

URGENT

TB 1-1520-240-20-163

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

**MANDATORY MAINTENANCE FOR ALL
UPPER BOOST ACTUATORS (UBA)
CH-47D, CH-47F, MH-47D AND MH-47E AIRCRAFT**

Headquarters, Department of the Army, Washington, D.C.
24 January 2006

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

NOTE

This message is effective until rescinded or superseded

NOTE

This message is issued IAW AR 95-1 and has not been transmitted to units subordinate to addressees. Addressees will immediately retransmit this message to all subordinate units, activities or elements affected or concerned. MACOMs will immediately verify this transmission to the AMCOM SOF Compliance Officer (AMSAM-SF-A, safeadm@redstone.army.mil).

NOTE

MACOM commanders may authorize temporary exception from message requirements IAW AR 95-1, Ch 6. 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.

NOTE

Commanders unable to comply with the requirements of this message within the time frame specified will change the affected aircraft status symbol to a Red //X//.

1. SUMMARY.

a. Background. A Quality Discrepancy Report (QDR) shows that the end caps of an Upper Boost Actuator (UBA) were inadvertently swapped (reversed). There are 4 (ea) UBAs installed on the aircraft (Forward Pivoting, Forward Swiveling, Aft Pivoting, and Aft Swiveling Actuators). The UBAs have 2 (ea) servocylinders which are machined with different sized return ports so that the #1 and #2 hydraulic systems cannot be crossed into another. When crossed, this deficiency would eliminate aircraft hydraulic system redundancy.

b. Message Purpose:

- (1) Require inspection of all 4 UBAs for swapped end caps.
- (2) Require removal and replacement of subject UBAs.

2. **END ITEMS AFFECTED.** All H-47 Series Aircraft.

3. **ASSEMBLIES/COMPONENTS/PARTS AFFECTED.** Suspect/discrepant assemblies/components/parts

NOMENCLATURE	PN	NSN
DUAL ACTUATING PIVOTING CYLINDER (FORWARD)	145H6600-9 145H6600-11 145H6600-19	1650-01-151-1713 1650-01-118-5627 1650-01-304-9016
DUAL ACTUATING SWIVELING CYLINDER (FORWARD)	145H6700-9 145H6700-11 145H6700-19	1650-01-119-7412 1650-01-151-9232 1650-01-302-0076
DUAL ACTUATING PIVOTING CYLINDER (AFT)	145H6600-10 145H6600-12 145H6600-20	1650-01-151-5459 1650-01-117-4131 1650-01-303-7897
DUAL ACTUATING SWIVELING CYLINDER (AFT)	145H6700-8 145H6700-10 145H6700-18	1650-01-118-5628 1650-01-151-9231 1650-01-303-7898

NOTE

When complying with the requirements of this message, complete forms and records entries IAW DA PAM 738-751. ULLS-A units will use appropriate "E" forms.

4. **INITIAL TAMMS (THE ARMY MAINTENANCE MANAGEMENT SYSTEM) COMPLIANCE REQUIREMENTS.**

a. Upon receipt of this message, make the following entry on the DA Form 2408-13-1. Enter a Red Horizontal Dash // status symbol with the following statement: "Comply with requirements of CH-47-06-ASAM-01 during next 10 hour/14 day inspection but NLT 23 Sep 06."

NOTE

The TAMMS Compliance Reporting Form is available at "www.redstone.army.mil/sof/tamms.xls" (use lower case letters only) or may be obtained from the units servicing LAR. Alternate forms may be approved by the AMCOM SOF Compliance Officer.

NOTE

The TAMMS Compliance Report only confirms the unit has made the initial logbook entry for assigned aircraft. TAMMS Compliance Reports will include aircraft serial numbers (in numerical order), date of entry on DA Form 2408-13-1, unit address, local POC name and phone number

b. TAMMS Compliance Report. Submit TAMMS Compliance Report via priority email to "safeadm@redstone.army.mil" NLT 17 Jan 06 IAW AR 95-1. If email is not available, the report may be faxed to: SOF Compliance Officer at DSN 897-2111 or (256) 313-2111.

5. **TASK/INSPECTION COMPLIANCE REPORTING REQUIREMENTS.** N/A.

NOTE

The Task/Inspection Reporting Form is available at "www.redstone.army.mil/sof/log.xls" (use lower case only) or may be obtained from the units servicing LAR. This report will cite the message number, date of inspection, aircraft serial number, aircraft hours, component serial number, component hours, and results of the inspection.

a. Aircraft. Submit Task/Inspection Compliance Report for this message to LOG POC NLT 26 Jan 06.

b. Retail Stock. (Installation level and below) – Submit Task/Inspection Compliance report for this message to LOG POC NLT 26 Jan 06.

c. Wholesale Stock. (Including Depot Stock, Depot Maintenance and Single Stock Fund) – Report compliance with this message IAW para 8 to Wholesale POC NLT 26 Jan 06.

6. SPECIAL PROVISIONS TO MESSAGE REQUIREMENTS (AIRCRAFT).

a. Aircraft in AVIM or Depot level maintenance – Commanders, facility managers and contractors will not issue aircraft until they are in compliance with this message.

b. Aircraft at Contractor Facility – DD 250 aircraft will be in compliance with this message prior to departure.

c. Aircraft in Transit.

(1) Surface/Air Shipment and aircraft in Ferry Status/Away From Home Station comply with message requirements within 14 days of arrival.

(2) Ferry status/aircraft away from home station – Comply with message requirements 10 aircraft hours/14 days of arrival.

7. TECHNICAL PROCEDURES/INSTRUCTIONS.

NOTE

Supplemental information for this message can be viewed at (use lower case letters only) "<https://ams14.redstone.army.mil/safety/sof/pic/c47a0601.pdf>". Adobe version 6 or higher is required to view the supplement. For a free download of the current version go to "www.adobe.com".

NOTE

There are varying nomenclatures used to identify the 4 hydraulic actuators that attach to the forward and aft aircraft swashplates. For the purposes of this message, "UBA" will refer to the whole component assembly (Forward Pivoting, Forward Swiveling, Aft Pivoting, or Aft Swiveling actuators), and "servocylinder" will refer to either or both of the 2 servocylinders that are part of each UBA.

a. Prepare aircraft for safe ground maintenance.

b. Inspect all UBAs (4 ea) (Forward Pivoting, Forward Swiveling, Aft Pivoting, and Aft Swiveling) for proper return port sizes. Inspection may be completed by determining the wrench size (SAE) required for the mating fluid fitting nut. The return ports are part of the end caps and are located on the bottom of each servocylinder. Note that inspection criteria for the Aft Swiveling UBA differs from the Forward Pivoting, Forward Swiveling and Aft Pivoting UBAs. If any port size/wrench size is not as specified below, comply with requirements of para 7.c.

(1) Inspection of the Forward Pivoting, Forward Swiveling and Aft Pivoting UBAs.

(a) The forward end cap return port size is 1/2 inch and the wrench size is 1 inch.

(b) The aft end cap return port size is 3/8 inch and the wrench size is 13/16 inch.

(2) Inspection of the Aft Swiveling UBA.

(a) The forward end cap return port size is 3/8 inch and the wrench size is 13/16 inch.

(b) The aft end cap return port size is 1/2 inch and the wrench size is 1 inch.

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c. If any UBA port size/wrench size is not as specified above, complete the following for each suspect UBA.

(1) Make the following entry on the DA Form 2408-13-1. Enter a red //X// status symbol with the following statement: “[***] UBA unserviceable IAW CH-47-06-ASAM-01”. Replace [***] with appropriate UBA (Fwd/Aft Pivoting/Swiveling).

(2) Remove and replace suspect UBA IAW TM 1-1520-240-23 (CH/MH-47D/F) or TM 1-1520-252-23 (MH-47E/G), Chapter 7, as appropriate. Ensure replacement UBA complies with the requirements of this message.

d. Clear the initial entry from para 4.a. and note compliance on DA Form 2408-5-1 (Fwd/Aft Pivoting/Swiveling UBA).

8. PROCEDURES/INSTRUCTIONS FOR ASSEMBLIES/COMPONENTS/PARTS IN WORK OR IN STOCK (AT ALL LEVELS INCLUDING WAR RESERVES). Annotate the serviceability tag with : “CH-47-06-ASAM-01, Upper Boost Actuators, not complied with”. Do not remove original condition tags.

a. Items in Retail Stock – Commanders and Facility Managers that maintain retail stock at installation level and below will complete the following procedures.

(1) Suspend issue of affected items until in compliance with message requirements.

(2) Contact the supported aviation unit, as required, to perform the procedures required on affected items.

(3) Comply with inspection and correction procedures as required to return items to serviceable stock.

(4) Submit a Task/Inspection Report to Log POC IAW para 5.

b. Items in Single Stock Fund and in Work (Overhaul/Repair Facility).

(1) Depot, unit and other maintenance activity commanders will ensure items listed in para 3 are not issued until they are in compliance with this message.

(2) Submit Task/Inspection Compliance Report to Wholesale POC IAW para 5.

c. Items in Wholesale Stock – Depot storage facilities will complete the following procedures.

(1) Suspend issue of affected items until in compliance with message requirements.

(2) Submit Task/Inspection Compliance Report to Wholesale POC IAW para 5.

(3) Comply with additional instructions provided by the Wholesale POC to return items to their original condition code.

9. SPECIAL TOOLS AND FIXTURES REQUIRED. N/A.

10. SUPPLY/PARTS (REQUISITION/DISPOSITION).

a. Parts Required .

NOMENCLATURE	PN/NSN	QTY	COST EA.	TOTAL \$
DUAL ACTUATING PIVOTING CYLINDER	145H6600-19/ 1650-01-304-9016	1	\$16,781.00	\$16,781.00
DUAL ACTUATING SWIVELING CYLINDER	145H6700-19/ 1650-01-302-0076	1	\$15,555.00	\$15,555.00
DUAL ACTUATING PIVOTING CYLINDER	145H6600-20/ 1650-01-303-7897	1	\$13,945.00	\$13,945.00
DUAL ACTUATING SWIVELING CYLINDER	145H6700-18/ 1650-01-303-7898	1	\$45,608.00	\$45,608.00
TOTAL COST PER AIRCRAFT =				\$91,889.00

b. Bulk and Consumable Materials – N/A.

c. Requisitioning Instructions – Requisition replacement parts using normal supply procedures. All requisitions shall use Project Code (CC 57-59) “X3Q” (X-Ray-Three-Quebec).

NOTE

Project code “X3Q” is required to track and establish a data base of stock fund expenditures incurred by the field as a result of message actions.

d. Disposition of Discrepant Parts/Components – Dispose of using normal supply procedures. All turn-in documents must include Project Code (CC 57-59) “X3Q” (X-Ray-Three-Quebec).

e. Disposition of Hazardous Material – IAW Environmental Protection Agency directives as implemented by your servicing environmental coordinator (AR 200-1).

11. MAINTENANCE APPLICATION.

a. Category of Maintenance – AVUM.

b. Estimated Time Required.

(1) Time to Complete Inspection – Total of 0.5 man-hours using one person.

NOTE

The time stated below does not include time for Maintenance Operational Checks or Maintenance Test Flight, if required.

(2) Time for Repair/Replacement – Total of 6.0 man-hours using 2 persons with 3.0 hours “Not Mission Capable Maintenance” (NMCM) time per UBA.

12. PUBLICATION REQUIREMENTS.

a. References:

(1) AR 95-1.

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- (2) AR 200-1.
- (3) DA PAM 738-751.
- (4) TM 1-1520-240-23.
- (5) TM 1-1520-240-23P.
- (6) TM 1-1520-252-23.
- (7) TM 55-1520-252-23P.

b. Publication Changes – N/A.

13. POINTS OF CONTACT.

a. Technical POCs are:

(1) Primary – Mr. Michael B. Moore, AMSRD-AMR-AE-C, DSN 897-3617 or (256) 313-3617. Fax is DSN 897-4726 or (256) 313-4726. Email is "michael.moore@peoavn.redstone.army.mil".

(2) Alternate – Mr. Jim Hamilton, AMSRD-AMR-AE-C, DSN 897-3380 or (256) 313-3380. Fax is 897-4726 or (256) 313-4726. Email is "james.hamilton@peoavn.redstone.army.mil".

b. Logistical POCs are:

(1) Primary – Mr. James T. Appleton, SFAE-AV-CH, DSN 897-0729 or (256) 313-0729. Fax is 897-4726 or (256) 313-4726. Email is "james.appleton@peoavn.redstone.army.mil".

(2) Alternate – Mr. Bill Olson, SFAE-AV-CH, DSN 897-0721 or (256) 313-0721. Fax is 897-4726 or (256) 313-4726. Email is "william.olson@peoavn.redstone.army.mil".

c. Wholesale Material POC (Spares) is Mr. Robert King, AMSAM-MMC-AV-CA, DSN 897-3363 or (256) 313-3363. Fax is DSN 645-6453. Email is "robert.king@us.army.mil".

d. Forms and records POCs are:

(1) Primary – Ms. Ann Waldeck, AMSAM-MMC-MA-NM, DSN 746-5564 or (256) 876-5564. Fax is DSN 746-4904 or (256) 876-4904. Email is "ann.waldeck@redstone.army.mil".

(2) Alternate – Ms. Sibyl Johnson, AMSAM-MMC-MA-NM, DSN 788-6696 or (256) 842-6696. Fax is DSN 746-4904 or (256) 876-4904. Email is "sibyl.johnson@redstone.army.mil".

e. Safety POCs are:

(1) Primary – Mr. Randall Rushing (SAIC), AMSAM-SF-A, DSN 897-2092 or (256) 313-2092. Fax is DSN 897-2111 or (256) 313-2111. Email is randall.rushing@redstone.army.mil".

(2) Alternate – Mr. Russell Peusch, AMSAM-SF-A, DSN 788-8632 or (256) 842-8632. Fax is DSN 897-2111 or (256) 313-2111. Email is "russell.peusch@redstone.army.mil".

f. Foreign Military Sales POC is Mr. Ronnie W. Sammons, AMSAM-SA-AS-UT, DSN 897-0875 or (256) 313-0875. Fax is DSN 897-0411 or (256) 313-0411. Email is "ronnie.sammons@redstone.army.mil".

g. After hours, contact the AMCOM Operations Center (AOC) DSN 897-2066/7 or (256) 313-2066/7.

NOTE

A listing of published safety messages can be viewed at "<https://ams14.redstone.army.mil/safety/sof/index.html>". This is a secured website which requires an Army Knowledge Online (AKO) ("www.us.army.mil") ID and password.

14. REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS.

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, U.S. Army Aviation and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5000. You may also submit your recommended changes by E-Mail directly to 2028@redstone.army.mil or by fax (256) 842-6546/DSN 788-6546. A reply will be furnished directly to you. Instruction for sending an electronic 2028 may be found at the back of this publication.

By Order of the Secretary of the Army:

Official:



SANDRA R. RILEY
*Administrative Assistant to the
Secretary of the Army*

0602411

PETER J. SCHOOMAKER
*General, United States Army
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DISTRIBUTION:

To be distributed in accordance with the Initial Distribution Number (IDN) 314165, requirements for TB 1-1520-240-20-163.

These are the instructions for sending an electronic 2028

The following format must be used if submitting an electronic 2028. The subject line must be exactly the same and all fields must be included; however, only the following fields are mandatory: 1, 3, 4, 5, 6, 7, 8, 9, 10, 13, 15, 16, 17, and 27.

From: "Whomever" whomever@avma27.army.mil
To: 2028@redstone.army.mil
Subject DA Form 2028

1. **From:** Joe Smith
2. **Unit:** home
3. **Address:** 4300 Park
4. **City:** Hometown
5. **St:** MO
6. **Zip:** 77777
7. **Date Sent:** 19-OCT-93
8. **Pub no:** 55-2840-229-23
9. **Pub Title:** TM
10. **Publication Date:** 04-JUL-85
11. **Change Number:** 7
12. **Submitter Rank:** MSG
13. **Submitter FName:** Joe
14. **Submitter MName:** T
15. **Submitter LName:** Smith
16. **Submitter Phone:** 123-123-1234
17. **Problem:** 1
18. **Page:** 2
19. **Paragraph:** 3
20. **Line:** 4
21. **NSN:** 5
22. **Reference:** 6
23. **Figure:** 7
24. **Table:** 8
25. **Item:** 9
26. **Total:** 123
27. **Text:**

This is the text for the problem below line 27.

