

URGENT

*TB 1-1520-237-20-231

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

SAFETY OF FLIGHT TECHNICAL, RCS CSGLD-1-1860(R1), ALL H-60 AIRCRAFT, INSPECTION OF ALL SAS ACTUATORS

Headquarters, Department of the Army, Washington, D. C.
4 April 2001

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

1. Priority Classification. –

NOTE

IAW AR 95-1, paragraph 6-6a, MACOM Commanders may authorize temporary exception from ASAM 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. Aircraft in Use. 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: "Inspect SAS assemblies IAW TB 1-1520-237-20-231, prior to the next flight, but no later than 6 April 01." Clear the Red Horizontal Dash //--// entry when the procedures IAW paragraph 8 and 9 are completed. The affected aircraft shall be inspected as soon as practicable but no later than 6 April 01. Commanders who are unable to comply with the requirements of this message within the time frame specified will upgrade the affected aircraft status symbol to a Red //X//.

b. Aircraft in Maintenance Facility. –

(1) Aircraft in AVUM, AVIM or DEPOT – Commanders and facility managers will not issue aircraft until they are in compliance with this message

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

c. Aircraft in Transit.

(1) Surface/Air Shipment – Prior to first flight.

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

* This TB supersedes USAAMCOM Aviation Safety of Flight Message (AMSAM), UH-60-01-ASAM-06.

d. Maintenance Trainers (Category A, and B) – Comply NLT 6 April 01.

e. Components/Parts in stock at all levels (Depot and others) including War Reserves – Upon receipt of this message, Depot and Material Activity Commanders will ensure the material condition tags of all items in all condition codes listed in paragraph 6 is annotated to read: "TB 1-1520-237-20-231 Inspection of SAS actuators, not complied with".

(1) Wholesale Stock – Upon receipt of this message, Depot and Material activity Commanders will ensure all serviceable items (Condition codes //A//, //B//, //C//, //D//, and //E//) listed in paragraph 6 are placed in condition code //J// and tagged with a suspended tag/label – Material, DD Form 1575/DD Form 1575-1. Do not remove original condition tags. Report compliance with this message IAW paragraph 14d(1).

(2) Retail Stock – Report receipt of this message IAW paragraph 14b. Upon receipt of this message, Commanders and Facility Managers maintaining retail stock at installation level and below shall contact the supported aviation unit to perform the procedures required IAW paragraph 8 and 9 on suspect material. Dispose of discrepant material IAW paragraph 10. Report compliance with this message IAW paragraph 14d(2).

f. Components/Parts in Work (Depot Level and Others) – Depot and other Maintenance Activity Commanders will ensure items listed in paragraph 6 are not issued until they are in compliance with this message.

2.Task/Inspection Suspense Date. – Complete the Inspection IAW paragraph 8 prior to next flight but NLT 6 April 01 and report IAW paragraph 14b.

3.Reporting Compliance Suspense Date. – Report compliance IAW paragraph 14a NLT 28 Mar 01.

4.Summary of the Problem. –

a. Background Information – Safety cable is finished with a crimped on steel ferrule. Use of safety cable in place of safety wire on SAS actuators has occurred on some aircraft. Contact between the safety cable ferrules and actuator output connecting links may occur resulting in gouging. The gouging could lead to failure of the connection link and loss of control effectiveness.

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

c. The purpose of this TB is to – Inspect SAS actuators for installation of safety cable and possible damage.

5.End Items to be inspected. – All H-60 series aircraft.

6.Assembly Components to be Inspected.–

NOMENCLATURE	PART NUMBER	NSN
ROLL TRIM ASSEMBLY	70410-02450-045	1560-01-087-1675
ROLL TRIM ASSEMBLY	70410-02450-046	1560-01-087-1675
ROLL TRIM ASSEMBLY	70410-02450-048	1560-01-081-0590
ROLL TRIM ASSEMBLY	70410-02450-049	1560-01-128-1759
ROLL TRIM ASSEMBLY	70410-22760-050	6615-01-158-5986
PITCH TRIM ACTUATOR ASSY	70410-02760-046	1680-01-101-4097
PITCH TRIM ACTUATOR ASSY	70410-02760-047	1680-01-137-3533
YAW BOOST SERVO ASSY	70410-02910-067	1650-01-136-5496
YAW BOOST SERVO ASSY	70410-22910-045	6615-01-158-5985
FLIGHT CONTROL MODULE	70410-02650-047	1560-01-088-3224
SAS ACTUATOR	70410-02500-047/048	1560-01-083-6813
SAS ACTUATOR	70410-02500-049	1560-01-129-1256
SERVOCYLINDER (MH-60K)	70410-22910-045	6615-01-158-5985

7. Parts to be Inspected. –

NOMENCLATURE	PART NUMBER	NSN
LINK ASSEMBLY	70410-02334-044	6615-01-158-5747
LINK, SEVO FLIGHT CONTROL	70410-02334-045	6615-01-281-4589

8. Inspection Procedures.. –

- a. Perform a visual inspection of all SAS actuator assemblies and connecting links as follows –
 - (1) Inspect for installation of safety cable used as a locking device from the SAS actuator piston retainer to assembly housing.
 - (2) Inspect all connecting links for any damage (nicks, gouges, etc.).
- b. If safety cable is installed, replace link IAW paragraph 9a.
- c. If connecting link is found with any damage, complete requirements of paragraph 9b and 9c.
- d. Conduct visual inspection of SAS actuators to provide identification information and report IAW paragraph 14b.

9. Correction Procedures. –

- a. If safety cable is installed and no damage to the connecting link is found, remove and replace with safety lockwire (MS20995NC20, NSN 9525-00-618-0257) MIL-STD-33540.
- b. If connecting link is damaged, enter a RED //X// on DA Form 2408-13-1 with the following statement – “[Specify Axis] SAS Actuator output connecting link found damaged IAW inspection requirements of TB 1-1520-237-20-231”.
- c. Provide details, (Gouge depth, etc.), of the damage area to the Technical POC listed in paragraph 16a to determine disposition instructions and further actions required for the damaged link.

10. Supply/Parts and Disposition. –

- a. Parts required – Items cited in paragraph 7 may be required to replace defective item.
- b. Requisitioning instructions – Requisition replacement part(s) using normal supply procedures. All requisitions shall use project code (CC 57-59) “X1B” XRAY-ONE-BRAVO.

NOTE

Project code “X1B” is required to track and establish a data base of stock fund expenditures incurred by the field as a result of SOF actions.

- c. Bulk and Consumable Materials. – As required.
- d. Disposition – Demilitarize/Mutilate any part/component which does not meet inspection criteria IAW TM 1-1500-328-23.
- e. Disposition of Hazardous Material – IAW Environmental Protection Agency directives as implemented by your servicing environment coordinator (AR 200-1).

11. Special Tools, Jigs and Fixtures Required. – As required.**12. Application. –**

- a. Category of Maintenance – AVUM (For Inspection and cable replacement) / AVIM (For Link replacement). Aircraft downtime for cable removal will be charged to AVUM maintenance. Time to replace link will be charged to AVIM maintenance. Report aircraft non-mission capable maintenance (NMCM) while undergoing inspection and correction IAW this message.
- b. Estimated Time Required – Time listed reflects time to inspect and replace on link assembly. Up to four assemblies are installed on each aircraft.

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- (1) Inspection – Total of 1.0 man-hour using 1 person.
- (2) Correction – Total of 2.0 man-hours using 1 person.
- (3) Total of 2 hours downtime for one end item.

c. Estimated cost impact to the field –

NOMENCLATURE	P/N / NSN	QTY	COST EA	TOTAL
LINK, SERVO	70410-02334-045	1	\$145.45	\$145.45
FLIGHT CONTROL	6616-01-281-4589			

(1) Total Cost Per Aircraft (For 4)= \$581.80

d. TB / MWOs to be applied prior to or concurrently with this inspection – N/A

e. Publications which require change as a result of this inspection – N/A

13. References. –

- a. DA PAM 738-751, 15 Mar 99
- b. TM 1-1500-328-23
- c. TM 1-1520-237-23
- d. TM 1-1520-250-23
- e. TM 1-1520-269-23 (IETM)
- f. DMWR 1-1560-290, July 2000
- g. MIL STD 33540

14. Recording and Reporting Requirements. –

a. Reporting Compliance Suspense Date (Aircraft). Upon completion of inspection requirements contained in this message for all subject MDS aircraft, Commanders will forward a priority message, datafax or e-mail to Commander, AMCOM, ATTN: AMSAM-SF-A (SOF Compliance Officer), Redstone Arsenal, AL 35898-5000, IAW AR 95-1. Datafax number is DSN 897-2111 or commercial (256) 313-2111. e-mail address is "safeadm@redstone.army.mil". Inspection and reports will be completed NLT 9 April 01. The report will cite TB and message number, date of entry in DA Form 2408-13-1, the aircraft mission design series and serial numbers of aircraft in numerical order affected and completion of inspection/corrective actions.

b. Task/Inspection Reporting Suspense Date (Aircraft) – Upon completion of inspection requirements, Commanders will forward a priority message to the Logistics POC IAW paragraph 16b. The report will cite TB number, date of inspection, aircraft serial number, aircraft and component hours, component serial number, part number, cage code, and unit POC with telephone number (DSN and Commercial) and results of the inspection. Reports will be completed NLT 9 April 01.

c. Reporting Message Receipt (Spares) – N/A

d. Task/Inspection Reporting Suspense Date (Spares) –

(1) Material in Wholesale Depot storage – Depot and Material Activity Commanders will report compliance with this message to the wholesale material POC (Spares) listed in paragraph 16c NLT 6 April 01 on DD Form 1225. Provide the cost of compliance with this message to include an estimate of the cost reimbursable funding required to move serviceable items on hand listed in paragraph 6 to a work area, unpack the material, repack the material after inspection by AMCOM inspectors, and to return material to storage, as appropriate. Report, by original serviceable condition code, the quantity of material placed in condition code //J//. Report by e-mail or datafax and provide local point of contact.

(2) Material in Retail Storage – Commanders and Facility Managers will report compliance with this message to the Logistical POC in paragraph 16b NLT 6 April 01.

e. The following forms are applicable and are to be completed in accordance with DA Pam 738-751, 15 Mar 99.

NOTE

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

- (1) DA Form 2408-5-1, Equipment Modification Record (SAS Actuators).
- (2) DA Form 2408-13, Aircraft Status Information Record.
- (3) DA Form 2408-13-1, Aircraft Inspection and Maintenance Record.
- (4) DD Form 1575/DD Form 1575-1, Suspended Tag/Label - Material (Color Brown). Annotate remarks block with "Suspended IAW TB 1-1520-237-20-231."
- (5) DD Form 1577/DD Form 1577-1 Unserviceable (Condemned) (Color Red). Annotate remarks block with "Condemned IAW TB 1-1520-237-20-231 and mutilated IAW TM 1-1500-328-23."

15. Weight and Balance. - N/A.

16. Points of Contact. -

- a. Technical point of contact for this TB is Mr. Darrell Hutson, AMSAM-RD-AE-I-D-U, DSN 897-2413 or (256) 313-2413. E-mail is "darrell.hutson@redstone.army.mil". Datafax is DSN 897-3844/5206 or (256) 313-3844/5206. Alternate phone number is DSN 897-5198 or (256) 313-5198.
- b. Logistical point of contact is Mr. Joe Hoover, AMSAM-DSA-UH-L, DSN 645-7898 or (256) 955-7898, datafax is DSN 897-3778 or (256) 313-3778. E-mail is "joe.hoover@uh.redstone.army.mil"
- c. Wholesale materiel point of contact (Spares) is Mr. Dan Delao, AMSAM-MMC-VS-UB, DSN 897-1303 or (256) 313-1303, datafax is DSN 897-4769. E-mail is "daniel.delao@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) 876-5564, Datafax is DSN 746-4904. E-mail is "ann.waldeck@redstone.army.mil".
- e. Safety points of contact are -
 - (1) Primary - Mr. Randall Rushing, (SAIC), AMSAM-SF-A, DSN 788-2092 or commercial (256) 313-2092, Datafax is (256) 313-2111. E-mail is "randall.rushing@redstone.army.mil".
 - (2) Alternate - Mr. Ron Price, AMSAM-SF-A, DSN 788-8636 or (256) 842-8636, datafax is (256) 313-2111. E-mail is "ron.price@redstone.army.mil".
- f. Foreign Military Sales recipients requiring clarification of action advised by this TB should contact:
 - (1) CW5 Joseph L. Wittstrom, Security Assistance Management, AMSAM-SA, DSN 897-0410 or (256) 313-0410. E-mail is "wittstrom-jl@redstone.army.mil".
 - (2) Mr. Ronnie W. Sammons, AMSAM-SA-CS-NF, DSN 897-0408 or (256) 313-0408. Datafax is DSN 897-0411 or (256) 313-0411. E-mail "sammonssrw@redstone.army.mil".
- g. After hours contact AMCOM Command Operations Center (COC) DSN 897-2066/7 or (256) 313-2066/7. Huntsville, AL is GMT minus 6 hrs.

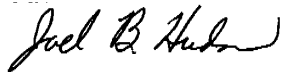
17. Reporting of Errors and Recommended Improvements. You can improve this TB. If you find any mistakes or if you know of a way to improve these procedures, please let us know. Mail you letter or DA form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Commander, US Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, AL 35898-5000. You may also submit your recommended changes by e-mail directly to ls-lp@redstone.army.mil. A reply will be furnished directly to you.

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By Order of the Secretary of the Army:

Official:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff



JOEL B. HUDSON
Administrative Assistant to the
Secretary of the Army
0109302

DISTRIBUTION:

To be distributed in accordance with Initial Distribution Number (IDN) 313975, requirements for TB1-1520-237-20-231.

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: ls-lp@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.