Section I of II

Date: This is a Safety-of-Flight Message and Has Not, Repeat 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. This Retransmittal Shall Reference This Message.

Subject: "Safety-of-Flight Message No. UH-1-76-14 and AH-1-76-10 (Non-Time Inspection) For Oil Cooler Installation of the UH-18/0/0/M, TH-10 and AH-10/1G Series Aircraft, 76-55-1570-296-29.

1. Summary of Problem - During the past three weeks two in-flight failures of oil cooler turbine fan assemblies were experienced; in one instance the fan assembly disintegrated and in the other all...
PART THREE RUTF/A1545 UNCLASS
4. ASSEMBLIES OR COMPONENTS TO BE INSPECTED—NOT APPLICABLE.
5. PARTS TO BE INSPECTED—
   M/N     NOMENCLATURE
   4730-05-75-3715  204-065-494-1 REDUCER, TUBE
6. APPLICATION—
   A. CATEGORY OF MAINTENANCE—
      1) OPERATIONAL AIRCRAFT—ORGANIZATIONAL MAINTENANCE,
      2) AIRCRAFT UNDERGOING MAINTENANCE—ORGANIZATION PERFORMING
      MAINTENANCE,
      3) AIRCRAFT IN TRANSIT—
         A) IN SURFACE SHIPMENT—MAINTENANCE ACTIVITY AT FINAL
         DESTINATION,
         B) IN CARRIER STATUS—TO BE INSPECTED AT FINAL DESTINATION;
   B. APPLIED BY— AIRCRAFT MECHANIC 47T (UH-1, OH-1),
   C. TIME REQUIRED—
      1) APPROXIMATELY 1/2 MAN-HOUR AND A MINIMUM CREW OF ONE MAN IS
      REQUIRED TO ACCOMPLISH THIS INSPECTION;
   D. PUBLICATIONS WHICH REQUIRE CHANGE AS A RESULT OF THIS MESSAGE—

PART FOUR RUTF/A1545 UNCLASS
7. SUPPLY KITS/PARTS AND DISPOSITION—
   A. KITS/PARTS REQUIRED, THE FOLLOWING PARTS WILL BE REQUISITIONED WHEN REQUIRED—
   QUANTITY NOMENCLATURE M/N PART NUMBER
   AR REDUCER, TUBE 4730-05-75-3715 204-065-494-1
   AR PACKING, PERFORRED 5330-00-099-2981 5-15413-6
   AR TURBINE FAN, ENGINE 2935-00-66-388 204-065-494-3
   B. PARTS DISPOSITION—
      1) ALL TUBE REDUCERS WHICH ARE REJECTED AS A RESULT OF THIS TB
      WILL, IF IN SERVICABLE CONDITION, BE RETURNED TO STOCKS IN ACCORDANCE
      WITH THEIR IDENTIFIED PART NUMBER AND M/N;
      2) WHEN AN INSTALLED TUBE REDUCER IS REJECTED AND REMOVED, THE
      OIL COOLER TURBINE FAN ASSEMBLY WILL BE REMOVED FROM THE AIRCRAFT PRIOR
      TO FURTHER FLIGHT, TAG AS PER TB 55-1520-220-20, MARK FOR ACC. NO,
      5-3783 AND SHIP TO CORPUS CHRISTI ARMY DEPOT, CORPUS CHRISTI, TEXAS,
      3) SPECIAL TOOLS, JIGS AND FIXTURES REQUIRED—NONE;
   8. INSPECTION INSTRUCTIONS—
      A. THE PART TO BE INSPECTED IS THE TUBE REDUCER, P/N 204-065-494-
      1, CONNECTING THE ENGINE BLEED AIR HOSE TO THE TURBINE FAN COVER AND

PART FIVE RUTF/A1545 UNCLASS
10. MOUTH ASSEMBLY,
2. INSPECT THE TUBE REDUCER AS FOLLOWS—
   1) TO INSPECT AN INSTALLED REDUCER, DISCONNECT THE AIR HOSE
      ASSEMBLY FROM THE REDUCER AND CHECK THE REDUCER SIZE BY ATTEMPTING TO
INSERT THE SHANK END OF A ONE-QUARTER INCH DRILL (VERIFIED BY MICRO-
METER TO BE NO LESS THAN .250 INCHES IN DIAMETER) INTO THE NOZZLE.
OPENING, THE P/N 269-260-494-1 REDUCER HAS A NOZZLE SIZE OF .249-.249
INCHES AND WILL NOT PERMIT PENETRATION BY THE DRILL SHANK, IF THE
DRILL SHANK DOES PENETRATE THE NOZZLE, THE TUBE REDUCER AND TURBINE
FAN ASSEMBLY WILL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH INSTRUC-
TIONS IN PARA SEVEN ABOVE, DO NOT REMOVE THE REDUCER FROM THE HOUSING
UNLESS IT IS SUSPECTED OR DETERMINED TO BE DEFECTIVE SINCE PREPARED
PACKING REPLACEMENT IS THEN NECESSARY.
(2) TO INSPECT AN UNINSTALLED REDUCER VERIFY THE NOZZLE SIZE BY
THE DRILL SHANK METHOD OR OTHER APPROPRIATE MEANS; INSURING THAT THE
INSPECTION IS PERFORMED AT THE SMALL END OF THE REDUCER SINCE THE
NOZZLE IS TAPERED TO A LARGER DIAMETER (.295 INCHES) AT THE X17 END,
DISPOSE OF REJECTED PARTS IN ACCORDANCE WITH PARA 7B ABOVE;
10, WEIGHT AND BALANCE DATA- NOT APPLICABLE.

PAGE SIX RUHFFA1545 UNCLAS
11, RECORDING AND REPORTING INSTRUCTIONS-
A, RECORD AND REPORT ACCOMPLISHMENT OF THIS INSPECTION IN ACCOR-
DANCE WITH THE PROCEDURES PRESCRIBED IN TM 39-757, THE FOLLOWING FORMS
ARE APPLICABLE- DA FORM 2407, MAINTENANCE REQUEST; DA FORM 2408-13,
AIRCRAFT INSPECTION AND MAINTENANCE RECORD; DA FORM 2409-15, AIRCRAFT
CRITICAL RECORD,
B, GROUNDING AND SAFETY-OF-FLIGHT MESSAGE FOLLOW-UP REPORT PNS-
AMO 213, ACTION ADDRESSES UPON COMPLETION OF THE REQUIREMENT SET
FORTH IN THIS MESSAGE OR NOT LATER THAN FIVE DAYS AFTER DATE OF THIS
MESSAGE, WILL FORWARD A MSG REPORT OF ACTIONS ACCOMPLISHED TO COM-
MANDER, USAAVC-6X, ATTN- DRAVE-XK, PER AR 95-18; THE REPORT WILL CITE
THE TB, THE AIRCRAFT MISSION DESIGN AND SERIES; AND PERTINENT SERIAL
NUMBERS OF THE AIRCRAFT, IF ALL REQUIRED ACTIONS ARE NOT COMPLETED;
THE REPORT WILL ALSO CONTAIN THE DATE BY WHICH IT IS ESTIMATED THEY
WILL BE COMPLETED, A FURTHER REPORT WILL BE FORWARD AFTER THE ACTIONS
HAVE BEEN COMPLETED, ROUTING SYMBOL AS CONTAINED IN AR 95-18 WILL BE
CHANGED AS INDICATED ABOVE.
C, REPORTING- UPON COMPLETION OF THE SUBJECT INSPECTION, UNIT
SHALL REPORT ALL INCIDENTS OF INCORRECT INSTALLED FITTING TO AVSCOM,
ATTN- DRAVE-FEU, AUTOVON 699-5266, COMMERCIAL 314-268-5066, AS SOON
AS POSSIBLE SO THAT DISPOSITION OF ASSOCIATED TURBINE FAN CAN BE
COORDINATED.

#3712
UNCLASSIFIED

SECTION II OF II

12. RELATED INFORMATION— PENDING RECEIPT OF CHANGES TO THE UH-1 AND AH-1 SERIES ORGANIZATIONAL MAINTENANCE MANUALS, THE FOLLOWING INSTRUCTIONS FOR INSTALLATIONS OF THE OIL COOLER FAN ASSEMBLY ARE PROVIDED:

A. TM 55-1520-110-28, (DATED 19 SEP 71, INCL CHG 26) PG 5-43;

Para 2-19H, add the following:

WARNING

USE OF INCORRECT TUBE REDUCER IN BLEED AIR LINE MAY CAUSE BLOWER OVERSPEED, INSTALL 274-662-494-1 REDUCER AT FAN INLET HOUSING WITH T53-L-11 OR T55-L-13 ENGINE INSTALLED;

TM 55-1526-220-28 (DATED 30 APR 73, INCL CHG 15) PG 5-45;

Para 2-22G, CHANGE WARNING AS FOLLOWS:

"; ; WITH T53-L-11 OR T55-L-13 ENGINE INSTALLED,"

TM 55-1526-221-28, (DATED 31 DEC 75, INCL CHG 4) PG 5-49;

Para 2-29E(9) add the following:

WARNING

USE OF INCORRECT TUBE REDUCER IN BLEED AIR LINE MAY CAUSE BLOWER OVERSPEED, INSTALL 274-662-494-1 REDUCER AT FAN INLET HOUSING WITH T53-L-13 ENGINE INSTALLED;

Para 2.13

Completed

Letter sent 7 July 76

MB
NOTE: This is a change to a safety-of-flight message and has not, repeat 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.

SUBJECT CHANGED TO TB 55-1920-222-20-25, ONE-TIME INSPECTION FOR OIL COOLER INSTALLATION OF THE UH-1B/C/D/H/M, TH-19 AND AH-10/C SERIES AIRCRAFT.

1. Reference safety-of-flight message no. UH-1-74-14 and AH-1-76-18, same subject, date 012252Z Jul 76.

2. The indicated paragraphs of the subject TB and referenced SOF are changed to read as follows:

79(1) Tube reducers which are rejected as a result of this TB will, if in serviceable condition, be returned to stocks in accordance with their identified part number and NSN. With the exception that those tube reducers with nozzles measuring between .290 and .260 inches will be scrapped.

79(2) When an installed tube reducer with nozzle diameter .260 inches or larger is rejected and removed, the oil cooler turbine fan assembly will be removed from the aircraft prior to further flight. Tag as per TB 1920-222-42-28, mark for ACC, NO. 4-3723 and ship to Corpus Christi Army Depot, Corpus Christi, Texas.

99(1) To inspect an installed reducer, disconnect the air hose assembly from the reducer and check the reducer size by attempting to insert the shank end of a one-quarter inch drill (verified by micrometer to be no less than .250 inches in diameter) into the nozzle opening. The correct nozzle will have a diameter of .245 to .249 inches and will not permit penetration by the drill shank. If the nozzle does permit penetration of the drill shank, further measurement of the nozzle should be taken by use of a ball gauge or other appropriate means.
TO DETERMINE ACTUAL NOZZLE DIAMETER, IF THE NOZZLE DIAMETER OF THE

PAGE 3 RUNTFFA1990 UNCLASS DISCREPANT REDUCER TUBE IS OBSERVED TO BE MORE THAN \( \frac{3}{250} \) INCHES BUT
LESS THAN \( \frac{3}{260} \) THEN THE REDUCER TUBE WILL BE REMOVED AND REPLACED
WITH A CORRECTLY DIMENSIONED 204-060-494-1 REDUCER TUBE. THE OIL COOLER
TURBINE FAN ASSEMBLY DOES NOT REQUIRE REMOVAL AND MAY BE CONTINUED
IN SERVICE, IF THE DISCREPANT REDUCER TUBE IS DETERMINED TO HAVE
A NOZZLE DIAMETER \( \frac{3}{260} \) INCHES OR LARGER, THE REDUCER TUBE WILL BE
REMOVED AND REPLACED WITH A CORRECTLY DIMENSIONED 204-060-494-1
REDUCER, AND THE OIL COOLER TURBINE FAN ASSEMBLY WILL BE REMOVED
AND DISPOSED OF IN ACCORDANCE WITH INSTRUCTIONS IN PARA 78 ABOVE.
DO NOT REMOVE THE REDUCER FROM THE HOUSING UNLESS IT IS SUSPECTED
OR DETERMINED TO BE DEFECTIVE, SINCE PREFORMED PACKING REPLACEMENT
IS THAN NECESSARY.

ST
#3112