), PAGE 6-146.1.
 - (C) PARAGRAPH 6-213.F., PAGE 6-148.
 - (D) PARAGRAPH 6-229.C., PAGE 6-156.
 - (E) PARAGRAPH 6-232.H., PAGE 6-158.
 - (F) PARAGRAPH 6-239.B.(7), PAGE 6-167.
 - (G) PARAGRAPH 6-243.I., PAGE 6-172.
 - (3) TM 55-1520-234-23-1
 - (A) PARAGRAPH 6-22.A.(4), PAGE 6-72.
 - (B) PARAGRAPH 6-22.E.(8A), PAGE 6-74.
 - (C) PARAGRAPH 6-24.C.(6), PAGE 6-79.
 - (D) PARAGRAPH 6-24.F.(5)(B), PAGE 6-80A.

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- (E) PARAGRAPH 6-26.B.(7)
- (F) PARAGRAPH 6-27A.D., PAGE 6-101.
- (4) TM 55-1520-236-23-1
 - (A) PARAGRAPH 6-47.G., PAGE 6-49.
 - (B) PARAGRAPH 6-85.J., PAGE 6-80.
 - (C) PARAGRAPH 6-110.G., PAGE 6-101.
 - (D) PARAGRAPH 6-126.I., PAGE 6-114.
- 9. CORRECTION PROCEDURES -
 - A. IMPLEMENT REVISED INSPECTION PROCEDURES/METHODS FOR THE DRIVESHAFT FLEXIBLE COUPLINGS, AS STATED IN PARAGRAPH 8 ABOVE, AT THE NEXT SCHEDULED "400 HOUR OR ANNUAL" INSPECTION.
 - B. CONTACT YOUR LOCAL LAR FOR A COPY OF THE REVISED INSPECTION METHOD. IF UNABLE TO CONTACT LOCAL LAR CONTACT AVSCOM LAR LISTED IN PARA 16. IMPLEMENTATION OF THE NEW METHOD REQUIRES THE USE OF A GAP SETTING GAGE, PART NO. TYPCL2STA, NSN 5210-00-278-1248. THIS GAGE IS NOT INCLUDED IN STANDARD TOOL SETS AND MUST BE REQUISITIONED PRIOR TO IMPLEMENTING THE NEW METHOD. A SUFFICIENT QUANTITY ARE AVAILABLE FROM THE GENERAL SERVICES ADMINISTRATION; HOWEVER, UNITS ARE ADVISED NOT TO REQUISITION MORE THAN NECESSARY TO ENSURE ALL REQUISITIONS CAN PAGE 06 RUCIFRD5527 UNCLAS
 - BE FILLED. COST OF THE GAGE IS APPROXIMATELY \$1.50.
 - C. COUPLINGS WHICH DO NOT MEET THE INSPECTION CRITERIA OF THE NEW METHOD, DURING THE NEXT SPECIAL INSPECTION ONLY, SHALL HAVE A CATEGORY II DEFICIENCY REPORT (DR) SUBMITTED IAW DA PAM 738-751, NO

23:06 EST

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1-009588A238 08/26/91 ICS DODCRSD ABN BESA SUSPECTED DUPLICATE 00344 DOD CRC ALBANY GA 270353Z AUG 91/239

USDA FOREST SVC AVIATION FIRE MGMT 3905 VISTA AVE BOISE ID 83705



1 R RUCIFRD5528 2390248 DA-BDCVBA R 261900Z AUG 91 ZEX FM CDRAVSCOM ST LOUIS MO //AMSAV-XSOF// TO RUCLRFA/USDA FOREST SERVICE AVIATION FIRE MGMT //3905 VISTA AVE BOISE ID 83705// DA-BDCVBA UNCLAS

FINAL SECTION OF 03

EXHIBIT IS REQUIRED. THESE DR'S SHALL BE SENT TO THE ATTENTION OF THE TECHNICAL POC LISTED IN PARAGRAPH 16 FOR BOTH THE AH-1 AND THE UH-1. THE PURPOSE OF SUBMITTING A DR IS FOR AVSCOM TO OBTAIN DATA ON THE OVERALL CONDITION OF COUPLINGS ON THE AH-1 AND UH-1 FLEET. AN AVSCOM REPLY WILL NOT BE FURNISHED.

- 10. SUPPLY/PARTS AND DISPOSITION N/A
- 11. SPECIAL TOOLS, JIGS AND FIXTURES REQUIRED AS REQUIRED PER MESSAGE.
- 12. APPLICATION -
 - A. CATEGORY OF MAINTENANCE AVUM.
 - B. TIME REQUIRED N/A.
- C. ESTIMATED COST IMPACT OF STOCK FUND ITEMS TO THE FIELD -- NOMENCLATURE PART NO./NSN QUANTITY COST EA. TOTAL \$ PAGE 03 RUCIFRD5528 UNCLAS 479.70 AH-1 COUPLING 204-040-603-9 4 1918.80 AH-1 GEAR 204-040-603-11 3 526.37 1579.11 AH-1 DRIVE. 204-040-604-5 7 256.00 1792.00 TOTAL MAX COST PER AH-1 AIRCRAFT 5351.91 UH-1 COUPLING 204-040-603-7 B 415.00 3320.00 UH-1 DRIVE 8 256.00 2048.00 204-040-604-5
 - D. TB/MWOS TO BE APPLIED PRIOR TO OR CONCURRENTLY WITH THIS INSPECTION - N/A.

TOTAL MAX COST PER UH-1 AIRCRAFT 5368.00

- E. PUBLICATIONS WHICH REQUIRE CHANGE AS A RESULT OF THIS MESSAGE - TM 55-1520-210-23-1, TM 55-1520-220-23-1, TM 55-1520-234-23-1, TM 55-1520-236-23-1, SHALL BE CHANGED TO REFLECT THIS MESSAGE. A COPY OF THIS MESSAGE 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, AVUM & AVIM MAINT. INSTRUCTIONS FOR UH-1 SERIES, DTD 30 SEPT 87, THRU CHG 20 DTD 1 JUL 91.

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