

**Contents**

1. Subject
2. Priority Classification
3. Task/Inspection Suspense Date
4. Reporting Compliance Suspense Date
5. Summary of Problem
6. End Items To Be Inspected
7. Assembly Components to be Inspected
8. Parts to be Inspected
9. Inspection Procedures
10. Correction Procedures
11. Supply/Parts and Disposition
12. Special Tools and Fixtures Required
13. Application
14. References
15. Recording and Reporting Requirements
16. Weight and Balance
17. Points of Contact

*TB 1-1520-210-20-49  
UH 1-00-09  
M/R mast  
inspection*

**Display Without Table Of Contents**

142234Z JUN 00 OO OO UUUU AA ZYUW FROM :CDRAMCOM REDSTONE ARSENAL  
 AL//AMSAM-SF-A// TO :AIG 8881 :AIG 9004 :AIG 7515 :AIG 7471 :AIG 12124 :DCMC APMO  
 OZARK AL//DCMDE-AOA// :CDRAMCOM REDSTONE ARSENAL AL//AMSAM-RA-  
 FO// :ASF42 81ST ARCOM DOBBINS AFB GA :DEPT OF STATE AIR WING PATRICK AFB  
 FL :CDRCBDCOM ABERDEEN PROVING GROUND MD//AMSSB-ORT-A// :CDRUSAATC  
 ABERDEEN PROVING GROUND MD//CSTE-DTC- : AT-PC-WA// :RAYTHEON RANGE  
 SYSTEMS ENGINEERING KWAJALEIN MH//PAT2// :CDRWSMR ARMY AIR HOLLOMAN  
 AFB NM//CSTE-DTC-WS-NRO-F// :CDRUSADPG DUGWAY UT//CSTE-DTC-DP-DB-PO-  
 A// :USDOCO LANDSOUTHEAST IZMIR TU//AV// :WALLOPS FLIGHT FACILITY NASA  
 WALLOPS ISLAND VA : //CODE 831.2 AIRCRAFT QA// INFO :HQAFSPCCSS PETERSON  
 AFB CO//LGM/SEF// :CDRMDW WASHINGTON DC//ANLG-LS// :SECDEF WASHINGTON  
 DC//USDP-DSAA// :SECSTATE WASHINGTON DC//NEA/INL// :AFSOC HURLBURT FIELD  
 FL//LGMW// :HQ PACAFDPC HICKAM AFB HI//DO/LGM// :HQAMC SCOTT AFB  
 IL//LG/LGF/LGQ/DO/DOV/DOX/SEF// :89AW ANDREWS AFB MD//LG// :89OG  
 ANDREWS AFB MD//CC/OGV// :1HS ANDREWS AFB MD//CC/DO// :NAVAVNDEPOT  
 CHERRT PT NC//H1-ISST// :CDR FT BRAGG NC//AFZA-GT-OM// :CDR HQ 1ST COSCOM FT  
 BRAGG NC//LOGOPS AVN SECT// :PM SW FT MONMOUTH NJ//SFAE-IEWS-SG// :FAA  
 AERONAUTICALCEN OKLAHOMA CITY OK//AFS-620// :DISC PHILADELPHIA PA//QEBB-  
 JU// :CDR LSE AVIATION IZMIR TU//LSE// :HQ AETC RANDOLPH AFB  
 TX//DO/DOFI/SEF// :FAA SOUTHWEST RGN HQ FORT WORTH TX//ASW-  
 100// :CDRUSASMDC ARLINGTON VA//CSSD/ZA// XMT : ACCT : TEXT

**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,

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 RETRANSMITTAL SHALL REFERENCE THE MESSAGE. ACTION ADDRESSEES WILL IMMEDIATELY VERIFY THIS TRANSMISSION TO CDR, AMCOM, ATTN: AMSAM-SF-A (SOF COMPLIANCE OFFICER).

### Priority Classification

#### NOTE

IAM AR 95-1, PARA 6-6A, MCOM 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 UH-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 AFFECTED AIRCRAFT SHALL BE INSPECTED AS SOON AS PRACTICAL, BUT NLT PRIOR TO NEXT FLIGHT. COMMANDERS WHO ARE UNABLE TO COMPLY WITH THE REQUIREMENTS OF THIS MESSAGE WITHIN THE TIME FRAME SPECIFIED WILL UPGRADE THE AFFECTED AIRCRAFT STATUS SYMBOL TO A RED //X//.

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 MATERIEL 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 UH-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). UPON RECEIPT OF THIS MESSAGE, DEPOT AND MATERIEL ACTIVITY COMMANDERS WILL ENSURE ALL SERVICEABLE ITEMS (CONDITION CODES //N//, //B//, //C//, //D//, AND //E//) LISTED IN PARAGRAPHS 6 AND 7 LOCATED IN WHOLESALE DEPOT STORAGE ARE PLACED IN CONDITION CODE //J// AND TAGGED WITH A SUSPENDED TAG/LABEL - MATERIAL, DD FORM 1576/DD FORM 1576-1. DO NOT REMOVE ORIGINAL CONDITION TAGS. REPORT COMPLIANCE WITH THIS MESSAGE IAW PARAGRAPH 14D(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 MATERIEL IAW PARAGRAPH 10. REPORT COMPLIANCE WITH THIS MESSAGE IAW PARAGRAPH 14D(2).

G. COMPONENTS/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 Suspense Date

- COMPLETE THE INSPECTION IAW

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

### Reporting Compliance Suspense Date

- REPORT COMPLIANCE IAW

PARAGRAPH 14A NLT 6 JULY 2000.

### Summary of Problem

#### NOTE

THE FOLLOWING IS PROVIDED FOR CLARITY:  
THE TRANSMISSION MAST ASSEMBLY (P/N 204-040-366-15) (ITEM 4, FIGURE 150, TM 55-1520-210-23P-1) HAS A 1500 HOUR TBO. THE DATA PLATE (ITEM 27) FOR THE TRANSMISSION MAST ASSEMBLY IS LOCATED ON THE EDGE OF THE PLATE ASSEMBLY (ITEM 28). THE MAST ASSEMBLY (P/N 204-011-450) (ITEM 5) IS A SUB-ASSEMBLY OF THE TRANSMISSION MAST ASSEMBLY AND HAS A 1500 HOUR RETIREMENT LIFE. THE DATA PLATE FOR THE MAST ASSEMBLY IS AFFIXED TO THE POLE APPROXIMATELY 2 INCHES BELOW THE DAMPER MOUNT. TO AVOID CONFUSION BETWEEN THE TRANSMISSION MAST ASSEMBLY (P/N 204-040-366-15) AND THE MAST ASSEMBLY (P/N 204-011-450), THE MAST ASSEMBLY WILL BE REFERRED TO AS THE "MAST POLE" THROUGHOUT THE REMAINDER OF THIS MESSAGE.

A. THIS SAFETY OF FLIGHT MESSAGE IS PROMPTED BY AN IN-FLIGHT MAST SEPARATION WHICH OCCURRED ON A BELL HELICOPTER MODEL 212 HELICOPTER. THE POST ACCIDENT 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 ARENA. FURTHER INVESTIGATION HAS SHOWN THAT TWO MANUFACTURING DEFECTS IN THE DAMPER CLAMP SNAP RING GROOVES, BURRS AND UNDERSIZED RADII, CONTRIBUTE TO THESE FAILURES. THE MANUFACTURER HAS DEVELOPED A MAST POLE INSPECTION PROCEDURE. ARMY IMPLEMENTATION OF THE BELL PROCEDURES (I.E. TEAMS, TOOLS, TRAINING) IS BEING DEVELOPED AND WILL BE AVAILABLE IN A FOLLOW-ON MESSAGE IN THE NEAR FUTURE.

B. FOR MANPOWER/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, WHICHEVER 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



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 NSN  
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 IAW PARA 9B.
- D. PERFORM CORRECTION PROCEDURES IAW 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 RADIUS 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 IAW 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

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 ASSEMBLIES WITH LESS THAN 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 IAW SOF UH-1-00-09 (TS 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

ANY MASTS INSPECTED BY A BELL HELICOPTER SERVICE CENTER WILL HAVE THE DA FORM 2408-5-1 FOR THE TRANSMISSION MAST ASSEMBLY AND MAST POLE ASSEMBLY ANNOTATED WITH THE DATE OF THE INSPECTION, THE BELL HELICOPTER SERVICE CENTER THAT DID THE INSPECTION, TSN OF THE MAST, AND OUTCOME OF THE INSPECTION (DEFECTS FOUND OR RETURNED TO SERVICE).

C. MAST POLES INSPECTED BY BELL HELICOPTER SERVICE CENTERS AND FOUND WITH DEFECTS (UNDERSIZED RADII OR BURRS 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 BOMS 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 PARAGRAPH 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