Subject

SAFETY OF FLIGHT MESSAGE, TECHNICAL, RCS CSGLD-1860(R1).

ALL UH-1H/V AIRCRAFT, ONE TIME INSPECTION OF MAST ASSEMBLY, (UH-1-00-09) (TB 1-1520-210-20-49).

NOTE

THIS IS A SAFETY OF FLIGHT MESSAGE ISSUED IAW AR 95-1, CHAPTER 6,

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1 SEP 97. THIS MESSAGE HAS NOT BEEN TRANSMITTED TO UNITS SUBORDINATE TO ADDRESSEES. ADDRESSEES SHALL IMMEDIATELY RETRANSMIT THIS MESSAGE TO ALL SUBORDINATE UNITS, ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED. THE RETRANSMISSION SHALL REFER TO THE MESSAGE. ACTION ADDRESSES WILL IMMEDIATELY VERIFY THIS TRANSMISSION TO CDR, AMCON, ATTN: AMSAM-SF-A (SOF COMPLIANCE OFFICER).

Priority Classification

NOTE

IAW AR 95-1, PARA 6-6A, MACON COMMANDERS MAY AUTHORIZE TEMPORARY EXCEPTION FROM SOF MESSAGE REQUIREMENTS. EXCEPTION MAY ONLY OCCUR WHEN COMBAT OPERATIONS OR MATTER OF LIFE OR DEATH IN CIVIL DISASTERS OR OTHER EMERGENCIES ARE SO URGENT THAT THEY OVERRIDE THE CONSEQUENCES OF CONTINUED AIRCRAFT OPERATION.

A. AIRCRAFT IN USE - UPON RECEIPT OF THIS MESSAGE, MAKE THE FOLLOWING ENTRY ON THE DA FORM 2408-13-1. ENTER A HORIZONTAL RED /// / STATUS SYMBOL WITH THE FOLLOWING STATEMENT: "INSPECT MAIN ROTOR MAST ASSEMBLY RECORDS IAW SOF MESSAGE UM-1-00-09 (TS 1-1520-210-20-49) BEFORE NEXT FLIGHT." CLEAR THE RED HORIZONTAL DASH /// / WHEN THE PROCEDURES IN PARA 8 AND 9 ARE COMPLETED. THE AIRCRAFT SHALL BE INSPECTED AS SOON AS PRACTICAL, BUT WITHIN 24 HOURS PRIOR TO NEXT FLIGHT. COMMANDERS WHO ARE UNABLE TO COMPLY WITH THE REQUIREMENTS OF THIS MESSAGE WITHIN THE TIME FRAME SPECIFIED WILL UPGRAGE THE AFFECTED AIRCRAFT STATUS SYMBOL TO A RED /// /.

B. AIRCRAFT IN DEPOT MAINTENANCE - DEPOT COMMANDERS WILL NOT ISSUE AIRCRAFT UNTIL THEY ARE IN COMPLIANCE WITH THIS MESSAGE.

C. AIRCRAFT UNDERGOING MAINTENANCE - COMMANDERS AND FACILITY MANAGERS WILL NOT ISSUE AIRCRAFT UNTIL THEY ARE IN COMPLIANCE WITH THIS MESSAGE.

D. AIRCRAFT IN TRANSIT -

(1) SURFACE/AIR SHIPMENT - PRIOR TO FIRST FLIGHT.

(2) FERRY STATUS - INSPECT AT FINAL DESTINATION.

E. MAINTENANCE TRAINERS (CATEGORY A AND B) - N/A.

F. COMPONENT/PARTS IN STOCK AT ALL LEVELS (DEPOT AND OTHERS) INCLUDING WAR RESERVES - UPON RECEIPT OF THIS MESSAGE, DEPOT AND MATERIAL ACTIVITY COMMANDERS WILL ENSURE THE MATERIAL CONDITION TAGS OF ALL ITEMS IN ALL CONDITION CODES LISTED IN PARAGRAPHS 6 AND 7 ARE ANNOTATED TO READ "SOF UM-1-00-09 (TS 1-1520-210-20-49), ONE TIME INSPECTION OF MAST ASSEMBLY, NOT COMPLIED WITH."

(1) WHOLESALE STOCK - REPORT RECEIPT OF THIS MESSAGE IAW PARAGRAPH 14C(1).

(2) RETAIL STOCK - REPORT RECEIPT OF THIS MESSAGE IAW PARAGRAPH 14C(2).

UPON RECEIPT OF THIS MESSAGE, COMMANDERS AND FACILITY MANAGERS MAINTAINING RETAIL STOCK AT INSTALLATION LEVEL AND BELOW SHALL CONTACT THE SUPPORTED AVIATION UNIT TO PERFORM THE PROCEDURES IAW PARAGRAPHS 8 AND 9 ON SUSPECT MATERIAL. DISPOSE OF DISCREPANT MATERIAL IAW PARAGRAPH 10. REPORT COMPLIANCE WITH THIS MESSAGE IAW PARAGRAPH 14C(3).

G. COMPONENT/PARTS IN WORK (DEPOT LEVEL AND OTHERS) - DEPOT AND OTHER MAINTENANCE ACTIVITY COMMANDERS WILL ENSURE ITEMS LISTED IN PARAGRAPHS 6 AND 7 ARE NOT ISSUED UNTIL THEY ARE IN COMPLIANCE WITH THIS MESSAGE.

Task/Inspection Suspension Date

- COMPLETE THE INSPECTION IAW

PARAGRAPH 8 PRIOR TO NEXT FLIGHT BUT NLT 29 JUNE 2000 AND REPORT IAW PARAGRAPHS 14A.

Reporting Compliance Suspension Date
- REPORT COMPLIANCE IAW

PARAGRAPH 14A NLT 6 JULY 2000.

Summary of Problem

NOTE
THERE IS PROVIDED FOR CLARITY:

A. THIS SAFETY MESSAGE IS PROMPTED BY AN IN-FLIGHT MAST SEPARATION WHICH OCCURRED ON A BELL HELICOPTER MODEL 212 HELICOPTER. THE INCIDENT INVESTIGATION REVEALED THAT THE CAUSE OF THE FAILURE WAS A FATIGUE FAILURE IN THE DAMPER CLAMP SPLINED AREA OF THE MAST POLE, SPECIFICALLY IN THE SNAP RING GROOVE. THE SAME MAST POLE IS USED ON ARMY UH-1H/V HELICOPTERS. ALTHOUGH THERE HAVE BEEN NO SIMILAR FAILURES ON ARMY AIRCRAFT, A TOTAL OF SEVEN FAILURES HAVE OCCURRED IN THE COMMERCIAL AREA. FURTHER INVESTIGATION HAS SHOWN THAT TWO MANUFACTURING DEFECTS IN THE DAMPER CLAMP SNAP RING GROOVES, BORRS AND UNDER SIZED RADI, CONTRIBUTE TO THESE FAILURES. THE MANUFACTURER HAS DEVELOPED A MAST POLE INSPECTION PROCEDURE. ARMY IMPLEMENTATION OF THE BELL PROCEDURES (I.E., TRAINING) IS BEING DEVELOPED AND WILL BE AVAILABLE IN A FOLLOW-ON MESSAGE IN THE NEAR FUTURE.

B. FOR MANNPOWER/DOWNTIME AND FUNDING IMPACTS SEE PARA 12.

C. THE PURPOSE OF THIS MESSAGE IS TO:
(1) RESTRICT FROM USE ALL MAST POLES THAT HAVE MORE THAN 400 HOURS TIME SINCE NEW (TSN) THAT HAVE NOT BEEN INSPECTED BY A BELL HELICOPTER SERVICE CENTER.
(2) ALLOW CONTINUED USE OF MAST POLES WITH LESS THAN 400 HOURS TSN UNTIL 31 DECEMBER 2000 OR UNTIL THE 400 HOURS TSN IS REACHED, WHICH EVER OCCURS FIRST.
(3) REQUIRE SPECIAL REPORTING OF ALL TRANSMISSION MAST ASSEMBLIES AND MAST POLES CURRENTLY IN THE FIELD AND ON AIRCRAFT.

End Items To Be Inspected
- ALL UH-1H/V SERIES AIRCRAFT.

Assembly Components to be Inspected

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NOMENCLATURE
P/N
TRANSMISSION MAST ASSY 204-040-366-(ALL DASH NUMBERS)
NSN 1615-00-255-2896 AND 1615-00-073-8203.

Parts to be Inspected

NOMENCLATURE
P/N
MAST ASSEMBLY (MAST POLE) 204-011-450-(ALL DASH NUMBERS) N/A

Inspection Procedures

A. INSPECT AIRCRAFT DA FORM 2408-16 TO DETERMINE THE CURRENT TSN AND TIME SINCE OVERHAUL (TSO) OF THE TRANSMISSION MAST ASSEMBLY (P/N 204-040-366-ALL DASH NUMBERS) LISTED IN PARAGRAPH 6.
B. INSPECT TRANSMISSION MAST ASSEMBLY (P/N 204-040-366-ALL DASH NUMBERS) DA FORM 2408-16 TO CALCULATE THE CURRENT TSN OF THE MAST POLE (P/N 204-011-450-ALL DASH NUMBERS) LISTED IN PARAGRAPH 7.
C. GAIN ACCESS TO THE TRANSMISSION MAST ASSEMBLY AND VERIFY THE SERIAL NUMBERS ON BOTH THE TRANSMISSION MAST ASSEMBLY AND THE MAST POLE. SEE CLARIFICATION NOTE AT THE BEGINNING OF PARA 4. REPORT SERIAL NUMBER/PART NUMBER/HOURS DISCREPANCIES IAM PARA 98.
D. PERFORM CORRECTION PROCEDURES IAM PARAGRAPH 9.

Correction Procedures

NOTE CURRENTLY, BELL HELICOPTER SERVICE CENTERS ARE THE ONLY KNOWN INSPECTION FACILITIES WITH THE SPECIALIZED EQUIPMENT AND TRAINING REQUIRED TO PERFORM THE SNAP RING GROOVE INSPECTIONS. MACOMS WISHING TO IMMEDIATELY INSPECT THEIR MASTS MAY CONTACT A BELL SERVICE CENTER IN THEIR AREA TO ARRANGE AN INSPECTION, OR MAY WAIT UNTIL THE ARMY HAS THIS CAPABILITY AVAILABLE. ANY COST ASSOCIATED WITH HAVING THIS INSPECTION PERFORMED BY BELL IS THE RESPONSIBILITY OF THE MACOM. ANY MAST FOUND WITH IMPROPER RADII OR BURRS IN THE SNAP RING GROOVE SHALL BE IMMEDIATELY REMOVED FROM SERVICE AND HELD FOR DISPOSITION INSTRUCTIONS PENDING FOLLOW-ON SOF MESSAGE. MACOMS ELECTING TO HAVE BELL SERVICE CENTERS PERFORM THE SNAP RING GROOVE INSPECTION SHALL PROCEED TO PARA 9C.

A. ACCOMPLISH THE FOLLOWING ACTIONS BASED ON THE TSN OF THE MAST POLE (P/N 204-011-450-ALL DASH NUMBERS) -

NOTE
INSPECTION OF MAST POLES WITH MORE THAN 1400 HOURS IS NOT CONSIDERED ECONOMICAL AT THIS TIME.

(1) TSN OVER 400 HOURS - MAST POLE SHALL NOT BE UTILIZED UNTIL INSPECTED FOR DEFECTS. IF INSTALLED ON AN AIRCRAFT, CHANGE THE STATUS SYMBOL OF THE AIRCRAFT TO A RED /X/ WITH THE FOLLOWING STATEMENT: "AIRCRAFT MAST POLE S/N XXXXX UNSERVICEABLE IAM SOF UH-1-00-09 (TB 1-1520-210-20-49)." INSTRUCTIONS FOR ACCOMPLISHING THE SNAP RING GROOVE INSPECTION SHALL BE PROVIDED IN A SEPARATE SAFETY OF FLIGHT MESSAGE. AIRCRAFT ON RED /X/ STATUS SYMBOL

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WAITING FOR INSPECTION OF THE MAST WILL BE MAINTAINED IN FLYABLE STORAGE WITH GROUND RUN-UPS AUTHORIZED.

(2) TSN LESS THAN 400 HOURS - MAST POLE MAY CONTINUE IN SERVICE IAW THE FOLLOWING - FOR MAST POLE ASSEMBLY WITH LESS THEN 400 HOURS TSN INSTALLED ON AIRCRAFT ENTER A RED HORIZONTAL DASH //--// STATUS SYMBOL ON THE AIRCRAFT DA FORM 2408-13-1 WITH THE FOLLOWING STATEMENT: "REMOVE MAST POLE S/N XXXXX FROM SERVICE FOR INSPECTION IAM SOF UN-1-00-09 (TB 1-1520-210-20-49), WHEN IT REACHES 400 HOURS TSN (XXXXX AIRCRAFT HOURS) OR 31 DECEMBER 2000, WHICHEVER COMES FIRST." MAST POLES REMOVED UNDER THIS CRITERIA WILL BE HELD FOR INSPECTION. INSTRUCTIONS FOR ACCOMPLISHING THE SNAP RING GROOVE INSPECTION SHALL BE PROVIDED IN A SEPARATE SAFETY OF FLIGHT MESSAGE.

UNITS USING THE MANUAL RECORD KEEPING SYSTEM MAY CARRY THE ENTRY FORWARD ONTO THE DA FORM 2408-14-1. ULLS-A UNITS WILL KEEP THE ENTRY ON THE 2408-13-1 AND LET IT CARRY FORWARD DAILY.

B. CONTACT THE 2410 HOTLINE TO RESOLVE ANY SERIAL NUMBER/PART NUMBER/HOURS DISCREPANCIES DISCOVERED DURING RECORDS CHECK. IF DISCREPANCIES CANNOT BE RESOLVED, MAST ASSEMBLY SHALL NOT BE RETURNED TO SERVICE.

NOTE


C. MAST POLES INSPECTED BY BELL HELICOPTER SERVICE CENTERS AND FOUND WITH DEFECTS (UNDERSIZED RADIUS OR BOWS IN THE DAMPER MOUNT SNAP RING GROOVES) ARE CONSIDERED UNSERVICEABLE AND SHALL BE REMOVED FROM SERVICE PENDING DISPOSITION INSTRUCTIONS IN FOLLOW-ON SOF MESSAGE. THESE UNSERVICEABLE MASTS MAY REMAIN ON THE AIRCRAFT TO FACILITATE GROUND RUNS UNTIL SUCH TIME THAT DISPOSITION INSTRUCTIONS ARE ISSUED.

D. MAST POLES INSPECTED BY BELL HELICOPTER SERVICE CENTERS THAT ARE FOUND WITHOUT DEFECTS MAY BE RETURNED TO SERVICE FOR THE REMAINDER OF THE PUBLISHED 1500 HOUR RETIREMENT LIFE AND AIRCRAFT STATUS SYMBOL MAY BE CLEARED.

Supply/Parts and Disposition

NOTE

HQDA-ODCSOPS WILL PRIORITIZE UNITS AND REPAIR PARTS DISTRIBUTION IN A SEPARATE, FOLLOW-ON MESSAGE.

A. PARTS REQUIRED - ITEMS CITED IN PARAGRAPHS 6 MAY BE REQUIRED TO REPLACE DEFECTIVE ITEMS.

B. REQUISITIONING INSTRUCTIONS - SUBMIT ONLY AS DIRECTED BY LOGISTICAL POC IN PARA 16B.

C. BULK AND CONSUMABLE MATERIALS - N/A.

D. DISPOSITION - HOLD PENDING FURTHER INSTRUCTIONS.

E. DISPOSITION OF HAZARDOUS MATERIAL - IAW ENVIRONMENTAL PROTECTION AGENCY DIRECTIVES AS IMPLEMENTED BY YOUR SERVICING ENVIRONMENTAL COORDINATOR (AR 200-1).

Special Tools and Fixtures Required

- N/A.

Application

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