

TECHNICAL BULLETIN

MAINTENANCE EXPENDITURE LIMITS

FOR

ARMY AIRCRAFT

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

TECHNICAL BULLETIN

NO. 43-0002-3

HEADQUARTERS
DEPARTMENT OF THE ARMY
WASHINGTON, DC, 20 August 1998

**MAINTENANCE EXPENDITURE LIMITS
FOR ARMY AIRCRAFT**

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any errors or if you know of a way to improve the 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 direct to: Commander, U.S. Army Aviation and Missile Command, ATTN: AMSAM-MMC-LS-LP, Redstone Arsenal, AL 35898-5000. A reply will be furnished to you. You may also send in your comments electronically to our e-mail address: ls-lp@redstone.army.mil or FAX us at (256) 842-6546/DSN 788-6546.

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

		Paragraph	Page
SECTION I	Introduction		
	Purpose	1-1	1
	Scope	1-2	1
	Responsibilities	1-3	1
	Explanation of Terms	1-4	1
SECTION II	General		
	General Policy	2-1	2
SECTION III	Required Actions		
	Procedure	3-1	2
	Preparation of the Man-hour Repair Estimate	3-2	4
	Determination of repair at AVUM or AVIM Level	3-3	4
	Preparation of the Dollar Cost Estimate	3-4	5
	Request for Disposition/Waiver from AVUM/AVIM Level Units	3-5	5

*This technical bulletin supersedes TB 43-002-3, 30 August 1995.

	Paragraph	Page
	Request for Disposition/Waiver from Depot Level Activities	3-6 6
	Required Elements of a Disposition/Waiver Request	3-7 6
SECTION IV	Repair or Disposal Analysis	
	Management Level Assessment	4-1 6
	Determination to Repair, Overhaul, or Dispose of Aircraft	4-2 7
	Directed Depot Level Repair or Overhaul	4-3 7
	Directed disposal through the DRMO	4-4 7
SECTION V	References	10
APPENDIX A.	Instructions for Preparation of Estimated Repair Appraisal for AVUM/AVIM Units	A-1
APPENDIX B.	Instructions for Preparation of Estimated Repair Appraisal for Depot Level Maintenance Activities	B-1

SECTION I. INTRODUCTION

1-1. Purpose. This Technical Bulletin (TB) implements the provisions of AR 750-1 (Army Materiel Maintenance Policies) and AR 750-2 (Army Materiel Maintenance Wholesale Operations). Maintenance Expenditure Limits (MELs) have been established to ensure that only the repairs that benefit the Army are done. This TB is intended to be used for end items in Federal Supply Class (FSC) 1510 (Fixed Wing Aircraft), and FSC 1520 (Rotary Wing Aircraft). It establishes maximum direct labor man-hour repair allowances for Aviation Unit Maintenance (AVUM) and Aviation Intermediate Maintenance (AVIM) level organizations, and maximum dollar cost expenditures for depot level activities. This TB includes instructions for conducting damage assessment evaluations. Provides guidance for requesting disposition instructions or waiver authorization from AMCOM, when the damage and/or deterioration to an aircraft and on board mission related equipment, exceeds the maximum repair allowances, or needed repairs exceed the authorization prescribed in applicable -23 manual's Maintenance Allocation Chart (MAC).

1-2. Scope. This TB applies to the Active Army, Army National Guard (ARNG), U.S. Army Reserve (USAR), Department of Defense (DOD) and other Government or contract activities that operate, store, or maintain Army aircraft. The procedures are established mandatory requirements that apply to all aircraft owned by the U.S. Army.

1-3. Responsibilities. Commanders, at each management level are responsible to ensure that the procedures prescribed in this TB are complied with.

1-4. Explanation of Terms. Terms used in this TB are defined as follows:

a. Maintenance Expenditure Limit. The established maximum direct labor man-hours to repair for AVUM/AVIM activities and maximum dollar cost expenditures for depot level overhaul/repair facilities. Used with other factors, to determine if the repair of a severely damaged and/or deteriorated aircraft is cost effective and in the best interest of the Army.

b. Damage Assessment Evaluation. A thorough technical inspection of the damaged and/or deteriorated aircraft to determine the extent of damage and/or deterioration after any type of accident, or when damage or deterioration is discovered while performing scheduled or unscheduled maintenance. This evaluation includes a complete analysis of all work and materials needed to restore the aircraft to full operational status.

c. Economically Repairable. An item that is repairable within certain guidelines based on the item life expectancy, and its acquisition or replacement cost, and other relevant factors.

d. Technical Inspection. A visual, touch, and feel inspection made by a technically qualified person (normally a quality control technical inspector). These inspections are performed on aircraft and aviation associated equipment per maintenance performance standards established in the technical manuals

(TMs) that apply. Faults, deficiencies, repair parts required, nature and extent of repair, overall condition, direct labor man-hours, and labor costs needed to restore the aircraft to proper standards of serviceability are part of the Technical Inspection.

e. **Deterioration.** A gradual reduction in the structural integrity of aircraft or components, from their original state, caused by the environment and/or negligence. The most common causes of environmental deterioration are galvanic corrosion caused by dissimilar metals and moisture, oxidation (rust), elastomer degeneration caused by ozone attack, and polymer degradation caused by ultraviolet radiation. The most common cause of negligent deterioration is the failure to follow established maintenance procedures.

f. **Damaged Beyond Repair.** Aircraft damaged, deteriorated, or destroyed to the extent that no functional components, structural parts or assemblies can be economically reclaimed for further use.

g. **Replacement Cost.** The amount of funds needed to pay for the aircraft if procured on the current market. Replacement costs are formulated and updated annually by respective Army aircraft managers.

SECTION II. GENERAL

2-1. General Policy. To prove that the repair/overhaul is cost effective, the cost of repairing/overhauling an aircraft must be considered before the start of any major repair/overhaul action. The cost to repair/overhaul should not exceed the net worth of the aircraft, as compared to the cost of a new item. To prevent uneconomic repair/overhaul actions, maintenance expenditure limits have been established as identified in Tables 2-1, 3-1 and 3-2. These limits are established as the cut off point for requiring a request for disposition instructions. These limits are based on the aircraft system's value to the Army and may vary from the actual maximum repair cost authorized by management. No repair actions are authorized unless one or more of the following conditions exist:

- a. The estimated man-hours or dollar costs to repair are less than the established MEL.
- b. A waiver to exceed the MEL is granted.
- c. The item is exempt from MEL considerations.

SECTION III. REQUIRED ACTIONS

3-1. Procedure. When an aircraft is damaged as a result of accident, mishap, incident, natural disaster, or when major damage and/or deterioration is discovered, the extent of the problem must be determined. All damaged and/or deteriorated aircraft will be subjected to a damage assessment evaluation. This evaluation must establish the full extent of the damage and/or deterioration, to include all faults and deficiencies that existed prior to

the accident or discovery of the problem. Until the damage assessment evaluation is completed, and the decision as to the repair or disposition of the aircraft has been determined, the following requirements must be complied with:

a. Conduct the Damage Assessment Evaluation. The evaluation will be conducted by a-qualified aircraft technical inspector or aircraft maintenance supervisor, and documented on DA Form 2408-13-3 (Aircraft Technical Inspection Worksheet), per DA PAM 738-751. Enter all faults and damaged parts/components that need replacement in Part I, Fault Information, Faults/Remarks block of the DA Form 2408-13-3. Enter the National Stock Number (NSN)/Part Number (PN) of damaged parts/components that need replacement, and the maintenance man-hours to repair the fault and/or to replace the part/component in the corresponding Part II, Corrective Information, Action block of the DA Form 2408-13-3 per illustration in Appendix A or B (as applicable). Aircraft damaged beyond the using organization's capability will be evacuated to AVIM support activity for technical inspection and repair or reporting. Upon request, depot maintenance personnel will be furnished to assist field personnel in the performance of the technical inspection of aircraft for evacuation to a depot level maintenance activity.

b. Prepare the Estimated Repair Appraisal. The same person that performed the Damage Assessment Evaluation should prepare the appraisal in accordance with Appendix A or B. It will become an attachment to the Request for Disposition/Waiver Memorandum, along with copies of the Damage Assessment Evaluation (DA Form 2408-13-3's, Aircraft Technical Inspection Worksheet).

c. When feasible, the local AMCOM Logistical Assistance Representative (LAR) will assist in the preparation of the Estimated Repair Appraisal.

- d. Ensure all weapons are safe, and download all ammunition stores.
- e. Ensure all classified items are removed, or processed per applicable policy and regulations.
- f. Ensure all explosive devices, used in jettison devices are safe and handled per applicable policy and regulations.
- g. Ensure all actions needed to prevent additional damage or deterioration have been taken.
- h. Ensure no new repair actions will be started, and all repairs in progress are suspended.
- i. Requisitioning of repair parts is not authorized.
- j. Controlled exchange or cannibalization, of the aircraft or any of its assigned components is not authorized.

NOTE

When the aircraft is totally destroyed, the need for a Damage Assessment Evaluation is unnecessary.

However, the damage must be summarized on the Estimated Repair Appraisal, and included with the Request for Disposition Instructions.

3-2. Preparation of Man-hour Repair Estimate. A necessary part of the Damage Assessment Evaluation; is the estimate of the man-hours needed to repair the aircraft. The following factors will be considered when computing this estimate:

- a. Man-hours to replace damaged components.
- b. Man-hours to repair structural damage.
- c. Man-hours to fabricate components.
- d. Man-hours for maintenance operational checks and test flights
- e. Man-hours to complete initial, in-progress and final technical inspection.
- f. Man-hours to complete forms and records.

3-3. Determination of Repair at AVUM or AVIM Level. After completion of man-hours to repair estimate, determine if the aircraft can be restored to full operational status at AVUM or AVIM level, by answering the following questions:

1. Is the aircraft listed in Table 2-1?
2. Are the total man-hours to repair the aircraft within the maximum man-hour allowance listed in Table 2-1?
3. Are all required repairs authorized by the applicable maintenance allocation chart, and within the performance capability of the AVUM or AVIM level activity?

There is no requirement to request disposition instructions from AMCOM if all of the questions listed above can be answered "YES." Do not confuse not having to request disposition instructions, with the need to comply with the provisions of AR 385-40 (Accident Reporting and Records), or other accident, mishap, or incident reporting requirements.

TABLE 2-1. MAXIMUM MAN-HOUR ALLOWANCES
FOR AVUM/AVIM LEVEL MAINTENANCE ACTIVITIES

ATTACK HELICOPTERS		UTILITY HELICOPTERS	
AIRCRAFT MDS	MAX MAN-HOURS	AIRCRAFT MDS	MAX MAN-HOURS
AH-1E	1500	UH-1H	1100
AH-1F	1500	UH-1V	1100
AH-1P	1500	EH-60A	2000
AH-1S	1500	UH-60A	2000
AH-64A	1750	UH-60L	2000
AH-64D	1750		
MH-47E	SEE NOTE 1		
MH-60K	SEE NOTE 1		
CARGO HELICOPTERS		OBSERVATION HELICOPTERS	
AIRCRAFT MDS	MAX MAN-HOURS	AIRCRAFT MDS	MAX MAN-HOURS
CH-47D	3500	OH-6A	800
		OH-58A	800
		OH-58C	1000
		OH-58D	1000

NOTE 1: Repair estimates that exceed 3000 man-hours will be reported to Commander, TAPO, AMSAM-AR-Z-A-T, Bldg 401, Fort Eustis, VA 23604-5577, for determination of appropriate disposition.

3-4. Preparation of the Dollar Cost Estimate. When the estimated man-hours to repair exceeds the allowances listed in Table 2-1, or the aircraft is not listed in Table 2-1, an estimate of the dollar cost to repair the aircraft must be computed.

a. Estimates for Depot level activities will include the cost of all-direct labor, parts/components, and materials used for item fabrication. Army Regulation 37-1 (Army Accounting and Fund Control) or the Fed Log/Army Log, can be used to compute the cost of direct labor, parts and materials.

b. AVUM or AVIM level activities will compute only the cost of parts/components and materials used for item fabrication. Use the Fed Log/Army Log as a source document for the item price. The estimated expense for direct labor will be calculated at AMCOM. Nonstandard or experimental aircraft, with components not listed in the Fed Log/Army Log, should have cost estimates listed; but noted that the exact cost is unknown.

3-5. Request for Disposition/Waiver from AVUM/AVIM Units. A Request for Disposition or Waiver Instructions will be submitted when any of the following conditions exist:

a. The aircraft is not listed in Table 2-1.

- b. The estimated man-hours to repair the aircraft exceed the maintenance man-hour limits listed in Table 2-1.
- c. The repairs are beyond the capability or capacity of AVUM or AVIM level maintenance activities no matter what the man-hours for repair are.

3-6. Request for Disposition/Waiver from Depot Level Activities. A Request for Disposition or Waiver Instructions will be submitted when any of the following conditions exist:

- a. The estimated total cost to repair an aircraft exceeds the limits of Table 3-1 or 3-2.
- b. The aircraft is not listed in Table 3-1 or 3-2.

3-7. Required Elements of a Disposition or Waiver Request.

- a. A memorandum will be completed and used as a cover sheet when requesting disposition or waiver instructions.
- b. Submit two sets of photographs, which reveal a detailed view of airframe damage, and damaged or deteriorated parts. In the event of widespread deterioration or damage an overall view of the aircraft will be provided. The photographs should be 5 x 7 inches or larger, and will be identified to include direction of view, airframe/wing stations, and butt lines as they apply. Requests received without photographs will be returned to the sender without action.
- c. An Estimated Repair Appraisal will be prepared in duplicate per the instructions in Appendix A or B (as applicable).
- d. Two sets of copies of the DA Form 2408-13-3's (Aircraft Technical Inspection Worksheet) completed during the Damage Assessment Evaluation will be attached to the Estimated Repair Appraisal. Do not send the originals, they will be maintained by the organization that performed the Damage Assessment Evaluation.
- e. The owning unit of aircraft involved in Type Class (A, B, C, D, E) accident requiring an Accident Board/Collateral Board Investigation will submit a signed memorandum of release from the Board President.
- f. Address the requests for Disposition or Waiver Instructions to Commander, U.S. Army Aviation and Missile Command, ATTN: AMSAM-MMC-BM-DSC, Redstone Arsenal, AL, 35898-5000.

SECTION IV. REPAIR OR DISPOSAL ANALYSIS

4-1. Management Level Assessment. When a request for Disposition or Waiver Instructions, is received at AMCOM, the cover sheet, Estimated Repair Appraisal, photographs, and all other accompanying documentation, will be evaluated and coordinated with maintenance and system managers within the AMCOM aviation Program Executive Office (PEO). Additional coordination will

be conducted with Headquarters, Department of the Army (DALO-SMV) if required. Disposition instructions will be issued by AMCOM, within 20 working days, of receipt of the memorandum.

4-2. Determination to Repair, Overhaul or Dispose of Aircraft. The primary factor in deciding if the aircraft will be repaired, overhauled or disposed of is the maintenance expenditure limits, adjusted by the aircraft system manager to correctly reflect the current actual value to the Army. Factors such as equipment authorization shortages, operational requirements, fleet readiness and any changes to actual replacement value will be used in establishing the repair cost limits.

4-3. Directed Depot Level Repair or Overhaul. When any aircraft is designated for repair or overhaul at Depot level, AMCOM will provide all necessary instructions, scheduling, and coordination to ensure the aircraft arrives when scheduled, and in the proper condition. When the aircraft is scheduled for a depot level facility, the owning unit is responsible for informing AMCOM of any problems in the delivery schedule. The owning unit must ensure that the aircraft is delivered, to include the following:

- a. All items listed on DA Form 2408-17 (Aircraft Inventory Record). Documentation is required for all missing items. Uninstalled property must be properly packaged to prevent damage, and stowed in or attached to the aircraft to ensure safe arrival.
- b. All on hand uninstalled Modification Work Order (MWO) kits will accompany the aircraft.
- c. All forms and records will be shipped with the aircraft.

NOTE

Before evacuation of aircraft any classified equipment installed must be removed and returned to applicable custody or supply per existing regulations.

4-4. Directed Disposal through the Defense Reutilization and Marketing Office (DRMO). When AMCOM directs an aircraft to be processed to the DRMO, the following procedures will be complied with:

- a. If a "Save List" is issued by AMCOM, all listed items will be removed and turned-in to the supply.
- b. Components that are listed in TB 1-1500-341-01 or the Unit Level Logistics System - Aviation (ULLS-A) Component Legitimate Code File, and are not on the "Save List" must be reported as a loss to the inventory per DA PAM 738-751.

c. All items listed in TB 1-1500-341-01 or the ULLS-A Component Legitimate Code File, that are coded "RC" and not on the "Save List", will be disposed of per Section IX of TM 1-1500-328-23, prior to the part/component leaving U.S. Army control.

d. When aircraft are reclassified to Maintenance Training Airframe, or museum/static display status, detailed instructions on how the aircraft should be processed and the disposition of records and data plates will be provided by the item manager.

e. Instructions for methods of disposition not listed above will be handled on case by case basis. All components listed in TB 1-1500-341-01 or ULLS-A Component Legitimate Code File that are not being returned to the supply system, must be reported as a loss to the inventory per DA PAM 738-751, and all applicable instructions listed in TM 1-1500-328-23 must be complied with.

f. When an aircraft item is processed to DRMO, it leaves Army control. Therefore, all requirements of this TB, DA Pamphlet 738-751, and TM 1-1500-328-23 must be complied with prior to delivering the aircraft to the DRMO.

<p align="center"><i>TABLE 3-1. MAXIMUM DOLLAR EXPENDITURE LIMITS FOR DEPOT MAINTENANCE ACTIVITIES FIXED WING AIRCRAFT (FSC 1510)</i></p>		
MDS	REPLACEMENT COST	EXPENDITURE LIMITS
C-12C	3,764,109	CS
C-12D	3,764,109	CS
C-12F	3,764,109	CS
C-12L	3,764,109	CS
C-23B	7,860,995	CS
C-26A	4,943,686	CS
RC-12D	6,356,168	CS
RC-12G	6,356,168	CS
RC-12H	6,356,168	CS
RC-12K	6,356,168	CS
UV18A	3,413,911	CS
U-21A	2,315,475	CS
U-21D	2,315,475	CS
U-21F	2,315,475	CS
U-21G	2,315,475	CS
U-21H	2,315,475	CS
<p>“CS” MEANS THAT THE AIRCRAFT IS CONTRACTOR SUPPORTED AND MUST BE REPORTED TO AMCOM</p>		

<i>TABLE 3-2. MAXIMUM DOLLAR EXPENDITURE LIMITS FOR DEPOT LEVEL MAINTENANCE ACTIVITIES ROTARY WING AIRCRAFT (FSC 1520)</i>		
MDS	REPLACEMENT COST	EXPENDITURE LIMITS
AH-1E	4,221,137	DA
AH-1F	6,604,397	DA
AH-1P	3,653,160	DA
AH-64A	15,500,000	DA
AH-64D	25,000,000	DA
CH-47D	26,500,000	17,225,000
MH-74E	62,400,000	SEE NOTE 2
OH-6A	650,000	SEE NOTE 1
OH-58A	850,000	552,500
OH-58C	950,000	617,000
OH-58D	6,250,000	4,062,500
UH-1H	922,704	600,000
UH-1V	948,158	616,300
EH-60A	11,204,000	DA
MH-60K	23,200,000	SEE NOTE 2
UH-60A	6,600,000	4,290,000
UH-60L	7,013,000	5,558,450
AIRCRAFT CODED "DA" ARE CONTROLLED BY HQ DA AND MUST BE REPORTED TO AMCOM		

NOTE 1: The OH-6A helicopter is in the process of being phased out of service; therefore, all major damage or deterioration must be reported per paragraph 3-7, prior to the start of any repairs.

NOTE 2: Standard maximum repair allowances are not applicable to MH-47E and MH-60K helicopters. Disposition of aircraft damaged beyond 65% of the replacement cost shall be at the discretion of the Commander, Special Operations Command.

SECTION V. REFERENCES

AR 37-1

Army Accounting and Fund Control (Cited in para 3-4)

AR 385-40

Accident Reporting and Records (Cited in para 3-3)

AR 750-1

Army Materiel Maintenance Policies (Cited in para 1-1)

AR 750-2

Army Materiel Maintenance wholesale Operations (Cited in para 1-1)

AMC-R 750-51

Maintenance of Supplies and Equipment (Cited in para 1-1)

DA Pamphlet 738-751

Functional Users Manual for The Army Maintenance Management System-Aviation (TAMMS-A)
(Cited in paras 2-1 and 3-3)

TB 1-1500-341-01

Aircraft Requiring Maintenance Management and Historical Data Reports (Cited in para 3-3)

TM 1-1500-328-23

Aeronautical Equipment Maintenance Management Policies and Procedures (Cited in para 3-3)

APPENDIX A

INSTRUCTIONS FOR PREPARATION OF ESTIMATED
REPAIR APPRAISAL FOR AVUM/AVIM UNITS

Preparation instructions for the Estimated Repair Appraisal.

- a. **HEADER.** Enter "AVUM/AVIM ESTIMATED REPAIR APPRAISAL."
- b. **FROM.** Enter the organization and address of the activity performing the Damage/Deterioration Assessment Evaluation.
- c. **TYPE AIRCRAFT AND MDS.** Enter the type of aircraft and its mission, design, series (MDS).
- d. **AIRCRAFT S/N.** Enter the aircraft serial number.
- e. **DATE.** Enter the date the appraisal was prepared.
- f. **TYPE OF INSPECTION.** Enter "TB 43-0002-3/TECHNICAL INSPECTION."
- g. **THE ESTIMATED TOTAL DIRECT MAN-HOURS TO REPAIR.** Enter the estimated total direct man-hours for the repair (this number includes man-hours to complete forms, records, and to repair/prepare aircraft for shipment to include, disassembly, preservation, packing, and crating).
- h. **AIRCRAFT DATE OF MANUFACTURE.** Enter the date the aircraft was manufactured (stamped on the aircraft data plate).
- i. **DATE OF LAST ACE EVALUATION.** Enter the date and location of the last Aircraft Condition Evaluation (obtained from the aircraft DA Form 2408-15/2408-15-E, enter N/A if the aircraft has never been evaluated).
- j. **TIME SINCE NEW.** Enter the total aircraft hours (obtained from the current DA Form 2408-13/2408-13-E).
- k. **DATE OF LAST OVERHAUL.** Enter the date and aircraft hours when the aircraft last underwent depot overhaul (obtained from the aircraft DA Form 2408-15/2408-15-E, enter N/A if the aircraft has never been overhauled).
- l. **OUTSTANDING MWO's.** List all applicable modifications that have not been accomplished (obtained from the aircraft DA Form 2408-5/2408-5-E).
- m. **TBO OR RETIREMENT ITEMS.** List all items (nomenclature, NSN, and cost) that will be due time change (TBO or RC) within 150 flying hours (obtained from the DA Form 2408-16/2408-16-E).
- n. **DAMAGED PARTS/COMPONENTS.** List all damaged parts/components by quantity, nomenclature, NSN/PN, and status (R = repairable, O = overhaul, D = damaged beyond repair).

o. **DAMAGED STRUCTURAL MEMBERS.** List all damaged structural members by quantity, nomenclature, and NSN/PN or location (if the item does not have a NSN/PN, enter its location using station, butt line and water line numbers).

p. **PREPARATION FOR SHIPMENT.** Enter the estimated direct man-hours that would be needed to prepare the aircraft for shipment.

q. **CONDITION SUMMARY.** Enter a statement as to the capability of the owning unit and/or supporting unit to repair the aircraft at AVUM/AVIM level, or whether it should be evacuated to a depot level facility, or sent to DRMO.

r. **PERSON PERFORMING THE DAMAGED ASSESSMENT EVALUATION.** Enter the name, grade, phone number (DSN/Commercial), and signature of the person performing the damage assessment evaluation.

s. **MAINTENANCE OFFICER.** Enter the name, grade, and signature of the maintenance officer or authorized representative.

AVUM/AVIM ESTIMATED REPAIR APPRAISAL

FROM: 117TH AVN Co., Ft. Eustis, Va. 23604.

TYPE AIRCRAFT AND MDS: Helicopter, OH-58C

AIRCRAFT S/N: 70-15874

DATE: 06 MAR 98

TYPE OF INSPECTION: TB 43-0002-3/Technical Inspection

ESTIMATED TOTAL MAN-HOURS TO REPAIR: 600 man-hours

AIRCRAFT DATE OF MANUFACTURE: August 1969

DATE OF LAST ACE EVALUATION: 10 Sep 93

TIME SINCE NEW: 1933 hours

DATE OF LAST OVERHAUL: 01 Aug 93, at 1520.6 A/C hours

OUTSTANDING MWO'S:

1. 55-1520-228-xxx/x1
2. 55-1520-228-xxx/x2

TBO/RETIREMENT ITEMS:

	NOMENCLATURE	NSN/PN	COST
1.	Swashplate & Support Assy	1615-00-178-9241	5562.00
2.	Main Transmission	1615-00-034-0405	63523.00

DAMAGED PARTS/COMPONENTS:

	QTY	NOMENCLATURE	NSN/PN	STATUS
1.	1	T/R Blade Assy	1615-01-214-0201	D
2.	1	T/R Gear Box	1615-00-432-2492	R

DAMAGED STRUCTURAL MEMBERS:

	QTY	NOMENCLATURE	NSN/PN
1.	1	Stabilizer Vertical Fin	206-022-113-1
2.	1	Shell Assy Cabin Roof	206-032-201-9

PREPARATION FOR SHIPMENT: 48 man-hours

*Figure A-1.
Illustration of Estimated Repair Appraisal for reporting excess
man-hour requirement from AVUM/AVIM level activities.
(Page 1)*

AVUM/AVIM ESTIMATED REPAIR APPRAISAL (Continuation)

CONDITION SUMMARY: This aircraft sustained considerable damage as a result of T/R contacting trees during hover causing loss of control which resulted in a hard landing and roll over in wooded terrain. The airframe damage sustained is beyond the capability of the owing unit and supporting AVIM to repair. Recommend aircraft be evacuated to depot facility for repair or overhaul.

Joan P. Jones
JOAN P. JONES SSG
DSN 927-1234

Steven K. Smith
STEVEN K. SMITH CPT

Figure A-1.
Illustration of Estimated Repair Appraisal for reporting excess
man-hour requirement from AVUM/AVIM level activities.
(Page 2)

AIRCRAFT TECHNICAL INSPECTION WORKSHEET												
For use of this form, see DA PAM 738-751; the proponent agency is DCSLOG												
1. ORGANIZATION 173 AVN CO FT EUSTIS VA 23604				2. MODEL OH-58C			3. SERIAL NUMBER 70-15874			4. TYPE INSPECTION TI TB 43-0002-3		
PART I - FAULT INFORMATION						PART II - CORRECTION INFORMATION						
STATUS	SYS	DATE	NO	TIME	PID	DATE	TIME	ACFT HRS				
X	A	13APR95		0900	AA1234	ROUNDS	ACTION CODE	WUC				
FAULTS/REMARKS T/R GEAR BOX CRACKED						ACTION NSN 1615-00-432-2492 MMH 15.0						
												PID
ACFT HRS	1933	WHEN DISC	O	HOW REC	G	MAL EFF	8					
DELAY			WUC			06G01			TI MANHOURS			
STATUS	SYS	DATE	NO	TIME	PID	DATE	TIME	ACFT HRS				
X	A	13APR95		0903	AA1234	ROUNDS	ACTION CODE	WUC				
FAULTS/REMARKS T/R BLADE DAMAGED						ACTION NSN 1615-01-214-0201 MMH 3.0						
												PID
ACFT HRS		WHEN DISC		HOW REC		MAL EFF						
DELAY			WUC						TI MANHOURS			
STATUS	SYS	DATE	NO	TIME	PID	DATE	TIME	ACFT HRS				
						ROUNDS	ACTION CODE	WUC				
FAULTS/REMARKS						ACTION						
												PID
DELAY			WUC						TI MANHOURS			

FOD REMINDER: Check work area for tools and parts after completion of maintenance and inspection.

DA FORM 2408-13-3, OCT 97

DA FORM 2408-13-3, NOV 91, MAY BE USED

Figure A-2.

Preparation of 2408-13-3 as enclosure to request for disposition or waiver memorandum AVIM/AVUM level maintenance.

APPENDIX B

INSTRUCTIONS FOR PREPARATION OF ESTIMATED REPAIR APPRAISAL
FOR DEPOT LEVEL MAINTENANCE ACTIVITIES

Preparation instructions for the Estimated Repair Appraisal.

- a. **HEADER.** Enter " DEPOT LEVEL ESTIMATED REPAIR APPRAISAL."
- b. **FROM.** Enter the organization and address of the activity performing the Damage/Deterioration Assessment Evaluation.
- c. **TYPE AIRCRAFT AND MDS.** Enter the type of aircraft and its mission, design, series (MDS).
- d. **AIRCRAFT S/N.** Enter the aircraft serial number.
- e. **DATE.** Enter the date the appraisal was prepared.
- f. **TYPE OF INSPECTION.** Enter "TB 43-0002-3/TECHNICAL INSPECTION".
- g. **PROJECTED TOTAL LABOR COST.** Enter the estimated total man-hours needed to restore the aircraft to full operational status (hourly labor rate multiplied by the number of hours needed to repair the aircraft).
- h. **COST OF EXPENDABLE MATERIAL.** Enter the estimated cost of expendable items and materials needed for fabrication.
- i. **AIRCRAFT DATE OF MANUFACTURE.** Enter the date the aircraft was manufactured (stamped on the aircraft data plate).
- j. **DATE TRANSFERRED TO DEPOT.** Enter the date the aircraft arrived at the depot facility.
- k. **TIME SINCE NEW.** Enter the total aircraft hours (obtained from the current DA Form 2408-13/2408-13-E).
- l. **DATE OF LAST OVERHAUL.** Enter the date and aircraft hours when the aircraft last underwent depot overhaul (obtained from the aircraft DA Form 2408-15/2408-15-E, enter N/A if the aircraft has never been overhauled).
- m. **OUTSTANDING MWO's.** List all applicable modifications that have not been accomplished (obtained from the aircraft DA Form 2408-5/2408-5-E).
- n. **TBO OR RETIREMENT ITEMS.** List all items (nomenclature, NSN, and cost) that will be due time change (TBO or RC) within 150 flying hours (obtained from the DA Form 2408-16/2408-16-E).
- o. **DAMAGED PARTS/COMPONENTS.** List all damaged parts/components by quantity, nomenclature, NSN/PN, and status (R = repairable, O = overhaul, D = damaged beyond repair).

p. **DAMAGED STRUCTURAL MEMBERS.** List all damaged structural members by quantity, nomenclature, NSN/PN or location, and cost (if the item does not have a NSN/PN, enter its location using station, butt line and water line numbers).

q. **PERSON PERFORMING THE DAMAGED ASSESSMENT EVALUATION.** Enter the name, grade, phone number (DSN/Commercial), and signature of the person performing the damage assessment evaluation.

r. **MAINTENANCE OFFICER.** Enter the name, grade, and signature of the maintenance officer or authorized representative.

DEPOT LEVEL ESTIMATED REPAIR APPRAISAL.

FROM: Commander, CCAD, Corpus Christi, TX 78919.

TYPE AIRCRAFT AND MDS: Helicopter, OH-58C

AIRCRAFT S/N: 70-15874

DATE: 31 JAN 94

TYPE OF INSPECTION: TB 43-0002-3/Technical Inspection

PROJECTED TOTAL LABOR COST: \$35.00 x 3,100 equals \$108,500

COST OF EXPENDABLE MATERIAL: \$9,750

AIRCRAFT DATE OF MANUFACTURE: July 1970

DATE TRANSFERRED TO DEPOT: 4 Jan 94

TIME SINCE NEW: 1933 hours

DATE OF LAST OVERHAUL: 2 May 83, at 1538 A/C hours

OUTSTANDING MWO'S:

1. 55-1520-228-xxx/x1
2. 55-1520-228-xxx/x2

TBO/RETIREMENT ITEMS:

	NOMENCLATURE	NSN/PN	COST
1.	Swashplate & Support Assy	1615-00-178-9241	5562.00
2.	Main Transmission	1615-00-034-0405	63523.00

DAMAGED PARTS/COMPONENTS:

	QTY	NOMENCLATURE	NSN/PN	STATUS
1.	2	T/R Blade Assy	1615-01-214-0201	D
2.	1	T/R Gear Box	1615-00-432-2492	R

DAMAGED STRUCTURAL MEMBERS:

	QTY	NOMENCLATURE	NSN/PN	COST
1.	1	Stabilizer Vertical Fin	206-022-113-1	7121.00
2.	1	Shell Assy Cabin Roof	206-032-201-9	2626.00

David A. Johnson
 DAVID A. JOHNSON, Civ.
 DSN 861-9999

John Q. Taylor
 John Q. Taylor, LTC

*Figure B-1.
 Illustration of Estimated Repair Appraisal for reporting excess
 man-hour requirement from Depot level activities.*

AIRCRAFT TECHNICAL INSPECTION WORKSHEET													
For use of this form, see DA PAM 738-751; the proponent agency is DCSLOG													
1. ORGANIZATION CCAD CORPUS CHRISTI TX 78419-6195				2. MODEL 0H-58C			3. SERIAL NUMBER 70-15874			4. TYPE INSPECTION TI TB 43-0002-3			
PART I - FAULT INFORMATION						PART II - CORRECTION INFORMATION							
STATUS	SYS	DATE	NO	TIME	PID	DATE	TIME	ACFT HRS					
X	A	13APR95		0900	AA1234	ROUNDS	ACTION CODE	WUC					
FAULTS/REMARKS T/R GEAR BOX CRACKED						ACTION NSN 1615-00-432-2492 MMH 15.0							
ACFT HRS		WHEN DISC		HOW REC		MAL EFF		PID	CAT	HRS	PID	CAT	HRS
1933		O		G		8							
DELAY				WUC		TI MANHOURS							
				06G01									
STATUS	SYS	DATE	NO	TIME	PID	DATE	TIME	ACFT HRS					
X	A	13APR95		0903	AA1234	ROUNDS	ACTION CODE	WUC					
FAULTS/REMARKS T/R BLADE DAMAGED						ACTION NSN 1615-01-214-0201 MMH 3.0							
ACFT HRS		WHEN DISC		HOW REC		MAL EFF		PID	CAT	HRS	PID	CAT	HRS
DELAY				WUC		TI MANHOURS							
STATUS	SYS	DATE	NO	TIME	PID	DATE	TIME	ACFT HRS					
						ROUNDS	ACTION CODE	WUC					
FAULTS/REMARKS						ACTION							
ACFT HRS		WHEN DISC		HOW REC		MAL EFF		PID	CAT	HRS	PID	CAT	HRS
DELAY				WUC		TI MANHOURS							

FOD REMINDER: Check work area for tools and parts after completion of maintenance and inspection.

DA FORM 2408-13-3, OCT 97

DA FORM 2408-13-3, NOV 91, MAY BE USED

Figure B-2.

Preparation of 2408-13-3 for damage assessment appraisal as enclosure to request for disposition or waiver request. (Depot Level)

By Order of the Secretary of the Army

By Order of the Secretary of the Army:

Official:



JOEL B. HUDSON
*Administrative Assistant to the
Secretary of the Army*
05009

DENNIS J. REIMER
*General, United States Army
Chief of Staff*

DISTRIBUTION:

To be distributed in accordance with Initial Distribution No. (IDN) 342395, requirements for TB 43-0002-3.

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

SOMETHING WRONG WITH THIS PUBLICATION?



THEN...JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

Commander
Stateside Army Depot
ATTN: AMSTA-US
Stateside, N.J. 07703

DATE SENT

10 July 1975

PUBLICATION NUMBER

TM 11-5840-340-12

PUBLICATION DATE

23 Jan 74

PUBLICATION TITLE

Radar Set AN/PRC-76

BE EXACT... PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO
2-25	2-28		
3-10	3-3		3-1
5-6	5-8		
		F03	

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

Recommend that the installator antenna alignment procedure be changed throughout to specify a 2° IFF antenna lag rather than a 1°.

REASON: Experience has shown that with only a 1° lag the antenna servo system is too sensitive to wind gusting in excess of 25 knots, and has a tendency to rapidly accelerate and decelerate as it hunts, causing strain to the drive train. Hunting is minimized by adjusting the lag to 2° without degradation of operation.

Item 5, Function column. Change "2 db" to "3db."

REASON: The adjustment procedure of the TRANS POWER FAULT indicator calls for a 3 db (500 watts) adjustment to light the TRANS POWER FAULT indicator.

Add new step f.1 to read, "Replace cover plate removed in step e.1. above."

REASON: To replace the cover plate.

Zone C 3. On J1-2, change "+24 VDC" to "+5 VDC."

REASON: This is the output line of the 5 VDC power supply. +24 VDC is the input voltage.

TEAR ALONG PERFORATED LINE

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SSG I. M. DeSpirito 999-1776

SIGN HERE:

SSG I. M. DeSpirito

DA FORM 2028-2
1 JUL 79

PREVIOUS EDITIONS ARE OBSOLETE

DRSTS-M Overprint 2, 1 NOV 80.

PS... IF YOUR OFFICE WANTS TO KNOW ABOUT YOUR RECOMMENDATIONS MAKE A CARBON COPY OF THIS AND GIVE IT TO YOUR HEADQUARTERS

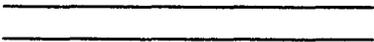
REVERSE OF DA FORM 2028-2

FILL IN YOUR
UNIT'S ADDRESS



FOLD BACK

DEPARTMENT OF THE ARMY



OFFICIAL BUSINESS

Commander
U.S. Army Aviation and Missile Command
ATTN: AMSAM-MMC-LS-LP
Redstone Arsenal, Al 35898-5230

TEAR ALONG PERFORATED LINE

The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 Meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigram = 0.35 ounce
 1 dekagram = 10 Grams = .35 ounce
 1 hectogram = 10 dekagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fluid ounce
 1 deciliter = 10 centiliters = 3.38 fluid ounces
 1 liter = 10 deciliters = 33.81 fluid ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 27.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq centimeters = 125.5 sq. inches
 1 sq. meter (centare) = 100 sq decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 1,076.4 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. decimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	newton-meters	1.356	metric tons	short tons	1.102
pounds-inches	newton-meters	.11296			

Temperature (Exact)

°F Fahrenheit Temperature 5/9 (after subtracting 32) Celsius Temperature °C

