UNCLASSIFIED

SECTION D1 OF D2

THIS IS A SAFETY OF FLIGHT, EMERGENCY, IMMEDIATE GROUNDING
MESSAGE, RELEASED IN ACCORDANCE WITH AR 95-18, DATED 1 MAY 1980 AND
HAS NOT, REPEAT, HAS NOT BEEN TRANSMITTED TO UNITS SUBORDINATE TO
ADDRESSEES. ADDRESSEES SHOULD IMMEDIATELY RETRANSMIT THIS MESSAGE TO
SUBORDINATE UNITS, ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED.
THE RETRANSMITTAL SHALL REFERENCE THIS MESSAGE. ACTION ADDRESSEES

WILL IMMEDIATELY VERIFY THIS RETRANSMISSION TO COMMANDER, AVSOM.

PAGE 03: RUCIFRLOAD UNCLAS

SUBJECT: SAFETY OF FLIGHT EMERGENCY MESSAGE IMMEDIATE GROUNDING ALL
SERIES UH-1 AIRCRAFT (EXCEPT C/M MODELS) (UH-1-A4-04) TB 55-1520-242-
20-A CONCERNING CLEVIS OF PITCH CHANGE LINK.

SUMMARY - PRELIMINARY ANALYSIS OF A RECENT UH-1H HELICOPTER
ACCIDENT INDICATED A FATIGUE FAILURE OF THE PITCH CHANGE LINK CLEVIS
(UH-1-A4-04) TB 55-1520-242-20-A CONCERNING CLEVIS OF PITCH CHANGE LINK.

FAILURE OF THIS PART DURING THE MANY YEARS AND MILLIONS OF
OPERATIONAL FLYING HOURS OF THE UH-1 SERIES HELICOPTER. ANALYSIS
REVEALED THAT THIS PART HAD BEEN REPLACED AND THE FAILURE MAY HAVE
BEEN INITIATED BY HYDROGEN EMBRITTLEMENT.

PURPOSE OF MESSAGE - TO PERFORM AN IMMEDIATE ONE TIME VISUAL
INSPECTION (ON THE HELICOPTER WITHOUT ANY DISASSEMBLY) TO DETERMINE
IF INSTALLED CLEVIS'S SHOW ANY INDICATION OF HAVING BEEN REPLACED.
IF ANY EVIDENCE OF REPLACING IS PRESENT, PART WILL BE IMMEDIATELY
REMOVED FROM SERVICE.

PRIORITY CLASSIFICATION - IMMEDIATE GROUNDING UPON RECEIPT OF
THIS MESSAGE THE CONDITION STATUS OF THE SUBJECT AIRCRAFT WILL BE
CHANGED TO A RED //X//, UNTIL THE REQUIREMENTS OF THIS MESSAGE ARE
MET.

PAGE 04: RUCIFRLOAD UNCLAS

INSPECTION PROCEDURE

A. USING A 5-10 POWER MAGNIFYING GLASS INSPECT THE EXPOSED
SURFACES OF THE CLEVIS FOR EVIDENCE OF PART HAVING BEEN REPLACED.
PARTS HAVE BEEN REPLATED IF THERE ARE CLEAR INDICATIONS OF PLATING MATERIAL VISIBLE IN THE PITS.

B. PARTICULAR ATTENTION SHOULD BE GIVEN TO ANY PITTED SURFACE. IF PIT IS BROWN/RUST COLORED, PART HAS NOT BEEN REPLATED. IF PIT HAS A GOLDEN OR SILVER COLOR WITHIN THE PIT, PART HAS BEEN REPLATED.

C. INSPECT THREADED AREA OF SHANK ABOVE JAM NUT FOR EVIDENCE OF CRACKS. IF CRACKS ARE SUSPECTED, THE CLEVIS WILL BE REMOVED AND MAGNETIC PARTICLE INSPECTED USING THE FOLLOWING PROCEDURE:
   (1) CLEAN PART THOROUGHLY, ESPECIALLY IN THREADED AREA USING WIRE BRUSH AND SOLVENT AS REQUIRED TO REMOVE ANY RESIDUE/DIRT.
   (2) PLACE PART IN COIL AND MAGNETIZE BY APPLYING 1000 - 1500 AMPS AC. WHILE CURRENT IS FLOWING, DRENCH PART WITH FLUORESCENT MAGNETIC PARTICLE FLUID THAT MEETS SENSITIVITY REQUIREMENTS IAW TM 43-0103.
FINS SECTION OF D2

(3) INSPECT USING ULTRAVIOLET LIGHT AND NOTE ANY CRACK INDICATIONS. IF NO INDICATIONS ARE PRESENT DEMAGNETIZE PART AND RETURN TO SERVICE.

D. IT IS NOT ANTICIPATED THAT ANY CRACKS WILL BE FOUND UNLESS EVIDENCE OF REPLATING IS PRESENT. IF ANY EVIDENCE OF REPLATING AS DESCRIBED ABOVE IS FOUND OR CRACKS ARE CONFIRMED CLEVIS SHALL IMMEDIATELY BE REMOVED FROM SERVICE.

PAGE D3 RUCIFRDLBA2 UNCLAS

NOTE

EVIDENCE OF CORROSION/RUST, EITHER CURRENT OR PREVIOUS, IS NOT CAUSE FOR REMOVAL. ONLY REPLATED PARTS AS DESCRIBED ABOVE ARE CONSIDERED POTENTIALLY DEFECTIVE. PARTS FOUND WITH CORROSION/RUST SHOULD HAVE CORROSION REMOVED VIA STANDARD PROCEDURES AND CONTINUED IN SERVICE.

5. DISPOSITION INSTRUCTIONS - PARTS REJECTED BY THE INSPECTION SHALL BE SENT TO CCAD, SDSCC-OMT, ATTN - LEROY PATTON, AUTOVON 541-45117 CORPUS CHRISTI, TX... FOR REINSPECTION/ANALYSIS BY THE MOST EXPEDITIOUS TRANSPORTATION AVAILABLE.

6. DEFECTED AIRCRAFT ON A RED-//X// STATUS SHOULD HAVE NORMAL MAINTENANCE CHECKS PERFORMED AS REQUIRED.

7. SUPPLY STATUS - REQUISITIONING OF REPLACEMENT CLEVIS WILL BE ACCOMPLISHED THROUGH NORMAL SUPPLY CHANNELS. A LIMITED NUMBER OF SPARE CLEVIS ARE CURRENTLY AVAILABLE AND ACTION IS BEING TAKEN TO ACCELERATE DELIVERIES FROM CURRENT CONTRACTORS.

8. AIRCRAFT IN TRANSIT ARE NOT AUTHORIZED A ONE TIME FLIGHT.

9. PARTS IN STOCK WILL BE INSPECTED PRIOR TO INSTALLATION.

PAGE D4 RUCIFRDLBA2 UNCLAS

10. RECORDING AND REPORTING OF INSPECTION -

A. RECORD ACCOMPLISHMENT OF YOUR INSPECTION IN ACCORDANCE WITH THE PROCEDURE IN TM-3A-750. THE FOLLOWING FORMS ARE APPLICABLE.
IMMEDIATE

O CTUZYM RULHEAD 197 1951328-0000--R W:\:

O ZMR UWWU
O 131108Z JUL 04
O FM CDR ARNG APM/MD//NGB-AVN-L/
O TO AIC 7401

O COLGMA WY-VI 31 CRO X VI
O GCTA DA BHCSD
O 132103Z JUL 04
O FM CDRAWSCOM STI NO//DRS-N--M/
O TO AIC 88A1

O PUCPLA/AGY PAF BOX 15027 LAS VEGAS NV
O PUEUDP//US EVN PROG AGY REGION II 20 FEDERAL PL AZA NY
O RUDEMA//NATIONAL OCEANIC AND ATMOSPHERIC ADMIN ROCKVILLE MD
O //ADAM 293 COL L. A. WEAVER
O RUENII//NASA KENNEDY SPACE CENTER CAPE CANAVERAL FL
O //SI-SAT-23//
O RUENII//MIT TAIPEI TAIWAN
O RUENCAIT WASH DC
O RUENCONUSMILCP SAN SALVADOR EL SALVADOR //SSES-AF//
O RUESCO//CONUSMILCP BOGOTA COLOMBIA //SCD-APDC//
O RUENCA AIRFLIGHT ARSENAL AL //DSMI-S//C
O RUENII//US CUSTOMS SERVICE DEPT OF TREASURY WASH DC
O RUENII//US MC/FL AFB FL //RCS-AVN/
O O AIC 2004
O 7-515

O PUCLESA/CDRUSNAVFC FT RUCKER AL //MTZ-01//
O RUGNAD//USDAG TEL AVIV ISRAEL

PAGE 52 RUCIFR德 UHCLAS
O RUENC/FC USA WASH DC //NMA//MFO//
O RUENII//AMCHP ROMA ITALY //ODC//
O RUENII//DISC PHILADELPHIA PA //OEB-JB//
O RUENII//CDR US MC AFB FL //RCS-AVN/
O RUENII//CGJUSMAC BANGKOK THAILAND
O RUENII//CGJUSMAC MAC MADRID SPAIN //ARMY//NAVY SEC//
O RUENII//HENC MELBOURNE AUSTRALIA //SOAR ENG//
O FEGWPP//DEFAIR CANBERRA AUSTRALIA //OPHEL-AF//
O FEGWPP//USDAG FOREST SERVICE PO BOX 2447 WASH DC 20013
O //COOPERATIVE FIRE PROTECTION//
O GCTA DA BHCSD

UF CLS
O SECTION 01 OF 02
O SHEET - THIS IS A SAFETY OF FLIGHT, EMERGENCY, IMMEDIATE GROUNDING
O MESSAGE. RELEASED IN ACCORDANCE WITH AR 75-1A. DATED 1 MAY 1980 AND
O NOT, REPEATED, HAS NOT BEEN TRANSMITTED TO UNITS SUBORDINATE TO
O ADDRESSEES. ADDRESSEES SHOULD IMMEDIATELY RETRANSMIT THIS MESSAGE TO
O SUBORDINATE UNITS. ACTIVITIES OR ELEMENTS AFFECTED OR CONCERNED.
O THE RETRANSMITTAL SHALL REFERENCE THIS MESSAGE. ACTION ADDRESSEES
O WILL IMMEDIATELY VERIFY THIS RETRANSMISSION TO COMMANDER. AVSOM.
SUBJECT - SAFETY OF FLIGHT EMERGENCY MESSAGE IMMEDIATE GROUNDING ALL SERIES UH-1A AIRCRAFT (EXCEPT C/M MODELS) (UH-1-A4-04) TB 55-1320-242-11 CONCERNING CLEVIS OF PITCH CHANGE LINK.

1. SUMMARY - PRELIMINARY ANALYSIS OF A RECENT UH-1H HELICOPTER ACCIDENT INDICATED A FATIGUE FAILURE OF THE PITCH CHANGE LINK CLEVIS PN 204-011-136-1, FSN 5340-00-639-3934. THIS IS THE ONLY KNOWN FAILURE OF THIS PART DURING THE MANY YEARS AND MILLIONS OF OPERATIONAL FLYING HOURS OF THE UH-1 SERIES HELICOPTER. ANALYSIS REVEALED THAT THIS PART HAD BEEN REPLATED AND THE FAILURE MAY HAVE BEEN INITIATED BY HYDROGEN EMBRITTLEMENT.

2. PURPOSE OF MESSAGE - TO PERFORM AN IMMEDIATE ONE TIME VISUAL INSPECTION (ON THE HELICOPTER WITHOUT ANY DISASSEMBLY) TO DETERMINE IF INSTALLED CLEVIS’S SHOW ANY INDICATION OF HAVING BEEN REPLATED. IF ANY EVIDENCE OF REPLATING IS PRESENT, PART WILL BE IMMEDIATELY REMOVED FROM SERVICE.

3. PRIORITY CLASSIFICATION - IMMEDIATE GROUNDING UPON RECEIPT OF THIS MESSAGE THE CONDITION STATUS OF THE SUBJECT AIRCRAFT WILL BE CHANGED TO A RED /X/, UNTIL THE REQUIREMENTS OF THIS MESSAGE ARE MET.

PAGE D4 RUCIFRD6660 UNCLASS

1. INSPECTION PROCEDURE -
   A. USING A 5-10 POWER MAGNIFYING GLASS INSPECT THE EXPOSED SURFACES OF THE CLEVIS FOR EVIDENCE OF PART HAVING BEEN REPLATED. PARTS HAVE BEEN REPLATED IF THERE ARE CLEAR INDICATIONS OF PLATING MATERIAL VISIBLE IN THE PITS.

   B. PARTICULAR ATTENTION SHOULD BE GIVEN TO ANY PITTED SURFACE. IF PIT IS BROWN/RUST COLORED, PART HAS NOT BEEN REPLATED. IF PIT HAS A GOLDEN OR SILVER COLOR WITHIN THE PIT, PART HAS BEEN REPLATED.

   C. INSPECT THREADED AREA OF SHANK ABOVE JAM NUT FOR EVIDENCE OF CRACKS. IF CRACKS ARE SUSPECTED, THE CLEVIS WILL BE REMOVED AND MAGNETIC PARTICLE INSPECTED USING THE FOLLOWING PROCEDURE -
   (1) CLEAN PART THOROUGHLY, ESPECIALLY IN THREADED AREA USING WIRE BRUSH AND SOLVENT AS REQUIRED TO REMOVE ANY RESIDUE/DIRT.
   (2) PLACE PART IN COIL AND MAGNETIZE BY APPLYING 1000 - 1500 RMS AC. WHILE CURRENT IS FLOWING, DRENCH PART WITH FLUORESCENT MAGNETIC PARTICLE FLUID THAT MEETS SENSITIVITY REQUIREMENTS IAW TN 47-0103.
PAGE 02 RUCIFRD UNCLAS
RUEHC/SEC STATE WASH DC //NEA/MFO//
RUEHGO/AMEMB ROME ITALY //ODC//
RUEOPNA/DISC PHILADELPHIA PA //0EBB-JU//
RUEJHAA/CDR US REDCOM MCDOFF AFB FL //RCCS-AVN//
RUEHBT/CJUSMAK BANGKOK THAILAND
RUFJLFA/CJUSMAC MAAG MADRID SPAIN //ARMY/NAVY SEC//
RUYAAC/NEHC MELBOURNE AUSTRALIA //SOMIR ENG//
RUYWWPP/DEFAIR CANBERRA AUSTRALIA //OPEHEL-AF//
RUYEE/USDA FOREST SERVICE P.O. BOX 2417 WASH DC 20013
//COOPERATIVE FIRE PROTECTION//
ACCT DA-HCSVP
BT
UNCLAS

FINAL SECTION OF 02
(3) INSPECT USING ULTRAVIOLET LIGHT AND NOTE ANY CRACK
INDICATIONS. IF NO INDICATIONS ARE PRESENT MAGNETIZE PART AND
RETURN TO SERVICE.
D. IT IS NOT ANTICIPATED THAT ANY CRACKS WILL BE FOUND UNLESS
EVIDENCE OF REPLATING IS PRESENT. IF ANY EVIDENCE OF REPLATING AS
DESCRIBED ABOVE IS FOUND OR CRACKS ARE CONFIRMED CLEVIS SHALL
IMEDIATELY BE REMOVED FROM SERVICE.
EVIDENCE OF CORROSION/RUST, EITHER CURRENT OR
PREVIOUS, IS NOT CAUSE FOR REMOVAL. ONLY
REPLACED PARTS AS DESCRIBED ABOVE ARE
CONSIDERED POTENTIALLY DEFECTIVE. PARTS
FOUND WITH CORROSION/RUST SHOULD HAVE
CORROSION REMOVED VIA STANDARD PROCEDURES
AND CONTINUED IN SERVICE.

5. DISPOSITION INSTRUCTIONS - PARTS REJECTED BY THE INSPECTION SHALL
BE SENT TO CCAAD, SSSC-OHN, ATTH - LEROY PATTON, AUTOVON 61-4511,
CORPUS CHRISTI, TX., FOR REINSPECTION/ANALYSIS BY THE MOST
EXPEDITIOUS TRANSPORTATION AVAILABLE.

6. AFFECTED AIRCRAFT ON A RED //X// STATUS SHOULD HAVE NORMAL
MAINTENANCE CHECKS PERFORMED AS REQUIRED.

7. SUPPLY STATUS - REQUISITIONING OF REPLACEMENT CLEVIS WILL BE
ACCOMPLISHED THROUGH NORMAL SUPPLY CHANNELS. A LIMITED NUMBER OF
SPARE CLEVIS ARE CURRENTLY AVAILABLE AND ACTION IS BEING TAKEN TO
ACCELERATE DELIVERIES FROM CURRENT CONTRACTORS.

8. AIRCRAFT IN TRANSIT ARE NOT AUTHORIZED A ONE TIME FLIGHT.

9. PARTS IN STOCK WILL BE INSPECTED PRIOR TO INSTALLATION.

PAGE D4 RUCIFR&D G2 UNCLAS

10. RECORDING AND REPORTING OF INSPECTION -
A. RECORD ACCOMPLISHMENT OF YOUR INSPECTION IN ACCORDANCE WITH
THE PROCEDURE IN TM 3B-750. THE FOLLOWING FORMS ARE APPLICABLE.
(1) DA FORM 2408-13, AIRCRAFT INSPECTION AND MAINTENANCE
RECORD.
(2) DA FORM 2408-15, AIRCRAFT HISTORICAL RECORD.
(3) SAFETY OF FLIGHT FOLLOW UP REPORT ACS CSGLD 1810. MACON'S
AND OTHER ACTION ADDRESSEES, UPON COMPLETION OF THE REQUIREMENTS SET
FORTH IN THIS MESSAGE, OR NOT LATER THAN 31 JUL 84 WILL FORWARD A
MESSAGE REPORT OF ACTION ACCOMPLISHED TO COMMANDER, AVSCOM, ATTH
DRSAY-MPSD, PER AR 95-18. UNITS WILL BE REPORTED AS DELINQUENT SEVEN
DAYS AFTER TRANSMISSION OF THIS MESSAGE. THE REPORT WILL CITE THE
SAFETY OF FLIGHT MESSAGE, TB 45-1200-242-20-8, THE AIRCRAFT MISSION
DESIGN SERIES, AND SERIAL NUMBER OF THE AIRCRAFT. IF ALL REQUIRED
ACTION ARE NOT COMPLETED, THE REPORT WILL ALSO CONTAIN THE DATE BY
WHICH IT IS ESTIMATED THEY WILL BE COMPLETED. WHEN THE ESTIMATED
DATE OF COMPLETION ARRIVES, THE SERIAL NUMBERS REPORTED PREVIOUSLY AS
NOT COMPLETED WILL BE REPORTED BY MESSAGE, WITH PRESENT STATUS
AND REVISION ESTIMATED COMPLETION DATE. REVISION COMPLETION
DATES AND STATUS REPORTS WILL CONTINUE TO BE SUBMITTED UNTIL ALL

PAGE D5 RUCIFR&D G2 UNCLAS

REQUIRED ACTIONS HAVE BEEN COMPLETED AND REPORTED. FOR AIRCRAFT IN
DEPOT MAINTENANCE, AWAITING DISPOSITION OR IN STORAGE, TAKE THE
FOLLOWING ACTIONS -
(1) IMMEDIATELY UPDATE THE AIRCRAFT LOGBOOK BY ENTERING
REQUIREMENTS FOR ACCOMPLISHMENT OF THIS MESSAGE ON THE DA FORM
2408-13.
(2) REPORT BY RETURN MESSAGE BY AIRCRAFT MDS AND SERIAL
NUMBER THAT THE AIRCRAFT LOGBOOK HAS BEEN UPDATED TO INCLUDE THIS
MESSAGE REQUIREMENT.
(3) PROVIDE A POINT OF CONTACT WITH TELEPHONE NUMBER ON ALL
REPORTS.