

1 R RUCIFRD5036 0931517 DA=8DCVBA  
R 031830Z APR 90 ZEX  
FM CDR AVSCOM ST LOUIS MO //AMSAV-XSOF//  
TO RUCLRFA/CALIFORNIA DEPARTMENT OF FORESTRY AVIATION/  
//WARDALL PO BOX 944246 SACRAMENTO CA 94244-2460//  
DA=8DCVBA

UNCLAS

SECTION 01 OF 03

SUBJECT - ~~SAFETY-OF-FLIGHT MESSAGE~~, MAINTENANCE MANDATORY, RCS  
CSGLD-1860(R1) ALL AH-1 AND UH-1M SERIES AIRCRAFT, MAIN ROTOR PITCH  
HORN BOLTS (UH-1-90-03) (AH-1-90-04).

A. REPORTING SUSPENSE DATE - WITHIN 10 WORKING DAYS OF THE DATE OF  
THIS MESSAGE PER PARA 12A.

B. TASK/INSPECTION SUSPENSE DATE - PRIOR TO OR IN CONJUNCTION WITH  
THE NEXT DAILY INSPECTION.

NOTE - THIS IS A SAFETY-OF-FLIGHT 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 THIS MESSAGE. ACTION ADDRESSEES WILL IMMEDIATELY  
VERIFY THIS RETRANSMISSION TO COMMANDER, AVSCOM, ATTN - AMSAV-XSOF  
(SOF COMPLIANCE OFFICER).

C. EXPIRATION DATE - 03 OCT 90.

D. REFERENCES -

(1) TM 55-1500-220-PMO, PREVENTIVE MAINTENANCE DAILY FOR  
PAGE 03 RUCIFRD5036 UNCLAS  
AH-1G/S/P/E/F AND TH-1G HELICOPTER, DTD 14 OCT 80 THRU CHANGE 15,  
DTD 1 DEC 89.

(2) TM 55-1520-234-23-1, AVIATION UNIT AND INTERMEDIATE  
MAINTENANCE MANUAL FOR AH-1S (MOD), DTD 30 SEP 76 THRU CHANGE 63,  
DTD 1 DEC 89.

(3) TM 55-1520-234-CL, OPERATOR AND CREWMEMBER CHECKLIST FOR  
AH-1S, DTD 21 OCT 87 THRU CHANGE 3, DTD 3 FEB 89.

(4) TM 55-1520-234-10, OPERATORS MANUAL FOR AH-1S (MOD), DTD  
17 NOV 76 THRU CHANGE 27, DTD 30 AUG 89.

(5) TM 55-1520-236-23-1, AVIATION UNIT AND INTERMEDIATE  
MAINTENANCE MANUAL FOR AH-1P, E AND F, DTD 8 MAY 80 THRU CHANGE 55,  
DTD 1 FEB 90.

(6) TM 55-1520-236-CL, OPERATOR AND CREWMEMBER CHECKLIST FOR  
AH-1P/E/F, DTD 21 OCT 87 THRU CHANGE 3, DTD 3 FEB 89.

(7) TM 55-1520-236-10, OPERATORS MANUAL FOR AH-1S (PROD), DTD 11 JAN 80 THRU CHANGE 21, DTD 30 AUG 89.

(8) TM 55-1520-220-PMO, PREVENTIVE MAINTENANCE DAILY INSPECTION CHECKLIST FOR UH-1H AIRCRAFT, DTD 3 JUN 87 THRU CHANGE 2, DTD 5 OCT 89.

(9) TM 55-1520-220-CL, OPERATOR AND CREWMEMBER CHECKLIST FOR PAGE 04 RUCIFRD5036 UNCLAS UH-1C/H HELICOPTER, DTD 8 SEP 80 THRU CHANGE 6, DTD 5 JUL 84.

(10) TM 55-1520-220-10, OPERATORS MANUAL FOR UH-1C/H AIRCRAFT, DTD 8 SEP 80 THRU CHANGE 16, DTD 30 SEP 86.

1. SUMMARY OF PROBLEM -

A. A NUMBER OF MAIN ROTOR BLADE PITCH HORN BOLTS P/N 209-010-112-1 AND P/N 209-010-112-3 HAVE BEEN FOUND BROKEN. PRELIMINARY ANALYSIS INDICATES THE FAILURE MAY BE CAUSED BY STRESS CORROSION CRACKING. IN SOME CASES THE HEAD OF THE BOLT MAY BE CAPTURED IN THE WELL OF THE PITCH HORN BOLT AND APPEAR TO BE INTACT. THE PREVENTIVE MAINTENANCE DAILY (PMD) INSPECTION AND THE PREFLIGHT CHECKLIST BOTH REQUIRE AN INSPECTION/CHECK OF THE GENERAL AREA, BUT DO NOT SPECIFICALLY ADDRESS THE BOLTS. INVESTIGATION OF THE PITCH HORN BOLTS IS ON-GOING. UPON COMPLETION IF ADDITIONAL ACTION IS REQUIRED, UNITS WILL BE ADVISED.

B. THE PURPOSE OF THIS MESSAGE IS TO

(1) DIRECT A ONE-TIME INSPECTION OF INSTALLED MAIN ROTOR PITCH HORN BOLT IAW PARA 9 BELOW.

(2) ALERT THE USER TO DIRECT SPECIAL ATTENTION TO THE MAIN ROTOR PITCH HORN BOLTS DURING THE PERFORMANCE OF THE PMO INSPECTION AND PREFLIGHT CHECK (SEE PARA 10) PRIOR TO EACH FLIGHT. ACTUAL PAGE 05 RUCIFRD5036 UNCLAS

HANDS ON VERIFICATION TO INSURE BOLT INSTALLATION/SECURITY IS REQUIRED.

(3) NOTIFY THE USER THAT AN URGENT MANUAL CHANGE IS FORTHCOMING.

2. PRIORITY CLASSIFICATION -

NOTE - SEE AR 95-3, PARA 5-7A, FOR NONCOMPLIANCE AUTHORITY OF MAJOR COMMANDERS.

A. AIRCRAFT IN USE - UPON RECEIPT OF THIS MESSAGE THE CONDITION STATUS SYMBOL OF THE CITED AIRCRAFT WILL BE CHANGED TO A CIRCLED RED //X//. THE CIRCLED RED //X// MAY BE CLEARED WHEN THE INSPECTION OF PARAGRAPHS 9 AND 10 BELOW ARE COMPLETED. THE AFFECTED AIRCRAFT SHALL BE INSPECTED AS SOON AS PRACTICAL BUT NO LATER THAN THE TASK/INSPECTION SUSPENSE DATE. FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS MESSAGE WITHIN THE TIME FRAME WILL CAUSE THE STATUS SYMBOL TO BE UPGRADED TO A RED //X//. WHILE THE AIRCRAFT IS ON A CIRCLED RED //X// IT MAY BE REPORTED AS FULLY MISSION CAPABLE (FMC).

B. AIRCRAFT IN DEPOT MAINTENANCE - AIRCRAFT WILL NOT BE ISSUED UNTIL COMPLIANCE WITH THIS SOF HAS BEEN COMPLETED.

C. AIRCRAFT UNDERGOING MAINTENANCE - AIRCRAFT WILL NOT BE PAGE 06 RUCIFRD5036 UNCLAS

RELEASED UNTIL COMPLIANCE WITH THIS SOF MESSAGE HAS BEEN COMPLETED.

D. AIRCRAFT IN TRANSIT - SAME AS PARA 2A.

E. MAINTENANCE TRAINERS (ALL CATEGORY) - SAME AS PARA 2A.

1 R RUCIFRD5037 0931517 DA=BDCVBA  
R 031830Z APR 90 ZEX  
FM CDR AVSCOM ST LOUIS MO //AMSAV-XSOF//  
TO RUCLRFA/CALIFORNIA DEPARTMENT OF FORESTRY AVIATION/  
//WARDALL PO BOX 944246 SACRAMENTO CA 94244-2460//  
DA=BDCVBA

UNCLAS

SECTION 02 OF 03

HUB ASSEMBLY	540-011-101-23	1615-01-017-9926
HUB ASSEMBLY	540-011-101-129	1615-01-300-5539
HUB ASSEMBLY	540-011-101-131	1615-01-299-8099

5. PARTS TO BE INSPECTED -

NOMENCLATURE	PART NO.	NSN
BOLT, PITCH HORN	209-010-112-1	1615-00-997-2511
BOLT, PITCH HORN	209-010-112-3	5306-00-997-2512

6. APPLICATION -

A. CATEGORY OF MAINTENANCE - INSPECTION - AVUM, REPLACEMENT - AVIM, AIRCRAFT DOWNTIME WILL BE CHARGED TO APPROPRIATE AVUM/AVIM.

B. TIME REQUIRED TO INSPECT -

- (1) TOTAL OF 0.5 MANHOURS USING 1 PERSON.
- (2) TOTAL OF 0.5 HOURS DOWNTIME FOR ONE END ITEM.

C. TIME REQUIRED TO REPLACE -

- (1) TOTAL OF 1.0 MANHOURS USING 1 PERSON.
- (2) TOTAL OF 1.0 HOUR DOWNTIME FOR ONE END ITEM.

D. ESTIMATED COST IMPACT OF STOCK FUND ITEMS TO THE FIELD -

PAGE 03 RUCIFRD5037 UNCLAS

NOMENCLATURE	PART NO./NSN	QUANTITY	COST EA.	TOTAL \$
BOLT, PITCH HORN	209-010-112-1	4	11.25	45.00
BOLT, PITCH HORN	209-010-112-3	2	14.40	28.80
TOTAL COST PER AIRCRAFT				73.80

E. TB/MWOS TO BE APPLIED PRIOR TO OR CONCURRENTLY WITH THIS INSPECTION - N/A.

F. PUBLICATIONS WHICH REQUIRE CHANGE AS A RESULT OF THIS INSPECTION - A COPY OF THIS MESSAGE SHALL BE INSERTED IN THE APPROPRIATE TM AS AUTHORITY TO IMPLEMENT THE CHANGE UNTIL THE PRINTED CHANGE IS RECEIVED. THE FOLLOWING TECHNICAL MANUALS WILL BE REVISED AS FOLLOWS

- (1) TM 55-1520-234-23-1, PAGE 5-55, PARA 5-6F(9), ADD - PITCH HORN NUT TORQUE, 1000 PLUS OR MINUS 50 INCH POUNDS.
- (2) TM 55-1520-236-23-1, PAGE 5-98, PARA 5-43X, ADD - TORQUE

PITCH HORN NUTS TO READ 1000 PLUS OR MINUS 50 INCH POUNDS.  
(3) TM 55-1520-244-PMD WHICH SUPERSEDES TM 55-1500-220-PMD, IS  
SCHEDULED TO BE DISTRIBUTED TO FIELD UNITS IN APRIL 1990. AREA 6,  
MAIN ROTOR AREA, IS DIVIDED INTO TWO SECTIONS, (LEFT SIDE) AND  
(RIGHT SIDE). UNDER EACH HEADING THE FOLLOWING WILL BE ADDED  
"MANDATORY SAFETY OF FLIGHT ITEM"  
PAGE 04 RUCIFRD5037 UNCLAS

NOTE

ACTUAL HANDS ON VERIFICATION OF THE PITCH HORN BOLTS AND  
NUTS FOR INSTALLATION/SECURITY IS REQUIRED.

(4) TM 55-1520-220-PMD, PAGE 17, SEQUENCE NUMBER 8.4, ADD -  
"MANDATORY SAFETY OF FLIGHT ITEM"

NOTE

ACTUAL HANDS ON VERIFICATION OF THE PITCH HORN BOLTS AND  
NUTS FOR INSTALLATION/SECURITY IS REQUIRED.

7. SUPPLY/PARTS AND DISPOSITION -

A. PARTS REQUIRED - ITEMS CITED IN PARAGRAPHS 4 AND 5 MAY BE  
REQUIRED TO REPLACE DEFECTIVE ITEMS.

B. REQUISITIONING INSTRUCTIONS - REQUISITION REPLACEMENT PARTS  
THROUGH NORMAL SUPPLY CHANNELS USING NORMAL SUPPLY PROCEDURES.

C. BULK AND CONSUMABLE MATERIALS - N/A.

D. DISPOSITION - HOLD ANY UNSERVICEABLE PART/COMPONENT PENDING  
DISPOSITION INSTRUCTIONS FROM TECHNICAL POINT OF CONTACT PER PARA  
13A/B BELOW.

E. DISPOSITION OF HAZARDOUS MATERIAL - N/A.

8. SPECIAL TOOLS, JIGS AND FIXTURES REQUIRED - N/A.

9. INSPECTION PROCEDURES - ONE-TIME INSPECTION -

PAGE 05 RUCIFRD5037 UNCLAS

A. CHECK THE INSTALLED PITCH HORN BOLTS BY APPLYING THE NEWLY  
ESTABLISHED MINIMUM TORQUE (REF PARA 6F(1) OR 6F(2) ABOVE) OF 950  
INCH POUNDS (1000 INCH POUNDS FOR UH-1M).

B. BOLTS THAT SHOW SIGNS OF SIGNIFICANT TORQUE LOSS (I.E. 400  
INCH POUNDS OR LESS) DURING TORQUE CHECK WILL BE REPORTED TO THE  
TECHNICAL POC PER PARA 13A OR B BELOW.

C. THE ABOVE CITED PARTS THAT ARE FOUND DEFECTIVE WILL BE  
REMOVED/REPLACED AND REPORTED TO TECHNICAL POC PER PARA 13A/B.

10. CORRECTION PROCEDURES -

A. THE CONTENT OF THIS MESSAGE WILL BE BRIEFED TO ALL AH-1 AND  
UH-1M PILOTS/USERS AND A COPY OF THIS MESSAGE PLACED IN THE PILOT  
INFORMATION FILE.

B. CREWMEMBERS/USERS PAY SPECIAL ATTENTION TO THE MAIN ROTOR  
PITCH HORN BOLTS DURING THE PERFORMANCE OF THE PMD INSPECTION AND  
PREFLIGHT CHECK PRIOR TO EACH FLIGHT. ACTUAL HANDS ON VERIFICATION  
TO INSURE BOLT INSTALLATION/SECURITY IS REQUIRED.

11. WEIGHT AND BALANCE - N/A.

12. RECORDING AND REPORTING REQUIREMENTS

A. REPORTING SUSPENSE DATE (AIRCRAFT) - UPON ENTERING

14:11 EST

MGMCOMP