

URGENT

*TB 1-1520-237-20-256

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

MAINTENANCE MANDATORY RCS CSGLD-1860 (R1), UH-60 SERIES AIRCRAFT INSPECT AN/ARC-220 WIRING FOR CHAFING

Headquarters, Department of the Army, Washington, D. C.
1 July 2002

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

1. Priority Classification. URGENT

NOTE

IAW AR 95-1, para 6-6a, MACOM Commanders may authorize temporary exception from 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. Upon receipt of this TB, make the following entry on the DA Form 2408-13-1. Enter a red horizontal dash // - // status symbol with the following statement: "inspect ARC-220 power amplifier/coupler (AM-7531/URC) wiring between STA 464 and 485 IAW TB 1-1520-237-20-256 within the next 10 flight hours, but not later than 26 June 2002." When the procedures IAW paragraph 8. are completed, clear the red horizontal dash // - // entry. The affected aircraft shall be inspected as soon as practical but no later than 26 June 2002. Commanders who are unable to comply with the requirements of this TB within the time frame specified will upgrade the affected aircraft status symbol to a red // x //.

b. Aircraft In Maintenance.

(1) Aircraft in AVUM, AVIM or depot level maintenance – same as paragraph 1.a..

(2) Aircraft at contractor facility – will inspect DD 250 aircraft prior to those aircraft departing for ferry to final destination.

c. Aircraft in Transit.

(1) Surface/air shipment – Within 10 hours/14 days of arrival.

(2) Ferry status – Same as paragraph 1.a..

d. Maintenance Trainers (Category A and B). Same as paragraph 1.a..

e. Component/Parts in Stock at All Levels (Depot Level and Others), including War Reserves. N/A.

f. Components/Parts in Work (Depot Level and Others). N/A.

* This TB supersedes USAAMCOM Aviation Safety Action Message, (ASAM) 121720Z JUN 02 (UH-60-02-ASAM-08).

2. Task/Inspection Suspense Date. Complete the inspection IAW paragraph 8. within the next 10 flight hours but NLT 26 June 02 and report IAW paragraph 14.a.(2) NLT 2 July 02.

3. TAMMS Reporting Compliance Suspense Date. Report compliance IAW paragraph 14.a.(1) NLT 2 July 02.

4. Summary of Problem -

a. Some UH-60 aircraft have been modified by MWO 1-1520-237-50-76 to introduce the AN/ARC-220 HF communications capability. 1000+ aircraft have been modified to date. Recent incidents indicate that wire chafing may be present at the bulkhead (former) adjacent to the power amplifier/coupler (AM-7531/URC) located in the transition area next to the receiver-transmitter (RT-1749/URC).

b. Manpower/downtime and funding impacts – See paragraph 12.

c. The purpose of this TB is to -

(1) Perform a one time inspection of UH-60 aircraft AN/ARC-220 wiring for chafing and/or arcing.

(2) Require modification of the P368R connector at J9726 connector to the power amplifier/coupler by changing the inline connector backshell to a 90-degree backshell.

5. End Items to be Inspected. All UH-60 aircraft modified with MWO 1-1520-237-50-76 (AN/ARC-220 installed).

6. Assembly Components to be Inspected.

NOMENCLATURE	PART NO.	NSN
AN/ARC-220 HF Radio Installation	4700479-10	1680-01-472-6661

7. Parts to be Inspected.

NOMENCLATURE	PART NO.	NSN
Wire Harness Assy, ARC-220 Power	4200508-10	N/A

8. Inspection Procedures.

NOTE

Supplemental information regarding this TB is available on the AMCOM safety website and UH-60 KAMNET.

(<http://www.redstone.army.mil/sof/suppl/u60a0208.pdf>)

(<http://www.uhpo.redstone.army.mil/>)

a. Inspect the DA Form 2408-5 to determine if the aircraft has been modified with MWO 1-1520-237-50-76 (AN/ARC-220 installed).

(1) If MWO 1-1520-237-50-76 (AN/ARC-220 installed) has not been applied, the inspection is complete. Clear the red horizontal dash // – // status symbol required by paragraph 1.a. of this TB.

(2) If MWO 1-1520-237-50-76 (AN/ARC-220 installed) has been applied, proceed to para 8.b..

b. Gain access to HF equipment shelf – transition area at WL 207.69. STA 464 TO STA 485.

c. Locate on the ARC-220 power amplifier/coupler wires P366R, P368R and P372R, which are connected to connectors J9724, J9726 and J9721 respectively.

d. If installed, remove spiral wrap. Discard spiral wrap. Inspect integrity of service loops emanating from the connectors.

e. Carefully inspect each wire harness IAW TM 1-1500-204-23-4 (Electrical And Instrument Maintenance Procedures And Practices) for damage caused by chafing against bulkhead (former) directly aft of the connectors.

(1) If any wire damage exceeds tolerance IAW above TM reference enter a circle red // X // on the DA Form 2408-13-1 "ARC-220 wiring damaged (i.e. chafed, cut, or broken) in transition area at power amplifier/coupler (AM-7531/URC), aircraft restricted from AN/ARC-220 operation". Disable HF power supply by physically disengaging the 30 AMP HF circuit breaker on the copilot's circuit breaker panel, apply a plastic tie-wrap to prevent closure of circuit breaker and notify technical point of contact in paragraph 16.a. with a description of damage proceed to para 9.a..

(2) If any arcing has occurred as a result of chafed wiring, enter a red // X // on the DA Form 2408-13-1 "AN/ARC-220 wiring and structure damaged from arcing in transition area at power amplifier/coupler (AM-7531/URC)" and notify technical point of contact in paragraph 16.a..

f. If no damage is noted, the inspection is complete. Clear the original red dash // - // entry from paragraph 1.a. and make the following red dash \\ - \\ entry on the DA Form 2408-13-1 "HF power amplifier/coupler (AM-7531/URC) connector P368R at (J9726) due modification IAW TB 1-1520-237-20-256 within the next 100 flight hours but not later than 12 June 2003". Proceed to paragraph 9.b..

9. Correction Procedures.

a. Any damaged wire that exceeds tolerance of TM 1-1500-204-23-4 shall be replaced. Replace any damaged wire IAW TM 11-1520-237-23 and TM 1-1500-204-23-4. When wire damage repair is complete, entry required by para 8.e.(1) will be cleared proceed to paragraph 9.b..

b. Modify power amplifier/coupler (AM-7531/URC) connector as follows –

- (1) Disconnect connector P368R AT J9726.
- (2) Remove inline connector backshell P/N M85049/52-1-22W.
- (3) Install 90-degree connector backshell P/N M85049/51-1-22W rotating the installed backshell downward to the 180 degree position.
- (4) Reconnect connector P368R at J9726.
- (5) Locate connector P366R at J7924; follow wiring to former at STA 485.
- (6) Drill one 0.194 inch diameter hole in the former one inch inboard of the former splice. Deburr hole. Treat all exposed areas with alodine.
- (7) Install clamp (MS21919WDG7) around control wiring. Attach clamp to former using one screw (MS51958-64), two washers(NAS1149C0332R) and one nut (MS21042L3).
- (8) Remove excess service looping to prohibit any of the wire harness from touching the bulkhead (former). Loosen and re-tighten cable tie down station as necessary to remove excessive service looping.
- (9) Wrap power and signal harness separately with protective tape NSN 5970-00-955-9976 (CAGE CODE 81349, P/N MIL-I-46852 or equivalent).
- (10) Inspect all reworked areas. Secure transition area. Clear red dash \\ - \\ entry required by paragraph 8.f..

10. Supply/Parts and Disposition.

a. Parts required – Items cited in paragraph 12.c. may be required to replace defective items. The repair parts will be provided as a kit.

b. Requisitioning instructions – Report IAW paragraph 14.a.(2). Units with aircraft that have the MWO applied but no damage to the aircraft shall provide a shipping address and POC phone number and email in addition the report required by paragraph 14.a.(2). The kits will be shipped to the unit at no cost. The kits are anticipated to begin to be available in mid August and will be shipped based upon unit priority. Units that do not provide report required per paragraph 14. will not receive repair parts kits.

c. Bulk and Consumable Materials -

NOMENCLATURE	PART NO.	NSN
BACKSHELL	M85049/51-1-22W	5935-01-190-6817 or 5935-00-501-0569
CLAMP	MS21919WDG7	5340-00-200-8559
SCREW	MS51958-64	5305-00-059-3660
WASHERS	NAS1149C0332R	5310-01-463-8841
NUT	MS21042L3	5310-00-807-1474
TAPE, INS, ELE	MIL-I-46852	5970-00-955-9976
ALODINE	MIL-C-5541	8030-00-142-9272

d. Disposition - N/A.

e. Disposition Of Hazardous Material - IAW Environmental Protection Agency directives as implemented by your servicing Environmental Coordinator (AR 200-1).

11. Special Tools, and Fixtures Required.. As required.

12. Application.

a. Category of Maintenance - AVUM. Aircraft downtime will be charged to AVUM maintenance. Report aircraft non-mission capable maintenance (NMCM) while undergoing inspection and correction IAW this TB.

b. Estimated Time Required:

- (1) Time to complete inspection -
 - (a) Total of 1 man-hour using 1 person.
 - (b) Total of 0 hours downtime for one end item.
- (2) Time for repair/replacement -
 - (a) Total of 2 man-hours using 1 person.
 - (b) Total of 2 hours downtime for one end item.

c. Estimated cost impact to the field - None.

NOMENCLATURE	PART NO./NSN	QTY.	COST EA.	TOTAL
BACKSHELL	M85049/51-1-22W 5935-01-190-6817 or 5935-00-501-0569	1 EA	\$5.29 EA	\$5.29
CLAMP	MS21919WDG7 5340-00-200-8559	1 EA	\$0.34 EA	\$0.34
SCREW	MS51958-64 5305-00-059-3660	1 EA	\$3.44 HD	\$0.03
WASHERS	NAS1149C0332R 5310-01-463-8841	2 EA	\$0.06 EA	\$0.12
NUT	MS21042L3 5310-00-807-1474	1 EA	\$9.06 HD	\$0.09
TAPE, INS, ELE	MIL-I-46852 5970-00-955-9976	1 RL	\$9.23 RL	\$9.23
ALODINE	MIL-C-5541 8030-00-142-9272	1 PT	\$4.50 PT	\$4.50

TOTAL COST PER AIRCRAFT = \$0.00 The

parts will be provided to the unit as a repair kit.

d. TB/MWOs to be applied prior to or concurrently with this inspection. MWO 1-1520-237-50-76.

e. Publications which require change as a result of this inspection:

MWO 1-1520-237-50-76, TM 11-1520-237-23 and TM 11-1520-237-23P shall be changed to reflect this TB. A copy of this TB shall be inserted in the appropriate TM as authority to implement the change until the printed change is received.

13. Reference.-

- a. DA PAM 738-751, 15 March 1999.
- b. TM 1-1500-204-23-4, 31 JUL 92.
- c. TM 11-1520-237-23, 1 APR 96.
- d. TM 11-1520-237-23P, 15 JUL 94.

14. Recording and Reporting Requirements.

a. Aircraft:

(1) TAMMS Reporting Compliance Suspense.

Upon entering requirements of this message on DA Form 2408-13-1 for all affected aircraft, commanders will forward a priority message, datafax or e-mail to CDR, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898-5000, IAW AR 95-1, NLT date specified in paragraph 3.. Datafax number IS DSN 897-2111 OR (256) 313-2111. E-mail address is "safeadm@redstone.army.mil". The report will cite this TB number, date of entry in DA Form 2408-13-1, the aircraft mission design series, and aircraft serial numbers in numerical order.

(2) Task/Inspection Reporting Suspense.

Upon completion of inspection, commanders will forward a priority message to the logistical point of contact listed in paragraph 16.b.. The report will cite this TB number, date of inspection, aircraft serial number, aircraft hours, MWO application (yes/no), results of the inspection, the unit ship to address and POC telephone number and e-mail. Inspection and reports will be completed NLT date specified in paragraph 2..

b. Wholesale Spare Parts/Assemblies. -

- (1) Reporting message receipt - N/A.
- (2) Task/inspection reporting suspense - N/A.

c. Retail Spare Parts/Assemblies. - N/A.

- (1) Reporting message receipt - N/A.
- (2) Task/inspection reporting suspense - N/A.

d. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 March 1999.

NOTE

ULLS-A users will use applicable "E" forms.

- (1) DA Form 2408-5, Equipment Modification Record.
- (2) DA Form 2408-13, Aircraft Status Information Record.
- (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
- (4) DA Form 2408-15, Historical Record For Aircraft.

15. **Weight and Balance.** N/A.

16. **Points of Contact.**

TB 1-1520-237-20-256

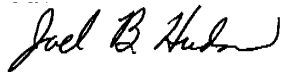
- a. Technical Point Of Contact for this TB is Mr. Ralph Vemmer, AMSAM-RD-AE-I-D-U, DSN 897-2350 EXT 9717, or (256) 705-9717. Alternate phone number, (256) 705-9719. DATAFAX is 897-9896 or (256) 705-9896. E-mail is "ralph.vemmer@rdec.redstone.army.mil"
- b. Logistical Point Of Contact is Mr. Joe Hoover, SFAE-AV-UH-L, DSN 645-7898 or (256) 955-7898, fax is DSN 897-3778 or (256)313-3778. Email is "joe.hoover@uh.redstone.army.mil"
- c. Wholesale Materiel Point Of Contact (spares) is Ms. Julia Moore, AMSAM-MMC-AV-UA, DSN 897-2012 or (256) 313-2012, Datafax is DSN 746-4591. E-mail is "julia.moore@redstone.army.mil".
- d. Forms and Records Point Of Contact for this TB is Ms. Ann Waldeck, AMSAM-MMC-MA-NM, DSN 746-5564 or (256) 897-5564, fax is DSN 746-4904 or (256) 876-4904. Email is "ann.waldeck@redstone.army.mil".
- e. Safety points of contact are:
 - (1) Primary – Mr. Frank Rosebery (SAIC), AMSAM-SF-A, DSN 788-8631 or (256) 842-8631, DATAFAX is DSN 897-2111 or (256) 313-2111. Email is "frank.rosebery@redstone.army.mil".
 - (2) Alternate – Mr. Ron Price, AMSAM-SF-A, DSN 788-8636 or (256) 842-8636, fax is DSN 897-2111 or (256) 313-2111. Email is "ron.price@redstone.army.mil".
- f. Foreign Military Sales recipients requiring clarification of action advised by this TB should contact:
 - (1) Primary: Mr. Ronnie W. Sammons, AMSAM-SA-AS-UT, DSN 897-0407 or (256) 313-0407. fax is DSN 897-0411 or (256) 313-0411. Email "ronnie.sammons@redstone.army.mil".
- g. After hours contact AMCOM Command Operations Center (COC) DSN 897-2066/7 or (256) 313-2066/7.

17. Reporting of Errors and Recommended Improvements. You can improve this TB. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail your letter or DA form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual, directly to: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-MA-NP, Redstone Arsenal, AL 35898-5000. A reply will be furnished to you. You may also provide DA Form 2028 information to AMCOM via e-mail, fax, or the World Wide Web. Our fax number is: DSN 788-6546 or Commercial 256-842-6546. Our e-mail address is: 2028@redstone.army.mil. Instructions for sending an electronic 2028 may be found at the back of this manual immediately preceding the hard copy 2028. For the World Wide Web use: <https://amcom2028.redstone.army.mil>.

TB 1-1520-237-20-256

By Order of the Secretary of the Army:

Official:



JOEL B. HUDSON

Administrative Assistant to the
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ERIC K. SHINSEKI
General, United States Army
Chief of Staff

DISTRIBUTION:

To be distributed in accordance with Initial Distribution Number (IDN) 314058, requirements for TB 1-1520-237-20-256.

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.