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1-004049A210 07/28/92 ICS DODC;RSE ABN BESC
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USDA FOREST SERVICE AVIATION
3905 VISTA AVE
BOISE ID 83705

1 R UCIIFRD4714 2091914 DA-BCVBA
R 2719007 JUL 92
FM CORATCOM (PROP) ST LOUIS MO/AMSAT-C-XS/
TO RUCLAFA/USDA FOREST SERVICE AVIATION FIRE MSMT 3905 VISTA AVE
BOISE ID 83705
DA-BCVBA
UNCLAS
SECTION 1 OF 2
SUBJECT - AVIATION SAFETY ACTION MESSAGE, MAINTENANCE MANDATORY, RCS
CSGLD-1860(1), UH-1H/V AIRCRAFT, INSTALLATION OF ARC-201 DIMMER
NETWORK ASSEMBLY IN AIRCRAFT PREVIOUSLY MODIFIED WITH MND
55-1520-210-50-21 (UH-1-92-ASAM-10).
NOTE
NOTE THIS IS AN AVIATION SAFETY ACTION MESSAGE AND HAS NOT BEEN
TRANSMITTED TO UNITS SUBORDINATE TO ADDRESSEES. ADDRESSES SHOULD
IMMEDIATELY RETRANSMIT THIS MESSAGE TO ALL SUBORDINATE UNITS.
ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED. THE RETRANSMITTHK
SHALL REFERENCE THE MESSAGE. ACTION ADDRESSES WILL IMMEDIATELY
VERIFY THIS RETRANSMISSION TO COMMANDER, ACOM, ATTN - AMSAT-C-XS
(SOF COMPLIANCE OFFICER).

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1. PRIORITY CLASSIFICATION-
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 PARA 8, OR CORRECTED PER PARA 9 BELOW IS COMPLETED.
U
THE AFFECTED AIRCRAFT SHALL BE INSPECTED AS SOON AS PRACTICAL BUT NO
LATER THAN THE TASK/INSPECTION SUSPENSE DATE.
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
RELEASED UNTIL COMPLIANCE WITH THIS SOF MESSAGE HAS BEEN COMPLETED.
D. AIRCRAFT IN TRANSIT-
(1) SURFACE/AIR SHIPMENT-PRIOR TO FIRST FLIGHT.
(2) FERRY STATUS-INSPECT AT FINAL DESTINATION.
E. MAINTENANCE TRAINERS (CATEGORY A, B AND C)-N/A
F. COMPONENT/PARTS IN STOCK INCLUDING WAR RESERVES AT ALL
LEVELS (DEPOT AND OTHERS)- N/A.
2. TASK/INSPECTION SUSPENSE DATE-DURING NEXT 60 DAYS OR 45 FLIGHT

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3. **Reporting Compliance Suspension Date—No later than 13 Aug 92 per Page Four RUCIFRD04714 UNCLASSIFIED**

**Para 14A.**

**Summary of Problem—**

A. Numerous UH-1 aircraft have been retrofitted with AN/ARC-201 SINGCARIS radios in accordance with M&Q 55-1520-210-50-21. After fielding began, testing at Ft. Rucker, AL revealed that the SINGCARIS U LIGHTING, powered from the 28VDC pedestal lighting rheostat thru a 115VAC inverter, was too bright and out of lighting balance with other controls in the pedestal. To correct this problem, a dimmer network assembly was designed to reduce voltage arriving at the 115VAC inverter and therefore reducing the lighting of the SINGCARIS radio. In the meantime, SINGCARIS fielding continued requiring the need to catch up with previously modified U AIRCRAFT. USE OF SINGCARIS IN UH-1 AIRCRAFT WITHOUT THE DIMMER NETWORK ASSEMBLY IS NOT SAFE FOR NVD FLIGHT.

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

C. THE PURPOSE OF THIS MESSAGE IS TO INSPECT SINGCARIS MODIFIED AIRCRAFT FOR THE EXISTENCE OF THE DIMMER NETWORK ASSEMBLY, RESTRICT AIRCRAFT WITHOUT DIMMER ASSEMBLY FROM NVD FLIGHT, AND PERFORM CORRECTIVE ACTION.

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5. **End Items to be Inspected—All UH-1 Aircraft.**

6. **Assembly Components to be Inspected—N/A**

7. **Parts to be Inspected—**

- **Nomenclature**
  - **Part No.**
  - **NSN**

- **PLATE ASSEMBLY, INVERTER**
  - CSK-9-03210-501
  - **NOT ASSIGNED**

8. **Inspection Procedures—**This inspection applies to aircraft where M&Q 55-1520-210-50-21 has been applied. All other aircraft are cleared for flight. Where the M&Q has been applied (check aircraft records) locate inverter plate assembly in nose of aircraft, pilot side, approximate fuselage station 2.5. Dimmer network assembly, if applied, will be mounted on forward side of inverter plate assembly. Aircraft (SINGCARIS equipped) without dimmer network assembly are restricted from NVD flight.

9. **Correction Procedures—**This message makes the dimmer network assembly a standard installation superseding requirement for airworthiness release for all UH-1 aircraft equipped with SINGCARIS radio. If dimmer network assembly is not installed, perform the following installation procedures:

- **A.** Obtain kit hardware P/N 90197301-501 from supporting OLR site.

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- **B.** DE-ENERGIZE CIRCUIT BREAKERS.

- **C.** DISCONNECT BATTERY.

- **Installation Procedures**

- **D.** IN NOSE COMPARTMENT, REMOVE RT-742C/ARC-518X RECEIVER/TRANSMITTER FROM ITS MOUNT ON THE LEFT SIDE NOSE FLOOR.

- **E.** REMOVE PROTECTIVE COVER FROM TB 102, LOCATED INBOARD SIDE OF...
LBL 10.5.
F. LOCATE 115VAC INVERTER AND PLATE ASSEMBLY ON LBL 10.5 AND REMOVE TWO FORWARD SCREWS.
G. PLACE DIMMER NETWORK ASSEMBLY (90197092-501), WITH SCREWDRIVER ADJUSTMENT FACING FORWARD, OVER TWO FORWARD SCREW HOLES AND REINSTALL RETAINING HARDWARE WITH TWO FORWARD SCREW HEADS OUTBOARD SIDE OF LBL 10.5.
H. ROUTE WIRES, ARC201-DIM-A AND ARC201-DIM-B, FROM DIMMER NETWORK ASSEMBLY TO TB 102, BETWEEN EL INVERTER AND PLATE. FOLLOW EL INVERTER LEADS DOWN TO TB 102. SECURE WIRES TO THE LEADS USING TYRAP, MS3367-1-9.
I. ON TB 102, TERMINAL 1, REMOVE NUT, FLAT WASHER AND RED INVERTER LEAD. ATTACH WIRE ARC201-DIM-A TO TERMINAL 1 WITH TERMINAL LUG MS25036-101. REINSTALL FLAT WASHER AND NUT.
J. REINSTALL RT-742C RECEIVER/TRANSMITTER TO ITS MOUNT ON LEFT SIDE OF NOSE FLOOR.
K. CALIBRATION PROCEDURES-
   (1) CHECK THAT RECEIVER/TRANSMITTERS FOR AN/ARC-201 RADIOS ARE INSTALLED IN AIRCRAFT IN ORDER TO PROVIDE CORRECT LOAD FOR THE DIMMER CONTROL ASSEMBLY.
   (2) RECONNECT BATTERY.
   (3) SET MULTIMETER TO READ DC VOLTS. CONNECT POSITIVE TEST LEAD TO TERMINAL 1 OF TB-102 AND NEGATIVE TEST LEAD TO AIRCRAFT GROUND.
   (4) AIRCRAFT MUST BE RUNNING WITH MAIN GENERATOR ON LINE. TURN POWER ON. CHECK THAT CIRCUIT BREAKERS FOR THE AN/ARC-201 RADIOS AND FOR COCKPIT PEDESTAL LIGHTING ARE ENERGIZED.
   (5) ADJUST PEDESTAL INSTRUMENT LIGHT RHEOSTAT TO MAXIMUM BRIGHT. READ VOLTAGE LEVEL AND TURN POWER OFF.
   (6) SET MULTIMETER TO READ AC VOLTS. CONNECT POSITIVE TEST
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UNCLASS

FINAL SECTION OF 2

LEAD OF THE MULTIMETER TO TERMINAL 3 OF TB-102 (115VAC) AND NEGATIVE TEST LEAD TO TERMINAL 4 OF TB-102.

7. CHECK LOCKING NUT ON THE RHEOSTAT SHAFT OF THE DIMMER CONTROL ASSEMBLY IS LOOSE.

(8) TURN POWER ON. USING VOLTAGE LEVEL TAKEN DURING STEP I.5 ABOVE AS INPUT VOLTAGE DETERMINE CORRECT OUTPUT VOLTAGE PER TABLE I.1 BELOW. USING A SCREWDRIVER, ADJUST RHEOSTAT UNTIL THE READING ON THE MULTIMETER MATCHES OUTPUT (VAC) IN TABLE I.1

<table>
<thead>
<tr>
<th>INPUT (VDC)</th>
<th>OUTPUT (VAC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>45.5</td>
</tr>
<tr>
<td>21</td>
<td>47.5</td>
</tr>
<tr>
<td>22</td>
<td>50.0</td>
</tr>
</tbody>
</table>

TABLE I.1

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23  52.5
24  55.0
25  57.5
26  60.0
27  62.5
28  65.0
29  67.5
30  70.0

9. TIGHTEN LOCKING NUT ON RHEOSTAT SHAFT.

(10) REINSTALL COVER FOR TB-102.

(11) TURN OFF POWER AND DISCONNECT BATTERY.

J. ACCOMPLISHMENT OF THE CORRECTION ABOVE CLEARS THE AIRCRAFT OF THE RESTRICTED STATUS AND IT SHALL BE CONSIDERED FULLY MISSION CAPABLE.

10. SUPPLY/PARTS AND DISPOSITION-
A. PARTS REQUIRED/OBTAIN PARTS FROM SUPPORTING OLR SITE.
B. REQUISITIONING INSTRUCTIONS-CONTACT YOUR SUPPORTING OLR

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SITE TO OBTAIN KIT HARDWARE. IF ASSISTANCE IS REQUIRED TO OBTAIN A KIT CONTACT LOGISTICS POC LISTED IN PARA 16B.

B. BULK AND CONSUMABLE MATERIALS-N/A

D. DISPOSITION-N/A

E. DISPOSITION OF HAZARDOUS MATERIAL-N/A

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

12. APPLICATION-
   A. CATEGORY OF MAINTENANCE-AVUM
   B. TIME REQUIRED-
      (1) TOTAL OF 2 MANHOURS USING 1 PERSON.

U

(2) TOTAL OF 2 HOURS DOWNTIME FOR ONE END ITEM.

C. ESTIMATED COST IMPACT OF STOCK FUND ITEMS TO THE FIELD ITEMS TO BE INSTALLED ARE FREE ISSUE AND WILL BE STORED AT APPLICABLE CLR SITES.

D. TB/MNOS TO BE APPLIED PRIOR TO OR CONCURRENTLY WITH THIS INSPECTION - M&O 55-1520-210-50-21.


13. REFERENCES -
   A. TM 55-1520-210-23
   B. TM 55-1520-210-23P
   C. M&O 55-1520-210-50-21

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14. RECORDING AND REPORTING REQUIREMENTS-
   A. REPORTING COMPLIANCE SUSTAIN DATE (AIRCRAFT)-UPON ENTERING REQUIREMENTS OF THIS MESSAGE ON DA FORM 2408-13, FORWARD A PRIORITY MESSAGE, DATAFAX OR E-MAIL TO COMMANDER, ATCOM, ATTN AMSAT-C-XS (SOF COMPLIANCE OFFICER), PER AR 95-3. DATAFAX NUMBER IS DSN 693-2584 OR COMMERCIAL 314/263-8964. E-MAIL ADDRESS IS AMSAVXSOF (AT SIGN) ST-Louis-EM3.ARMY.MIL. THE REPORT WILL CITE THIS MESSAGE NUMBER, DATE OF ENTRY IN DA FORM 2408-13, THE AIRCRAFT MISSION DESIGN SERIES AND SERIAL NUMBERS OF AIRCRAFT IN NUMERICAL ORDER.

B. TASK/INSPECTION REPORTING SUSTAIN DATE (AIRCRAFT)-WHEN IT IS VERIFIED THAT THE DIMMER NETWORK ASSEMBLY HAS BEEN INSTALLED (EITHER VIA THIS MESSAGE OR PREVIOUS ACTION), UNITS WILL REPORT VIA ONE OF THE FOLLOWING:

   (1) PRIORITY MESSAGE TO COMMANDER, ATCOM, ATTN: AMSAT-W-AU.

   (2) EMAIL TO COMMANDER, ATCOM, ATTN: AMSAT-W-AU PER AR 95-3.

   (3) DATAFAX TO COMMANDER, ATCOM, ATTN: AMSAT-W-AU
      (RIEBLING OR SUE BAECHLER), DSN 693-2588 OR COMMERCIAL

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314/263-2588.

PLEASE DO NOT REPORT VIA VERBAL MEANS. WRITTEN REPORTS ARE NEEDED FOR CONFIGURATION CONTROL PURPOSES. THE REPORT WILL CITE THIS MESSAGE NUMBER, DATE OF INSPECTION, AIRCRAFT SERIAL NUMBER, AND RESULTS OF INSPECTION. SPECIFY IF DIMMER NETWORK ASSEMBLY WAS

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