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Logistics Management

# **Functional Users Manual for the Army Maintenance Management System– Aviation**

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**UNCLASSIFIED**

# ***SUMMARY of CHANGE***

DA PAM 738-751

Functional Users Manual for the Army Maintenance Management System-  
Aviation

This major revision, dated 28 February 2014-

- o Adds an Aircraft Transfer Decision Table (chap 1).
- o Converts the removal and/or achievement codes back to failure codes (chap 1).
- o Adds procedures for the Unit Level Logistics System-Aviation (chaps 1, 2, 3, and 4).
- o Introduces DA Form 2408-14-1 (Uncorrected Fault Record Aircraft) (chap 2). DA Form 2408-14 (Uncorrected Fault Record) will no longer be used for aviation equipment.
- o Incorporates Standard Army Maintenance System procedures (chap 3).
- o Adds procedures for documentation of component repair at Aviation Intermediate Maintenance and depot levels of maintenance (chap 3).
- o Adds phase maintenance and periodic inspection documentation procedures (chap 3).
- o Adds information on migrating automated DA Form 2410 (Component Removal and Repair/Overhaul Record) data (chap 3).
- o Changes DA Form 2410 and instructions. Therefore, the U.S. Army Aviation and Missile Command's Guide/Workbook for the DA Form 2410, The Army Maintenance Management System-Aviation, October 1992, is obsolete (chap 3).
- o Adds instructions for DA Form 2408-16 (Aircraft Component Historical Record) and DA Form 2410 to track aircraft survivability equipment electronic countermeasures and avionics systems Line Replaceable Units that have software installed (chaps 3 and 4).
- o Incorporates the forms and records instructions published in TB 1-2840-248-20-2 (One Time Inspection and Conversion of Forms and Records for T700, 701, and 701C Series Gas Turbine Engines) (chaps 3 and 4).
- o Incorporates the forms and records instructions published in TB 1-2840-214-20-1 (One Time Inspection of Forms and Records for H-60 Series Aircraft Auxiliary Power Units) (chaps 3 and 4).
- o Adds DA Form 2408-33-R (Meter Tracked Component Record) and instructions for tracking countermeasure set, AN/ALQ-144A (chap 4).

- o Incorporates the forms and records instructions published in TB 55-1520-238-23 (AH-64A Components Requiring Maintenance Management and Historical Data) (chap 4).
- o Adds Aviation Life Support Equipment and Aviation Night Vision Goggle recordkeeping procedures (chap 5).
- o Discontinues use of DA Form 2409 (Equipment Maintenance Log Consolidated) for aircraft and aviation associated equipment use.



## Logistics Management

# Functional Users Manual for the Army Maintenance Management System– Aviation

By Order of the Secretary of the Army:

**RAYMOND T. ODIERNO**  
*General, United States Army*  
*Chief of Staff*

Official:



**GERALD B. O'KEEFE**  
*Administrative Assistant to the*  
*Secretary of the Army*

**History.** This publication is a major revision.

**Summary.** This pamphlet covers the preparation and management of forms and records required to manage maintenance, control the use, and report warranty actions and deficiencies on Army aircraft, unmanned aerial systems, and unmanned aerial systems ground-control equipment, and aviation associated equipment.

**Applicability.** This pamphlet applies to the Active Army, the Army National Guard/Army National Guard of the United

States, and the U.S. Army Reserve, unless otherwise stated. It also applies to Department of Defense, sustainment facilities (depots), and other Government agencies that operate and maintain Army aircraft, unmanned aviation systems, and associated equipment. This pamphlet also applies to all aircraft, unmanned aviation systems, and aviation associated equipment and parts operated, maintained, and stored by Department of Defense contract support maintenance activities. During mobilization, chapters and policies contained in this regulation may be modified by the proponent.

**Proponent and exception authority.** The proponent of this pamphlet is the Deputy Chief of Staff, G–4. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits. All waiver requests shall be endorsed by the commander or

senior leader of the requesting activity and forwarded through higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

**Suggested improvements.** Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank forms) directly to the Commander, U.S. Army Aviation and Missile Command (AMSAM–MSI–L), Redstone Arsenal, AL 35898–5000 or e-mail to [usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil).

**Distribution.** This publication is available in electronic media only and is intended for command levels C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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### Glossary



## Chapter 1 Introduction

### 1–1. Purpose

The purpose of this publication is provide instruction, direction and guidance for use, preparation, and disposition of electronic aviation data, and/or paper aviation forms and records.

### 1–2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

### 1–3. Explanation of abbreviations and terms

Abbreviation and special terms are listed in the glossary.

### 1–4. Types of records and reports

*a. Aircraft logbook forms and records.* Units and activities shall file and/or store aircraft logbook forms and records (see chap 2) in the aircraft logbook binder (national stock number (NSN) 7510-00-889-3494) (or equivalent) or the approved Army Logistics Information System (LIS) (formerly known as Standard Army Management Information System), Aviation LIS. The logbook consists of the following records and/or data:

- (1) Aircraft and/or aircrew flight information and servicing data.
- (2) Engine operational data.
- (3) Weapon(s) firing data.
- (4) Scheduled maintenance inspection next due date.
- (5) Special inspection or item replacement next due date and/or hours.
- (6) Faults and correcting information.
- (7) Aircraft and mission-related equipment condition status.
- (8) Related maintenance actions.
- (9) Uncorrected or deferred faults or maintenance.
- (10) Rounds fired from weapon systems.
- (11) Cumulative rounds fired from all current and prior weapons installed on the aircraft.
- (12) Identification plates and/or fuel cards for refueling aircraft away from home station.

*b. Historical records.* Historical records are permanent files and/or data consisting of aircraft historical data, time change (TC), time between overhaul (TBO), retirement change (RC)), and condition change (CC) components (see chaps 4 and 5). Historical records are not part of the aircraft logbook. They are normally maintained in production control and quality control. Units and activities shall keep historical files and/or data records for—

- (1) All MWOs, RSNs, AWRs, SOF messages, ASAMs, AMAMs, and safety of use messages on aircraft, UAS, selected aviation components, and other aviation equipment.
- (2) Significant events relevant to the aircraft, Unmanned Aircraft System (UAS), and components.
- (3) Results of turbine engine analysis checks, engine performance checks, and/or maximum power checks.
- (4) Receipt, transfer, and disposal of aviation equipment.
- (5) Current software version installed in the aircraft data systems and/or survivability electronic countermeasures and avionics systems line replaceable units (LRUs).
- (6) Aircraft engines and auxiliary power unit (APU) operating hours, history recorder/counter readings, and all significant engine events.

*c. Deficiency reports.* Various deficiency reports recommend corrections, changes and improvements to aircraft, associated equipment, mission equipment, and maintenance procedures contained in technical publications (see chaps 3 and 5).

### 1–5. Tables and appendixes

*a.* Information in tables 1–1 through 1–21 applies to aviation equipment, and UAS, forms, and records in this pamphlet. These tables contain the codes used on forms and records throughout this pamphlet. Units and activities shall use these tables for completing operational, maintenance, and historical forms described in the chapters 2–5.

*b.* Information in appendixes applies to aviation equipment and UAS data/forms and records described in chapters 2–5.

### 1–6. General instructions

*a.* Army aviation records, information and reports require unique management to support the safety and airworthiness of aircraft, UA and all associated subsystems and components. To accomplish this goal the specifications outlined throughout this pamphlet will be adhered to. Minimizing the use of paper and time to prepare aircraft logbooks for next day missions is an ongoing effort. This pamphlet covers procedures for filling out forms and records manually or

utilizing the current aviation LIS to help accomplish this effort. Aviation units and activities, to include DOD contractors providing aircraft, UAS subsystems and new, overhauled, recapped, or rebuilt reportable components and modules are required to use the current aviation LIS which authorizes them to populate use specific automated forms and records. All other aviation units and activities, including DOD contract support maintenance activities not fielded an aviation LIS, shall use hard copy (paper). DA Forms and records as prescribed in this pamphlet. The instructions for forms and records also apply to aviation LIS generated forms and records, unless specifically stated otherwise. Unless specific instructions state otherwise, the following shall apply:

(1) Official forms shall not be changed or altered. Locally devised forms or records may not be used as substitutes for the forms and records in this pamphlet. When forms do not meet particular requirements, a written request for deviation should be submitted to the Deputy Chief of Staff, G-4 (DCS, G-4) (DALO-ORR-ER), Washington, DC 20310-0505, or U.S. Army Aviation and Missile Command (AMSAM-MSI-L), Redstone Arsenal, Huntsville, AL 35898-5000 or e-mail to [usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil).

(2) All form entries (exceptions: personal signatures, initials, and the technical inspector's (TI) stamp) shall be typed or printed.

(3) Logbook and maintenance form and record entries shall be made using black ballpoint pen, black lead pencil, or shall be electronically generated by LIS systems (see chap 2-5) (such as: the Army Publishing Directorate (APD) Forms Program).

(a) A black lead pencil shall be used to enter the total number of pages on manually maintained forms.

(b) A black ballpoint pen shall be used to manually enter status symbols on hard copy forms.

(c) Only black waterproof ink shall be used on materiel condition tags and labels for preservation purposes.

(4) Overprinting of forms and use of electronic forms are authorized when information is repeated; for example, the heading information or listing inspection items when the form/data are used for a particular purpose more than once or routinely.

(5) Recreate or regenerate manual forms and records only when the original is lost, damaged, or the information is illegible. Forms or records shall not be recreated for neatness.

(6) Historical forms will not be recreated when aircraft, aircraft subsystems, associated equipment, LRUs, or components are repaired, overhauled, recapped, or rebuilt. Forms will be updated with new data and new forms added as required. The AMCOM MCDS program and LIS systems have the capability to print copies of historical forms.

(7) New forms or records shall not be started until there is an entry; for example, a new manufactured component does not require a DA Form 2408-5-1 (Equipment Modification Record (Component)). The form will be established when something major has happened to the component; such as, a SOF, aviation safety action message (ASAM), or aviation maintenance action message (AMAM).

(8) "Not applicable," "not required," or "N/A" entries shall be left blank.

(9) All maintenance actions resulting from deficiencies, faults, failures, problems in design, operation, maintenance, manufacture, overhaul, recap/rebuild, and recommendations for improvement of aircraft and aviation-associated equipment shall be entered into the LIS System or on the manual forms or records that apply.

b. The instructions contained in this pamphlet shall take precedence when conflicts arise between related publications and this pamphlet. Units or activities discovering conflicts between related publications and this pamphlet shall prepare a DA Form 2028 (Recommended Changes to Publications and Blank Forms) AMCOM (AMSAM-MSI-L), e-mail to [usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil).

c. If a unit or activity discovers an error after sending a form to AMCOM (such as DA Form 2410 (Component Removal/Repair/Install/Gain/Loss Record) or DA Form 2408-19-3 (Engine Component Operating Hours Record), whether electronic or hard copy, the AMCOM DA Form 2410 Hotline shall be contacted at Defense switched network (DSN) 897-2410 or commercial (256) 313-2410 or 1-877-511-8139, fax DSN 897-2075 (or commercial (256) 313-2075), or e-mail ([usarmy.redstone.usamc.mbx.immc-data2410@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-data2410@mail.mil)) to have the record in the MCDS corrected.

d. First, read the policy in the text. Fill out the forms showing the aviation equipment, unit, and status. To assist in filling in the status, fault, and correcting information, see definitions of status symbols and action codes contained on DA Form 2408 (Equipment Log Assembly (Records)) in chapter 2. The policy and instructions will take precedence when conflicts exist between the form and the example.

e. If a form or record must be reconstructed, all current information from the old form shall be entered on a new form.

(1) If a form or record has a personnel identifier (PID) block and the person who originally put a PID on the form is not available (such as, permanent change of station, expiration term of service, deployed, deceased), the person reconstructing the form shall enter previously complied with (PCW) and his/her own PID (usually the Army Knowledge Online (AKO) user name or, if not assigned an AKO user name, use first name, middle initial, and last name), or LIS computer generated PID.

(2) When the information is not available for a specific block of a form, commanders or commanders designated representative shall ensure everything possible is done to retrieve the information. Do not use "UNK" and "N/A" on DA Form 2408-16 (Aircraft Component Historical Record), DA Form 2408-16-1 (History Recorder, Component,

Module Record), DA Form 2408–16–2 (Auxiliary Power Unit and Component Record), or DA Form 2410. If missing historical information is required, use the instructions in paragraph 1–13.

f. If a life cycle-managed (tracked reportable) component, LRU, or module arrives in the unit or activity without a DA Form 2410, historical records, or a materiel condition tag attached, the instructions in paragraph 1–14 shall be followed.

g. Commanders may execute disciplinary action when data/forms or records are purposely and/or intentionally lost, falsified, damaged or destroyed. .

*Note.* There is no requirement to rewrite TMs when recording related maintenance actions on forms and records. A brief description of the maintenance action performed is sufficient.

h. Recording maintenance events for readily visible assemblies, such as batteries, do not require multiple entries; make one entry on the DA Form 2408–13–1 (Aircraft Inspection and Maintenance Record) or DA Form 2408–13–3 (Aircraft Technical Inspection Worksheet). For example, record in the fault/remark block, "Battery removed," and in the corrective action block, "Reinstalled battery." Components and safeties not readily visible require a separate entry and inspection before reassembling. Components require an entry when the TM directs a specific torque value applied.

*Note.* There is no requirement to underline the torque value on the form.

i. Follow the guidelines below when entering calendar dates and clock times:

(1) Calendar date format in this pamphlet shall be in the order of day, month, year (ddmmmyyyy) for paper; Army LIS systems shall use default format. For example, record 3 Oct 06 as 03OCT2006. Julian or ordinal dates may be used on DA Form 2407 (Maintenance Request)/DA Form 2407–1 (Maintenance Request Continuation Sheet) per specific instructions on the form.

(2) Use the 24-hour clock when entering clock time format. For example, display 4 minutes after 9 o'clock AM as 0904, or 10 minutes after 1 o'clock PM as 1310.

j. When entering aircraft hours on a manual DA Form 2408-16, DA Form 2408–20 (Oil Analysis Log), or DA Form 2410, the hours may be rounded up or down to the nearest whole number. For example, 1375.4 hours rounds down to 1375 hours and 1375.5 hours rounds up to 1376 hours.

k. Abbreviations and acronyms are authorized. Use only acronyms from HQDA and/or AMCOM approved/authorized aircraft, UAS subsystems, and/or associated equipment TMs.

l. 1. The terms noun, noun abbreviation, noun nomenclature, and name refer to the same basic identification of a repair part, component, module, LRU, or end item.

m. Use only English units of measurement (see table 1–21).

n. Aircraft serial numbers shall be recorded without hyphens or dashes. Aircraft serial numbers shall contain only seven numerical characters. If the serial number contains less than seven numerical characters, add a zero "0" or zeros following the first two characters (FY procurement) of the serial number. For example, record 84–23456 as 8423456, record 85–6789 as 8506789, or record 90–123 as 9000123. Record serial numbers, UAS equipment, training devices, simulators, repair parts, components, modules, LRUs, systems, and subsystems as listed on the equipment data plate.

*Note.* Some automated systems remove dashes or leading zeros from serial numbers once they have been entered. This practice is acceptable and is not an error.

o. The PID is the minimum requirement to certify entries on all forms and records, and data entered in LIS systems governed by this pamphlet.

(1) The PID for manual forms and records will consist of a person's AKO user name; if the person is not assigned an AKO user name, use the first name, middle initial and last name.

(2) Commanders' designated representatives may use their signatures (first initial and last name) along with their AKO user name or, if not assigned an AKO user name, use the first name, middle initial and last name on paper forms and records.

p. Maintenance work hour consists of the time it takes to complete a maintenance inspection, task, action, or technical inspection, including the time required to fill out forms and records. Record these hours in the man-hour block as hours and tenths of hours (see table 1-14).

## 1–7. Roles

a. Commanders and persons in equal management positions of DOD contract support maintenance activities may appoint a designated representative for commander level entries on forms and records in their absence. Commanders shall designate representatives in writing.

b. Commanders and persons in equal management positions of DOD, contract support maintenance activities shall ensure all maintenance actions resulting from deficiencies, faults, failures, problems in design, operation, maintenance, manufacture, overhaul, recap, rebuild, and recommendations for improvement of aircraft, UAS subsystems, and aviation associated equipment are entered on the forms or records, as applicable.

c. Aircrew members, mechanics, TIs, maintenance managers, record clerks, supervisors, and commanders at all

levels of maintenance, including DOD contract support personnel and activities, are responsible for maintaining forms and records in accordance with this pamphlet.

d. Mechanics, maintenance managers, TIs, and DOD contract support personnel and activities shall use only approved TMs, electronic TMs (ETMs), interactive ETMs (IETMs), and related publications for all maintenance procedures.

e. The manufacturer of new aircraft, UAS subsystems, aircraft training devices and/or simulators, and reportable components, LRUs, or modules is responsible for completing all applicable forms, records, and supply condition tags and/or labels covered by this pamphlet (see app A).

f. Contract support maintenance activities providing logistic support to nonstandard Army aircraft may use forms and records in this pamphlet.

g. Units that have not been fielded LIS and are using the manual method of record keeping, shall maintain a list of the names and signatures of all personnel performing maintenance and of the commander's designated representatives. This information shall be maintained for 6 months after the individual leaves the unit. Units and activities shall—

(1) Safeguard all forms and records.

(2) Not change the aviation LIS master component legitimate code files (LCFs) without prior approval from AMCOM or the DCS, G-4.

(3) Maintain legible, accurate, and complete forms and records.

h. All units and activities shall establish a logbook control program.

(1) File aircraft logbooks (hard (paper) copy forms and/or laptop computer) in the flight platoon, unit, or activity maintenance office when aircraft are not flying (see chap 2).

(2) Place responsibility for maintaining and filing the logbook with the assigned crew chief or mechanic.

## 1-8. How to use status symbols

a. Status symbols shown on forms and records indicate the seriousness of faults, failures, deficiencies, related maintenance actions, and known or potential safety hazards to include those imposed in a nuclear, biological or chemical (NBC) environment. They show the condition, readiness operation, service, inspection, and maintenance actions of aircraft, aircraft system/subsystems, UAS subsystems, or associated equipment. There are eight status symbols used. Five show the condition of the aircraft, system, or associated equipment: Grounding X, circled X, horizontal dash ( - ), diagonal ( / ) and last name initial. Three status symbols are used for contaminated aircraft, and UAS: Circled N, circled B, and circled C Units and activities shall enter status symbols as applicable regardless of the insignificance of the fault or the time required for the correction.

(1) *Grounding X status symbol.* Grounding X indicates a fault, deficiency, or condition (actual or potential) exists making the aircraft, system, and/or subsystem or associated equipment unsafe to operate and/or fly. The following policy applies:

(a) Operating aircraft on the ground is authorized when the status symbol is a grounding X to facilitate troubleshooting and maintenance with the stipulation that the grounding X condition does not affect safe operation.

(b) Assign the status symbol grounding X to a fault in a system or subsystem (such as the Hellfire missile system) only when the system or subsystem is disassembled and/or removed, resulting in the current system or subsystem configuration or condition unsafe for ground or flight operations.

*Note.* If a system or subsystem (such as the Hellfire missile system) does not affect safe flight or ground operations in an inoperable and/or disabled condition, enter a circled X status symbol restricting that system and/or subsystem from use.

(c) When a grounding X status condition is discovered and the same condition could potentially occur in other aircraft, the Commander or designated representative shall immediately inspect other aircraft of the same mission design series (MDS) for the unsafe condition. Commanders or designated representatives shall enter the grounding X status symbol on other aircraft found with or potentially having the unsafe condition. Units and activities shall prepare and submit a Category I SF 368 on the unsafe condition when it meets the rules in paragraph 3-2.

(d) When an installed system that is necessary to execute an underlined, immediate step, emergency procedure in the aircraft's operator's manual is not completely functional or a condition exists that may prevent it from complete functionality. An example would include a fault stating "wheel brakes soft and/or spongy." Wheel brakes are necessary to execute the underlined, immediate step, emergency procedure for tail rotor malfunctions requiring a run on landing to enable a safe recovery of the aircraft. Therefore the aircraft shall be grounded until the brakes are repaired to a completely functional state.

(2) *Circled X status symbol.* A circled X indicates a fault, deficiency, or condition (actual or potential) exists allowing the aircraft to fly under specific restrictions or limitations as specified or directed by higher authority, or as directed locally, until corrected. A circled X status symbol applies to the following situations:

(a) When a condition exists on the aircraft, system, or aircraft equipment that restricts or limits operation to a specific procedure, component, system or subsystem used during maintenance, ground, ground taxi, hovering flight or flight operations, but allows for safe operation when disabled. For example, an aircraft with an inoperable landing light would have a status of circled X restricting the aircraft from night flight. If any restricting condition could potentially

occur on other aircraft, the commander or designated representative shall inspect those aircraft. Status symbols for affected aircraft shall change as required. The person finding the fault, deficiency, or condition shall also prepare and submit a Category I deficiency report per paragraph 3–2, as required.

(b) When a SOF, ASAM, and/or AMAM message, MWO, RSN, AWR, or other directive requires operating aircraft within the restrictions and/or limits stated in the message or directive, for example, airspeed limitations, operating procedures, or weapon system duty cycles.

(3) *Horizontal dash ( - ) status symbol.* A horizontal dash ( - ) symbol indicates that the condition of an aircraft, system, or aviation equipment is unknown. This status symbol indicates a dangerous condition potentially exists and corrective action is required as soon as possible. A horizontal dash symbol applies to the following situations:

(a) When a scheduled maintenance inspection, special inspection, component or module replacement, maintenance operational check (MOC) is required or desired, a routine MWO is overdue application, a routine technical bulletin or maintenance mandatory or operational ASAM or AMAM is received, or a maintenance test flight (MTF)/Functional Check Flight (FCF) is required or desired.

(b) When maintenance actions listed above are due or started early.

*Note.* Enter a dash ( - ) when the inspection is due. The inspection is due when the crew operating the aircraft completes their briefed mission and current aircraft hours are at the inspection interval, but not past the allowed inspection window outlined in TM 1–1500–328–23 or the end of the duty day, whichever comes first. The window in TM 1–1500–328–23 only applies when the commander extends the briefed flight crew’s mission and that briefed crew began the mission prior to the inspection interval. Once that crew completes the briefed mission or end of the mission day, the unit and/or activity shall complete the inspection prior to commencing aircraft flight operations. Do not begin aircraft flight operations when the current hours are at or past the inspection due interval. Commanders should consider operating aircraft with an inspection due as a high-risk mission. Commanders are responsible for adhering to all inspection intervals.

(4) *Diagonal ( / ) status symbol.* The diagonal status symbol indicates a known fault or deficiency exists in materiel installed on aircraft, system, or aviation equipment. It also shows that an unsatisfactory condition exists on aircraft, system, or associated equipment that is not urgent or dangerous enough to ground the aircraft or stop the use of the aircraft, system, or associated equipment. The diagonal is used in the following ways:

(a) To describe the condition of the aircraft, system, or associated equipment on the forms that apply (see chap 2).

(b) When a SOF, ASAM, or AMAM has been received that requires an inspection of a component and the inspection shows that the component must be replaced by a specified date then the new write-up showing the removal required by date shall have a diagonal status symbol.

(5) *Circled N, circled B, and circled C status symbols.* A circled N, circled B, and circled C indicate the aircraft was flown, operated, or stored in a NBC environment and is potentially hazardous to personnel.

*Note.* Decontaminate aircraft per this publication in appendix B, FM 3–11.5, and appropriate TMs.

b. Condition status symbols used in this pamphlet serve two purposes:

(1) Indicate the condition and status of manned and unmanned aircraft, systems, subsystems and associated equipment aboard the aircraft.

(2) Establish a standard way of identifying the seriousness of faults and conditions of manned and unmanned aircraft, systems, subsystems and associated equipment.

*Note.* Initialed status symbol shall appear only on manually entered paper forms (see chaps 2, 3, 5), not applicable to status symbols in automated systems.

c. Never erase or alter a status symbol once it is entered. Specific uses of status symbols are contained in the instructions for filling out the various aircraft forms and records in chapters 2 through 5. A status symbol in a condition status block shows the individual’s opinion as to the seriousness of the fault, deficiency, or condition. No one may direct a person to change this symbol.

d. Correct status symbols entered or initialed in error as follows:

(1) When a dash ( - ) or diagonal ( / ) symbol is entered in error on DA Form 2408–13–1 or other maintenance forms (see chaps 2, 3, 5), the person who made the entry or initialed the status in error shall enter the following statement in the Correcting Information Block: "Status symbol entered in error, disregard" or "Status symbol entered in error, see entry below" or "Status initialed in error, reentered below" and his or her AKO user name in the PID block. For status symbols entered in error reenter the fault or deficiency and proper status symbol in the next open Fault Information block on the form.

(2) When a grounding X or circled X is entered or initialed in error on DA Form 2408-13-1 or other maintenance forms (see chaps 2, 3, 5), the person who made the entry shall enter the following statement in the Correcting Information Block, "Status symbol entered in error, disregard" or "Status symbol entered in error, see entry below" or "Status symbol initialed in error, reentered below" and their AKO user name in the PID block. Have the commander or a designated representative (usually a TI) verify the incorrect status symbol or the incorrectly initialed status symbol by entering "Insp OK," their signature and AKO user name (TI personnel identifier (TIPID)) in the Correcting Information Block. The designated representative shall then enter their last name initial over the status symbol in the Fault Information Block. Reenter the fault or deficiency with the proper status symbol in the next open Fault Information Block.

(3) The person finding an error in the System Status Blocks on DA Form 2408-13 (Aircraft Status Information Record) shall explain the error in the next open Fault Information Block of DA Form 2408-13-1 (this applies only to manual paper systems). The explanation shall include the aircraft or mission related equipment status symbol, the block that is in error and the AKO user name of the person correcting the error, in the Fault Information Block. For example, for "dash symbol in aircraft (ACFT) top block 2 entered in error," enter in the Correcting Information Block a statement showing corrective action that consists of a person's AKO user name in the PID block. For "Status adjusted," a status symbol is not required in the Fault Information Block for these entries. Enter the correct status symbol in the next open System Status Block on DA Form 2408-13, if it applies.

(4) Correct status symbols entered or initialed in error on DA Form 2408-13-2 (Related Maintenance Actions Record), block 8, by making an entry in block 10 stating, "Status symbol (entered or initialed) in error" and enter your AKO user name in block 11. Re-enter the related maintenance action with the correct status on the next open line of the form. Correct status symbols in Block 1 initialed in error by making an entry in Block 9 stating, "Status initialed in error." This entry shall not require a status symbol in Block 8 or an action entry in Block 10.

(5) Any maintenance or quality assurance personnel within any aviation maintenance activity, who believes that the fault, deficiency, or condition is more serious than depicted, has the responsibility to change the current status symbol to a more serious status symbol. They shall enter "Status symbol changed to (enter status symbol) see entry below" and their AKO user name (PID) in the Correcting Information Block. On the next open Fault Information Block, enter the new status symbol and reenter the fault or deficiency. The person changing the symbol shall place their AKO user name in the Fault Information Block to take responsibility for the status symbol change and entry.

(6) If the commander or person in an equal position in DOD contract support maintenance activities considers the condition of the aircraft or aviation associated equipment less serious than indicated by the status symbol, they may change the symbol as desired. Commanders or persons in an equal position in DOD contract support maintenance activities should not delegate the authority to change the status symbol to a less serious status symbol. In the Correcting Information Block, enter "Status symbol changed to (enter status symbol); see entry below," enter your AKO user name in the PID and TIPID Blocks. On the next open Fault Information Block, enter the status symbol in the Status Block and reenter the fault or deficiency, and enter your AKO user name in the PID block. Update the System Status Block on DA Form 2408-13.

*Note.* These procedures also apply to DA Form 2408-13-3.

### **1-9. Clearing status symbols**

*a.* When a grounding X or circled X condition is corrected a qualified designated representative appointed by the commander, activity supervisor, or an equal management or supervisory personnel in a DOD contract support maintenance activity in writing, must inspect the completed action.

(1) The mechanic making the corrective action shall fill out the Correcting Information Blocks, including the PID Block of DA Form 2408-13-1.

(2) Inspect the corrective action taken. If the action taken is satisfactory, the inspector shall enter a statement, "Insp OK," and their signature in the Correcting Information Block of DA Form 2408-13-1 (manual recordkeepers only). Manual recordkeepers have the authorization to use an inspector's stamp instead of the statement "Insp OK" and signature. The inspector shall also enter their AKO user name in the TIPID block.

*Note.* If an inspector's stamp is used, the stamp will be no larger than 1/2 inch in diameter.

(3) The inspector of the corrective action shall place his or her last name initial over the status symbol in the Fault Information Block of DA Form 2408-13-1 and update the proper System Status Block of DA Form 2408-13, if required (manual recordkeepers only).

*b.* When a designated representative or authorized TI does any part of the corrective action work to clear a grounding X or circled X, a different designated representative or TI shall inspect and sign off the corrective action. That inspector shall enter their AKO user name in the TIPID Block.

*Note.* These procedures also apply to DA Forms 2408-13-2 and DA Form 2408-13-3.

*c.* Only technical inspectors assigned to the unit or activity's quality control (QC) office shall sign off on initial status symbols generated by SOF messages, ASAMs, AMAMs, MWOs, RSNs, and other one-time inspection messages that call for a visual inspection of the aircraft, UAS subsystems, aircraft records, associated equipment and/or specific historical record entries. If other work is required to complete the inspection, any other TI may sign off on those status symbols as applicable. Perform inspector entries on DA Form 2408-13-1 per paragraph 1-9a(2) and 1-9a(3).

*d.* Occasionally, the action taken on some cleared status symbols on DA Form 2408-13-1, DA Form 2408-13-2, or DA Form 2408-13-3 does not correct the fault entirely or satisfactorily. If an MOC demonstrates the action taken did not correct the fault, leave the Correcting Information Block adjacent to the "MOC Required" entry blank. Enter faults discovered preventing the completion of the MOC in the next open Fault Information Block with the applicable status symbol in the Status Block. If correcting the fault preventing the correction of the original MOC requires an MOC, make a separate entry for that MOC on the next open Fault Information Block. After completing the MOC for the fault that prevented you from performing the original MOC, complete the original MOC and record it per paragraph 2-11.

e. Designated representatives can sign off on a grounding X status symbol inspected fault or deficiency found to be within the limitations. The designated representative can clear the entry by entering in the Correcting Information Block, "Insp OK," then entering their AKO user name in the PID and TIPID blocks.

f. Clearing a circled X status symbol for a one-time evacuation mission of an aircraft requires no maintenance action, and there is no requirement for the entry to be inspected by a designated representative.

### **1-10. Evacuating aircraft with a grounding X condition**

The commander, a designated representative, or an equal management supervisor in a DOD contract maintenance support activity may authorize a one-time evacuation mission for an aircraft with a grounding status of X when the benefits of the evacuation flight outweigh any degree of risk involved as follows:

*Note.* One-time evacuation missions (recovery missions) allow the commander flexibility to authorize more than one fuel stop when recovering an aircraft with grounding X condition. The aircraft shall stop at the first maintenance facility that shall support the maintenance repairs required. The commander is responsible for the risk assessment of each leg of the mission. Commanders shall not use this authorization to return an aircraft with grounding X condition to home station unless it is the first maintenance facility that shall support the maintenance repairs required.

a. Enter this statement in the Correcting Information Block of DA Form 2408-13-1: "Status symbol downgraded to a circled X; see entry below." The person making this entry shall enter their AKO user name in the PID block that applies (PID Block or TIPID Block). Manual record keepers may enter their signature after the statement.

(1) Enter a circled X in the next Fault Information Block and change the System Status Block on DA Form 2408-13.

(2) Enter this statement in the circled X Fault Information Block: "Aircraft cleared for a one-time evacuation mission from (enter current location) to (enter location of nearest maintenance facility that will support the required repairs)" and complete all portions of the Fault Information block that apply to include the PID Block. Manual record keepers may sign their name following the entry.

b. After completing the one-time evacuation mission, the pilot authorized by the commander or designated representative performing the one-time evacuation mission shall enter in the Correcting Information Block: "One-time evacuation mission completed, status symbol upgraded to a grounding X see entry below."

(1) The pilot shall enter their AKO user name in the Correcting Information PID Block. Enter a TI's AKO user name in the TIPID Block.

(2) The pilot shall enter the grounding X status symbol in the System Status Block on the next open box on DA Form 2408-13 and the status box in the Fault Information Block of DA Form 2408-13-1. Reenter the original fault and the pilot's AKO user name in the Fault Informatio PID Block.

### **1-11. Maintenance test flight and/or functional check flight verification of aircraft on grounding X status symbol**

a. The commander or a designated representative or an equal management supervisory person in a DOD contract maintenance support activity may authorize a maintenance test flight for verification, providing an acceptable degree of risk exists when ground tests shall not duplicate an in-flight grounding X status deficiency.

(1) Enter "Status symbol changed to a dash (-); see entry below" in the Correcting Information Block. Manual recordkeepers making this entry shall enter their signature after the statement. TIs shall enter their AKO user in the TIPID Block in the Fault Information Block of DA Form 2408-13-1.

(2) Enter in the next open the Fault Information Block, "Aircraft cleared for a maintenance test flight to verify (reason for test flight)." Manual record keepers shall sign their name following the entry. Complete all portions of the Fault Information Block that apply, to include PID.

(3) Enter a dash in the Status box of the Fault Information Block of DA Form 2408-13-1 and in the System Status Symbol Block on DA Form 2408-13.

b. If the test flight does not duplicate the fault or deficiency, the maintenance test pilot shall enter in the Correcting Information Block, "Could not duplicate, test flight completed-aircraft released for flight." Complete all portions of the Correcting Information Blocks that apply, to include PID.

c. If the test flight confirms that the in-flight fault or deficiency exists, the test pilot shall enter in the Correcting Information Block, "test flight completed see entry below," and complete all portions of the Correcting Information Block that apply, to include PID. In the next Fault Information Block, reenter the fault or deficiency, the proper status symbol, all information needed in the Fault Information Block, to include PID, and any other information noted during the test flight.

### **1-12. Safety-of-flight messages, aviation safety action messages, aviation maintenance action messages, and maintenance informational messages**

a. AR 750-6 covers the definition, preparation procedures for issue, compliance, and overall management of SOF messages, ASAMs, and AMAMs. SOFs messages, ASAMs, and AMAMs direct units and agencies to perform certain actions to avoid having supportability, sustainability, and maintainability shortfalls and requires a response back to the

sender that the message was received. Maintenance information messages (MIMs) are informational messages that apply to aviation maintenance personnel. Normally, MIMs do not require any entries on forms and records. Not all SOF messages call for maintenance actions, such as operational messages that apply to flight procedures, operating limits, or operational policy. Each SOF message, ASAM, and AMAM normally give detailed instructions on the condition status symbol to use, forms required, and how to report the receipt and application of the message.

b. Record all SOF messages, ASAMs, and AMAMs on DA Form 2408-13-1, except for informational ASAMs and AMAMs.

(1) Record all SOF messages, ASAMs, or AMAMs on DA Form 2408-13-1 upon receipt and then complete actions as directed in the message.

(a) Record compliance of SOF messages, ASAMs, or AMAMs on DA Form 2408-15 (Historical Record for Aircraft), except for SOF/ASAMs/AMAMs that involve reportable items listed in TB 1-1500-341-01/LIS component master LCF.

(b) Record compliance of SOF messages, ASAMs, or AMAMs involving reportable items (components and modules) listed in TB 1-1500-341-01/LIS component master LCF on DA Form 2408-5-1 unless directed otherwise by the SOF, ASAM, or AMAM.

*Note.* Do not duplicate the same SOF message, ASAM, or AMAM on both DA Form 2408-5-1 and DA Form 2408-15. Use the direction above for the appropriate form.

(2) SOF messages, ASAMs, and AMAMs that generate recurring inspection(s) are entered on DA Form 2408-18 (Equipment Inspection List). Enter the needed inspection(s), reference (SOF or ASAM message number), frequency of the inspection(s), and when the inspection(s) is next due on the DA Form 2408-18.

(3) SOF messages, ASAMs, or AMAMs affecting reportable components and modules in supply stock or items uninstalled in maintenance activities, enter the SOF, ASAM, or AMAM message number, abbreviated title of message, and phrase "Not complied with" on the materiel condition tag or label attached to the component, module, or carton containing the component. When the SOF message, ASAM, or AMAM is applied, enter the information on a DA Form 2408-5-1 for the component or module and attach or enclose the form with the component or module.

(4) Fill out the related DA Forms 2410 and DA Form 2408-16 or DA Form 2408-16-1 when a SOF message, ASAM, or AMAM calls for removal/replacement of a reportable component or module.

(5) If a SOF message, ASAM, or AMAM applies to a reportable component or module that does not have a serial number, obtain a serial number from the Serial Number Reporting Requirement Office AMCOM (AMSAM-MSI-L), Redstone Arsenal, AL via e-mail (usarmy.redstone.usamc.mbx.immc-snrr@mail.mil).

(6) When the SOF message, ASAM, or AMAM calls for changes in any significant historical data, such as, NSN, part number (PN), see instructions for the specific maintenance and historical forms and records (see chaps 2, 3, 4). Maintenance units or activities currently assigned aircraft shall complete (AMCOM Message Tracking System (AMTRACKS) (<https://amtracks.redstone.army.mil>) the (SOF, ASAM, or AMAM) Compliance Status Report. Include the information listed below per the SOF message, ASAM, or AMAM instructions.

(7) SOF, ASAM, or AMAM message number.

(8) Aircraft model design series.

(9) Aircraft serial number (in numerical sequence if more than one aircraft).

(10) Any other data called for in the message.

c. Maintenance personnel at every level of maintenance shall apply, record, and report the application of each SOF message, ASAM, or AMAM. SOF messages, ASAMs, or AMAMs not entered on a DA Form 2408-13-1 or historical record indicates noncompliance. For SOF messages, ASAMs, or AMAMs not recorded as complied with on DA Form 2408-13-1 or historical records, with a message that has reached or passed its effective date, personnel should comply with the message, then record and report the SOF message, ASAM, or AMAM per the above procedures.

### **1-13. Missing historical records or information**

Aircraft and associated equipment listed in appendix D, or reportable components and modules listed in TB 1-1500-341-01/LIS component master LCF received without maintenance and historical records, must have the following performed:

a. Request missing records from the transferring or shipping activity.

b. When missing records or information are not available from paragraph 1-13(a), obtain the information required from local sources; for example, DD Form 1574 (Serviceable Tag-Materiel (yellow)), DD Form 1574-1 (Serviceable Label-Materiel (yellow)).

c. Obtain missing information and prepare new maintenance and historical forms per procedures in chapters 3 and 4.

d. When paragraphs 1-13(a) and (b) have not supplied the required information, request usage data and other missing information from the DA Form 2410 Hotline at DSN 897-2410 (commercial (256) 313-2410 or Toll free 1-877-511-8139), by data fax (DSN 897-2075, (commercial (256) 313-2075), or by e-mail (usarmy.redstone.usamc.mbx.immc-data2410@mail.mil). Mark the request for "DA Form 2410 data." Give complete description (including part number and serial number) of each component and/or module and state the records and information needed. Include the unit



identification code (UIC) and state if the item is serviceable or unserviceable, installed or uninstalled. When the item is installed include the serial number of the next higher assembly.

*e.* Personnel requesting data on previously owned Government aircraft or parts should contact the Freedom of Information Act/PA Program Officer, U.S. Army Garrison (IMSE-RED-HRR), 3465 Zeus Road, Redstone Arsenal, Huntsville, AL, 35898-5000, or commercial (256) 842-8051 (DSN 788-8051), or e-mail [usarmy.redstone.usamc.mbx.immc-foia-business-mgt-office@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-foia-business-mgt-office@mail.mil).

*f.* When information is required for tracked reportable components, modules, or parts that contain more than one data plate, locate the proper data plate for the reportable item by identifying the noun, part number, and NSN that applies. Compare the noun, part number, and NSN against the listing in TB 1-1500-341-01 and approved system parts manual that applies.

*Note.* Aircraft components or modules preserved for shipment or storage shall only have the container opened to obtain data as a last resort.

#### **1-14. Aircraft and/or unmanned aircraft system and aviation associated equipment files content and management**

*a.* The required technical publications, ETMs, and/or IETMs (available at <https://www.logsa.army.mil>), forms and records (see chap 2) for aircraft and aviation associated equipment files are—

(1) Operator (TM 10 series) and maintenance (TM 23 series) manuals for the aircraft and aviation associated equipment.

(2) Operational forms and checklists used to report flight and maintenance information.

*b.* Maintain aircraft and aviation associated equipment files as follows:

(1) The commander, AMCOM, is responsible for operator and maintenance publications, ETMs, and/or IETMs for aircraft, associated equipment, and logbooks. Required forms (hard copy forms or printed electronic forms) (see chap 2) shall be properly completed and inserted in the logbook for new aircraft issued from the AMCOM property account. If an Army aviation LIS is available enter the aircraft data and create a transfer media along with the paper logbook and historical forms (see chap 2).

(2) The commander or person in equal management position of a DOD contract support maintenance activity of the assigned aircraft shall—

*(a)* Obtain the required publications, ETMs, and/or IETMs and blank forms (see chap 2). Maintain and complete the forms per this pamphlet.

*(b)* Units and activities shall maintain enough blank forms as a back up to the LIS and to support their assigned aircraft and UAS subsystems. Units and activities operating aircraft or UAS shall keep a minimum of one complete current set of technical publications, ETMs, and/or IETMs for each supported airframe or system. Local commanders may keep additional sets, as desired.

*(c)* Units and activities shall post current changes, revisions, and data to aircraft or UAS subsystems files.

*Note.* Nonstandard aircraft shall use operator's manual (TM 10 series and maintenance manuals TM 23 series) that apply.

*c.* All aircraft shall have the following publications and forms on board during operation and when transferred. UAS publications and forms shall be located in or readily accessible by the UAS operator at the ground control station during operation and when transferred.

(1) Operator's checklist.

(2) Operator's manual (TM 10 series) including changes and related SOF or TBs.

(3) Current DD Form 365-4 (Weight and Balance Clearance Form F-Transport (see AR 95-3)).

(4) Equipment logbook assembly or aviation LIS laptop consisting of the items below:

*(a)* Logbook binder (manual records only).

*(b)* Turbine engine health indicator test (HIT) exhaust gas temperature (EGT), maximum power check log, if applicable.

*(c)* Preventive maintenance daily (PMD) checklist and or preventive maintenance service manuals (not required for aircraft that do not use Army TMs, such as C-12, C-21, C-23, C-26, TH-67, and UH-72 series aircraft).

*(d)* Aircraft logbook forms:

1. DA Form 2408-31 (Aircraft Identification Card).

2. DA Form 2408 (Equipment Log Assembly (Records)).

3. DA Form 2408-4-1 (Weapon Record Data).

4. DA Form 2408-4-2 (Weapon Sighting Data (OH-58D)).

5. DA Form 2408-4-3 (Weapon Sighting Data (AH-64A)).

6. DA Form 2408-4-4 (Weapon Sighting Data (AH-64)).

7. DA Form 2408-12 (Army Aviator's Flight Record).

8. DA Form 2408-13 (Aircraft Status Information Record).

9. DA Form 2408-13-1 (Aircraft Inspection and Maintenance Record).

10. DA Form 2408-13-2 (Related Maintenance Actions Record).
11. DA Form 2408-13-3 (Aircraft Technical Inspection Worksheet).
12. DA Form 2408-14-1 (Uncorrected Fault Record (Aircraft)).
13. DA Form 2408-18 (Equipment Inspection List).
14. DD Form 1896 (DOD Fuel Identaplate).

(e) Use of the aviation LIS laptop computer and removable media as the logbook is authorized. When the laptop is used as the logbook maintain it onboard the Aircraft during flight, but do not operate it during flight. If the aviation LIS laptop does not contain all the information currently found in the manual logbook; then, use an abbreviated manual logbook in conjunction with the laptop computer. The abbreviated logbook shall contain all the forms or information not currently part of the aviation LIS but required per Army regulations, publications or messages—for example:

1. Blank DA Form 2408-13, DA Form 2408-13-1, DA Form 2408-13-2, and DA Form 2408-13-3) (used as an emergency backup to the laptop).
2. Printed HIT log unless scanned and maintained on the laptop.
3. Interim statement of airworthiness qualification (ISAQ), if applicable, and all AWRs for the specific MDS aircraft unless scanned and maintained on laptop.
4. SOFs, ASAMs and AMAMs required as part of the logbook for the specific MDS aircraft unless scanned and maintained on laptop.

d. Keep as DA Form 2408-13, DA Form 2408-13-1, DA Form 2408-13-2, DA Form 2408-13-3 in paragraph 1-14c(4), 1-14c(d) and 1-14c(e) in the aircraft logbook, however, only four forms make up the "Flight Pack:" The four forms are DA Form 2408-13, DA Form 2408-13-1, DA Form 2408-13-2, and DA Form 2408-13-3. Of the four forms in the Flight Pack, only three are given page numbers: DA Form 2408-13-1, DA Form 2408-13-2, and DA Form 2408-13-3. The DA Form 2408-13 in the Flight Pack shall not have a page number. It does have a space for "Number of pages in the Flight Pack," but do not count this page as a page in the Flight Pack. An example of the unique numbering system: An aircraft logbook contains one DA Form 2408-13, three DA Forms 2408-13-1, and one DA Form 2408-13-2. The first DA Form 2408-13-1 is page 1, the second DA Form 2408-13-1 is page 2, the DA Form 2408-13-2 is page 3, and the third DA Form 2408-13-1 becomes page 4, which makes the total number of pages in the Flight Pack four (4). Enter the number 4 in the "Number of pages in flight pack" block on the DA Form 2408-13. A DA Form 2408-13-3 becomes part of the flight pack and is numbered as a page in the flight pack when the DA Form 2408-13-3 is added to the aircraft logbook.

e. Do not maintain the historical forms and records listed below in the aircraft. Maintain the following forms in a safeguarded easy access area

(1) Maintenance historical forms and records:

- (a) DA Form 2408-5 (Equipment Modification Record).
- (b) DA Form 2408-5-1 (Equipment Modification Record (Component)).
- (c) DA Form 2408-15 (Historical Record for Aircraft).
- (d) DA Form 2408-15-2 (Aircraft Vibration Record).
- (e) DA Form 2408-16 (Aircraft Component Historical Record).
- (f) DA Form 2408-16-1.
- (g) DA Form 2408-16-2.
- (h) DA Form 2408-17 (Aircraft Inventory Record).
- (i) DA Form 2408-19 (Aircraft Engine Turbine Wheel Historical Record).
- (j) DA Form 2408-19-1 (T53/T55 Turbine Engine Analysis Check Record).
- (k) DA Form 2408-19-2 (T700 Series Turbine Engine Analysis Check Record).
- (l) DA Form 2408-19-3 (Engine Component Operating Hours Record).
- (m) DA Form 2408-19-4 (Engine Power Assurance Test Record).
- (n) DA Form 2408-20 (Oil Analysis Log).
- (o) DA Form 2408-33 (Meter Tracked Component Record).
- (p) Maximum Power Check, Turbine Engine HIT or EGT worksheets that apply.

(2) Aviation life support equipment (ALSE) forms and records:

- (a) DA Form 2408-21 (Multiplace Life Raft Inspection and Maintenance Record).
- (b) DA Form 2408-22 (Helmet and Attached Equipment Inspection/Maintenance Record).
- (c) DA Form 2408-23 (Survival Radio/Emergency Locator Transmitter Inspection Record).
- (d) DA Form 2408-24 (Survival Kit/Vest Inspection and Maintenance Record).
- (e) DA Form 2408-27 (Life Preserver Data).
- (f) DA Form 2408-28 (Oxygen Console Service Record).
- (g) DA Form 2408-29 (Anti-Exposure Coveralls Inspection Record).

(3) Completed forms and records will be processed and disposed of as per chapters 2, 3, 4, and 5.

(4) Completed maintenance inspection checklist for scheduled maintenance, such as a phase, or other scheduled maintenance are processed and disposed of per chapter 3.

f. Units and activities shall maintain and update the following:

- (1) MTF manual.
- (2) Aviation maintenance company (AMC) and aviation support company (ASC) manuals (TM -10 and -23 series).
- (3) The AVUM/AMC and AVIM/ASC aircraft repair parts and special tools list (TM-23P).
- (4) The AVUM/AMC and AVIM/ASC aircraft engine maintenance manual (TM-23).
- (5) The AVUM/AMC and AVIM/ASC aircraft engine repair parts and special tools list (TM-23P).
- (6) Organizational maintenance manual: Electronic Equipment Configuration (TM-20 or -23).
- (7) Organizational maintenance repair parts and special tools lists manual: Electronic Configuration (TM 20P series or TM 23P series).
- (8) Organization maintenance manual: Armament subsystem (TM 12 series).
- (9) Maintenance repair parts and special tools list manual: Armament subsystem (TM 20P or TM 23P).
- (10) Automated Weight and Balance System (AWBS) applies to maintenance units or activities utilizing an authorized approved automated weight and balance program.
- (11) Army Aviation Maintenance Engineering Manual, Weight and Balance (TM 55-1500-342-23).

### **1-15. Records to accompany aircraft**

a. Army aircraft listed in appendix D shall have, on board, the publications and forms listed in paragraph 1-14c at the time the property transfers from one account to another, during deployment to field exercises or combat operations. Transport other forms, records, and publications listed in paragraph 1-14e separately to the unit or activity receiving, operating, or maintaining the aircraft within 24 hours from the aircraft departing from the transferring or deploying unit or activity. Do not load the items in paragraph 1-14e aboard the aircraft, cargo aircraft, barge, ship, or vehicle that is transporting the transferred or deployed aircraft. Do not load all the items listed in paragraph 1-14e in one single container, such as a container express. The preferred method of shipping these items is individually through a commercial air courier service. Alternate methods may be utilized as long as the security and integrity of the data is not lost or compromised and can be fully reconstructed in the event of aircraft loss. The transferring or deploying unit or activity is responsible for tracking items through arrival at the receiving unit or activity.

b. The aviation LIS fielded units shall print the logbook records and all historical records prior to performing a transfer out and then download the records to removable media to facilitate the uploading of aircraft records at the gaining organization. Losing organizations shall create a backup file and retain until confirmed receipt of shipped historical records by gaining organization. A QC review shall look at all operational and/or historical records to determine serviceability standards and make entries to records requiring notations of the transfer. Manual/hard copy records are required if the gaining organization was not fielded with aviation LIS. Ship manual/hard copy forms and records and removable media per instructions in paragraph 1-15a.

c. Units and activities shall send all aircraft forms, records, and files to the gaining unit or activity when the aircraft is—

- (1) Transferred to another unit or activity (includes the 6-month file).
- (2) Delivered for repair, at the request of a higher-level maintenance activity.
- (3) Delivered to a depot level, organic, or DOD contract support maintenance activity for repair, overhaul, modification, or modernization.

### **1-16. Excess, deteriorated, crash damaged, or destroyed Army Aircraft or unmanned aircraft system transferred to the Defense Reutilization and Marketing Office**

a. All UAS systems shall receive disposition from Army, Aviation and Missile Command, PEO-Aviation (SFAE-AV-UAS), Redstone Arsenal, AL 35898-5000.

b. Transfer flyable or deteriorated aircraft designated as excess to the Army's requirements by AMCOM and the DCS, G-4, and for sale or donation per DOD 4160.21-M, to the local Defense Reutilization and Marketing Service (DRMS). The aircraft data plate shall remain attached to flyable aircraft. Nonflyable aircraft shall have the data plate removed and photocopied. The photocopy shall remain with the aircraft and the data plate sent to AMCOM. The complete logbook and transfer removable media, including all forms, records, files, and publications, shall transfer with the aircraft. The activity transferring the aircraft to the DRMS shall complete the following actions:

- (1) Must complete a serial number inventory of all reportable components and subcomponents listed in TB 1-1500-341-01 or LIS parts master LCF. Because of inaccessibility of some subcomponents, such as internal engine subcomponents, a total inventory is not possible. Compare the serial number inventory with the DA Forms 2408-16 and DA Form 2408-16-1 to ensure forms are current and accurate.
- (2) Review current DA Form 2408-20 to ensure all information is current. Notify the servicing Army Oil Analysis Program (AOAP) laboratory of the aircraft and components transferred.
- (3) When AMCOM issues a "Save List" (a memo containing a list of items to remove prior to transfer) containing

reportable components listed in TB 1-1500-341-01 or LIS parts master LCF, submit a DA Form 2410 removal of the item(s) and line out the item(s) on the paper DA Form 2408-16 or DA Form 2408-16-1.

(4) Remove the data plate from all aircraft if it has not already been removed. Mail it, along with the hard copy records and a copy of the aviation LIS transfer removable media, to the Commander, AMCOM (AMSAM-MSI-L (CDRA)), Redstone Arsenal, AL 35898-5000. Annotate the aviation LIS software version on the removable media label.

(5) Make a close-out entry on the DA Form 2408-15 as follows: "Close-out Statement: All items on the DA Form 2408-16 are verified installed. Aircraft processed to DRMS at (location of DRMS) on (date) by (name of facility or unit transferring aircraft) at (total aircraft hours). Aircraft data plate (was and/or was not) removed, (include the reason for transfer)," followed by the AKO user name or, if not assigned an AKO user name, the first name, middle initial, and last name, unit, and phone number of the individual making the entry. If the engines are equipped with history recorders and/or counters, enter the history recorder and/or counter serial numbers and readings for each engine, with the engine serial number.

(6) Make a legible photocopy of the current DA Form 2408-13, all DA Form 2408-15, DA Form 2408-16, and DA Form 2408-16-1, and the AMCOM "Save List" and send to the Commander AMCOM (AMSAM-MSI-L (CDRA)), Redstone Arsenal, AL 35898-5000. Current and accurate information is required on these forms. AMCOM will use the photocopy of the forms to complete the DA Form 2410, Loss to the Army inventory, for all reportable components and subcomponents installed on the aircraft at the time of transfer.

c. Transfer crash damaged or destroyed aircraft to the local DRMS after receiving disposition instructions from AMCOM. The activity possessing the aircraft before transfer to the DRMS shall complete the following actions:

(1) Complete a serial number inventory of all accessible reportable components and subcomponents listed in TB 1-1500-341-01 or LIS parts master LCF. Compare the serial number inventory with DA Forms 2408-16 and DA Form 2408-16-1 to ensure forms are current and accurate. AMCOM shall use the DA Form 2408-16 and DA Form 2408-16-1 to complete the DA Form 2410, for all reportable components and subcomponents installed on the aircraft at the time of transfer.

(2) Notify servicing AOAP laboratory of the aircraft and components transferred.

(3) When AMCOM issues a "Save List" containing reportable components listed in TB 1-1500-341-01 or LIS parts master LCF, submit a DA Form 2410, removal of the item(s) and line out the item(s) on the paper DA Form 2408-16 or DA Form 2408-16-1 or remove from the aircraft if using aviation LIS. It is mandatory to furnish a copy of the "Save List" to AMCOM with the aircraft records.

(4) Remove the aircraft data plate and mail to AMCOM along with a hard copy of the forms and records and an aviation LIS transfer removable media. Annotate the aviation LIS software version on the removable media label.

(5) Make a closeout entry on the DA Form 2408-15 as follows: "Close-out Statement: All items on the DA Form 2408-16 are verified as installed. Aircraft processed to DRMS at (location of DRMS) on (date) by (name of facility or unit transferring aircraft) at (total aircraft hours). Data plate sent to AMCOM." State the reason for transfer, followed by the unit, AKO user name and phone number of the commander's designated representative having jurisdiction over the aircraft at the time of disposal. If the engines are equipped with history recorders and/or counters, enter the history recorder and/or counter serial number and readings for each engine, with engine serial number.

(6) Make a legible photocopy of the current DA Form 2408-13, all DA Form 2408-15, DA Form 2408-16, and DA Form 2408-16-1, and the AMCOM "Save List" and send to the Commander AMCOM (AMSAM-MSI-L (CDRA)), Redstone Arsenal, AL 35898-5000. Current and accurate information is required on these forms. AMCOM will use the photocopy of the forms to complete the DA Form 2410, Loss to the Army inventory, for all reportable components and subcomponents installed on the aircraft at the time of transfer.

(a) Current DA Form 2408-13.

(b) DA Form 2408-5.

(c) DA Form 2408-5-1.

(d) DA Form 2408-15.

(e) DA Form 2408-15-2.

(f) DA Form 2408-16.

(g) DA Form 2408-16-1.

(h) DA Form 2408-19.

(i) DA Form 2408-19-1.

(j) DA Form 2408-19-2.

(j) DA Form 2408-19-4.

(l) DA Form 2408-33.

(7) Destroy the forms listed below:

(a) DA Form 2408-13 (all except the current form).

(b) DA Form 2408-13-1.

(c) DA Form 2408-13-2.

- (d) DA Form 2408-14-1.
- (e) DA Form 2408-16-2.
- (f) DA Form 2408-17.
- (g) DA Form 2408-18.
- (h) DA Form 2408-20.
- (i) The aircraft 6-month flying file.
- (j) Aircraft weight and balance file.

(8) AMCOM will hold all forms and records for crash-damaged aircraft for 2 years. At the end of that 2-year period, AMCOM shall send the forms and records to the Director, Washington National Records Centers, General Services Administration, Washington, DC 20404 to be held as permanent records. Information on these forms and records is available upon request. Personnel outside the Federal Government may request the information via the Freedom of Information Act. This service may involve a cost. Send request to: Freedom of Information Act/PA Program Officer, U.S. Army Garrison (IMSE-RED-HRR), 3465 Zeus Road, Redstone Arsenal, AL 35898-5000.

*Note.* Treat aviation LIS removable media the same as hard copy forms and records. Automated units shall submit hard copy forms and records along with the removable media.

### **1-17. Aircraft transferred to other Government agencies and the Military Assistance Program**

a. Army aircraft, flyable or non-flyable, may transfer to other Government agencies or state and local agencies when designated by AMCOM. The aircraft data plate shall remain attached to the aircraft. The complete logbook assembly, transfer removable media, forms, records, files, publications, and data plate shall transfer with the aircraft, except the DA Forms 2408-12 (manual recordkeepers only) which is kept on file in the operations office. The activity possessing the aircraft before transfer shall complete the following actions:

(1) Complete a serial number inventory of all accessible reportable components and subcomponents listed in TB 1-1500-341-01 or LIS Parts Master LCF. Compare the serial number inventory with the DA Forms 2408-16 and DA Form 2408-16-1 to be sure that the forms are current and accurate.

(2) Make a closeout entry on the DA Form 2408-15 as follows: "Closeout Statement: All items on the DA Form 2408-16 are verified as installed. Aircraft transferred to (location of receiving organization) on (date) for (reason for transfer) by (name of facility or unit transferring aircraft) at (total aircraft hours). Data plate remained installed." State the reason for transfer followed by the AKO user name or if not assigned an AKO user name use the first name, middle initial, and last name, unit, and phone number of the individual making the entry. If the engines are equipped with history recorders and/or counters, enter the history recorder or counters serial numbers and readings for each engine, with engine serial number.

(3) Review the DA Form 2408-5, DA Form 2408-5-1, and DA Form 2408-15 to ensure all applicable MWOs, RSNs, SOF messages, ASAMs, AMAMs, and TBs have been complied with and entered.

(4) Complete any scheduled or special maintenance inspections due.

(5) Manual record keepers only, transfer all uncorrected faults listed on the DA Form 2408-14-1 to a DA Form 2408-13-1, Fault Information Blocks. Place the DA Form 2408-14-1 in the aircraft 6-month file.

(6) Perform a final aircraft inventory and annotate DA Form 2408-17 per instructions in chapter 4.

(7) Review current DA Form 2408-20 to ensuring all information is correct. Notify the servicing AOAP laboratory of the aircraft and components transfer.

(8) Send a legible copy of the current DA Form 2408-13, all DA Form 2408-15, DA Form 2408-16, and DA Form 2408-16-1 and the AMCOM "Save List" to Commander, AMCOM (AMSAM-MSI-L (CDRA)), Redstone Arsenal, AL 35898-5230. AMCOM shall use the forms to complete the DA Form 2410 for all reportable components and subcomponents installed on the aircraft at the time of transfer. Aviation LIS users shall mail a transfer removable media along with the copies. Annotate the software version on the removable media label.

b. Aircraft transferred to the Military Assistance Program shall follow the procedures for transfer of a U.S. Army aircraft to other Government agencies and the instructions in the message authorizing transfer of the aircraft.

c. AMCOM will hold copies of all forms and records for excess or deteriorated aircraft and aircraft transferred to other Government agencies, military assistance program, museums, and static displays for 6 months before destroying.

### **1-18. Aircraft used for static display or transferred to museums**

a. The activity possessing an aircraft for transfer destined for use as a static display shall complete the following actions:

(1) Complete a serial number inventory of all accessible reportable components and subcomponents listed in TB 1-1500-341-01 or LIS Parts Master LCF. Compare the serial number inventory with DA Form 2408-16 and DA Form 2408-16-1 to ensure forms are current and accurate. AMCOM will use DA Forms 2408-16 and DA Form 2408-16-1 to complete the DA Form 2410 Loss for all reportable components and subcomponents installed on the aircraft at the time of transfer.

(2) Review current DA Form 2408-20 ensuring all information is current. Notify servicing AOAP laboratory of the aircraft and components transferred.

(3) When AMCOM issues a "Save List" containing reportable components listed in TB 1-1500-341-01 or LIS Parts Master LCF, submit a DA Form 2410, Removal of the item(s), and line out the item(s) on DA Form 2408-16 or DA Form 2408-16-1. It is mandatory to furnish a copy of the "Save List" to AMCOM with the aircraft records.

(4) Make a close-out entry on DA Form 2408-15 as follows: "Close-out Statement: All items on the DA Form 2408-16 are verified as installed. Aircraft transferred to (location and organization) on (date) by (name of facility or unit transferring aircraft) at (total aircraft hours). Data Plate Sent to AMCOM," followed by the signature, unit, and phone number of the commander's designated representative having jurisdiction over the aircraft at the time of transfer. If the engines are equipped with history recorders/counters, enter the history recorder/counter serial numbers and readings for each engine, with the engine serial number.

(5) Remove the aircraft data plate and make a photocopy of the data plate. The photocopy shall remain with the aircraft. Mail the aircraft data plate and the following hard copy records and aviation LIS transfer removable media (annotate aviation LIS software version on the removable media label) to Commander, AMCOM (AMSAM-MSI-L (CDRA)), Redstone Arsenal, AL 35898-5000:

(a) Current DA Form 2408-13.

(b) DA Form 2408-5.

(c) DA Form 2408-5-1.

(d) DA Form 2408-15.

(e) DA Form 2408-15-2.

(f) DA Form 2408-16.

(g) DA Form 2408-16-1.

(h) DA Form 2408-19.

(i) DA Form 2408-19-1.

(j) DA Form 2408-19-2.

(k) DA Form 2408-19-4.

(l) DA Form 2408-16-2 (APU).

(m) DA Form 2408-33.

(6) Destroy the forms listed below.

(a) DA Form 2408-13 (except the current form).

(b) DA Form 2408-13-1.

(c) DA Form 2408-13-2.

(d) DA Form 2408-14-1.

(e) DA Form 2408-17.

(f) DA Form 2408-18.

(g) DA Form 2408-20.

(h) Aircraft 6-month flying file.

(i) Aircraft weight and balance file.

b. Aircraft Transferred to Museums

(1) Records of aircraft used in museum displays may remain with the aircraft provided the aircraft has significant historical value, or the records are declared part of the display. When transferring the complete logbook assembly, transfer removable media, forms, records, files, and publications with the aircraft, perform the following:

(a) Make a serial number inventory of all accessible reportable components and subcomponents listed in TB 1-1500-341-01 or LIS Parts Master LCF. Compare the serial number inventory with the DA Form 2408-16 and DA Form 2408-16-1 ensuring forms are accurate and current.

(b) When AMCOM issues a "Save List" containing reportable components listed in TB 1-1500-341-01 or LIS Parts Master LCF, submit a DA Form 2410, Removal of the item(s), and line out the item(s) on the DA Form 2408-16 or DA Form 2408-16-1. It is mandatory to furnish a copy of the "Save List" to AMCOM with the aircraft records.

(c) Make a closeout entry on the DA Form 2408-15 as follows: "Close-out Statement: All items on the DA Form 2408-16 are verified as installed. Aircraft transferred to (location of receiving museum) on (date) for (reason for transfer) by (name of facility or unit transferring aircraft) at (total aircraft hours). Data plate remained installed." followed by the AKO user name or if not assigned an AKO user name use the first name, middle initial and last name, unit, and phone number of the individual making the entry. If the engines are equipped with History Recorders enter the history recorder serial numbers and readings for each engine, with the engine serial number.

(d) Send a legible copy of the current DA Form 2408-13, DA Form 2408-15, DA Form 2408-16, DA Form 2408-16-1, and DA Form 2408-16-2, and the AMCOM "Save List" to the Commander, AMCOM (AMSAM-MSI-L (CDRA)), Redstone Arsenal, AL 35898-5000. The copies of these forms are used by AMCOM to complete the DA Forms 2410 for all reportable components and subcomponents installed on the aircraft at the time of transfer. Aviation

LIS users shall mail a transfer removable media along with the copies. Annotate the software version on the removable media label.

(2) When the records are not transferred with the aircraft, follow the procedures in paragraph 1–19a(5) and 1–19a(6).

(3) If the aircraft data plate is not remaining with the aircraft remove the data plate and make a photocopy. The photocopy of the data plate shall remain with the aircraft and the data plate shall be sent to Commander, AMCOM (AMSAM-MSI-L (CDRA)), Redstone Arsenal, AL 35898-5000.

### **1–19. Aircraft and components used for maintenance trainers**

a. Units and activities with aircraft designated as Category A or B maintenance training airframe (MTA) shall maintain all forms and records required by paragraph 1–14. Send copies of the current DA Form 2408–13, last (most current) page of aircraft DA Form 2408–15, and all DA Form 2408–16 and DA Form 2408–16–1.

b. When an aircraft is redesignated as an MTA, follow the procedures in paragraph 1–17a.

c. When aircraft components or modules are designated as structural training devices, dynamic training devices, or isolated aeronautical elements, used in a training environment, submit a DA Form 2410, to AMCOM for each reportable item.

d. TM 1–1500–328–23 provides policy for training aircraft.

### **1–20. Army aircraft loaned or bailed, or procured for other Government departments and agencies**

Army aircraft transfer removable media, copies of paper forms, records, files, and publications shall accompany aircraft loaned or bailed to other Government departments or agencies, industrial and research activities. The activity operating, maintaining, storing, or disposing of aircraft per this pamphlet are responsible for maintaining the forms, records, files, publications, ETMs, and/or IETMs for loaned or bailed aircraft.

### **1–21. Classifying records and reports**

Reports, records or LIS programs displaying data of unit requirements, authorizations, on-hand quantities, percent of fill, quantities of inoperable equipment, equipment availability (in days or hours), equipment availability rates (MC, FMC, PMC) or equipment non-availability rates (NMC, NMCM, NMCS) as for official use only (FOUO). This designation applies regardless of whether the data is for a single NSN or LIN of equipment, a portion of a unit's equipment, all of a unit's equipment, a single aircraft, multiple aircraft, consolidated, rolled up, or otherwise arrayed. Handle FOUO Logistics data in accordance with the information security protective measures prescribed by AR 380–5. Aviation LIS shall provide classification designation FOUO for all printed records and reports and also display of automation business processes.

### **1–22. Standard Army Logistics Information Systems**

a. LIS standard systems include: Standard Army Maintenance System-Enhanced (SAMS-E), Unit Level Logistics System-Aviation Enterprise (ULLS-AE), Unmanned Aircraft Systems – Initiative (UAS-I), Standard Army Retail Supply System-Objective (SARSS-O), Property Book Unit Supply Enhanced (PBUSE), and Transportation Coordinator's Automated Information for Movements System (TC AIMS).

b. Commanders are responsible for the secure operation of Army LIS sites. This responsibility includes stored data, hardware, and software. Automated protection mechanisms were developed and are available for use in Army LIS.

c. Procedures in this pamphlet apply to all levels of maintenance personnel using an Army LIS for aviation forms and records (see Chap 2-5). Units that are not supported by an automated system shall annotate everything on hard copy paper forms.

d. The end user instructions provided to aviation LIS users supplies the information necessary to use the system effectively and explains the "How To" functions. If there is a conflict with the end user instructions and this DA Pamphlet, submit DA Form 2028 to Commander, AMCOM (AMSAM-MSI-L), Redstone Arsenal, AL 35898-5000 or e-mail to [usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-tamms-a-policy@mail.mil).

e. Users shall develop a standard operating procedure (SOP) to establish procedures for using the aviation LIS.

f. Use only approved Army LIS system software, AMCOM Master LCFs (DA Form 2408-18 inspections; DA 2408–16, DA Form 2408–16–1, DA Form 2408–33 components; DA Form 2408-17 inventory items, and work unit codes (WUCs)), the LOGSA Master Data Files and the authorized automated Weight and Balance System software to supplement these procedures. Install the latest aviation LIS software change packages (SCPs), interim change packages (ICPs), and all changes to the AMCOM Master LCFs as soon as possible. This ensures the most current inspections, tracked components, and readiness data are used.

g. The established master LCFs controlled by AMCOM (parts LCF, inspection LCF, inventory LCF, and WUCs) help standardize files among aviation units. Units shall not add, delete, or change these files without approval from AMCOM. Discrepancies and questions pertaining to the LCFs shall be directed to AMCOM.

(1) The aviation LIS Parts Master LCF takes precedence over the TB 1–1500–341–01. The purpose of centrally controlling changes to the parts master LCF at AMCOM is to ensure that all users are using the same baseline.

AMCOM may direct a user to locally change the parts or inspections LCF and AMCOM will incorporate that change into AMCOMs next update. The user's parts LCF shall be divergent from everyone else until AMCOM releases the new change and users apply it. Divergent files compromise data integrity during transfer of aircraft between units.

(2) The following details actions for transferring aircraft between units:

(a) Label all transfer removable media with the baseline number and master data file change number. The receiving organization must determine the accuracy of records prior to transfer in. Attempts to transfer between units not on the same version will result in version "error message" to the user indicating that the versions are incompatible. This error message is not a software problem, but is designed into the system to inform the users of a version conflict. Contact the unit administrator for assistance if the transfer removable media baseline number or master data file change numbers do not match.

(b) The losing and gaining units aviation LIS (ULLS-AE) computers must have identical Inspection Master Data Files. The Inspection Master Data File and aircraft inspection record must match each other. The system code, item number, and inspection narrative for each inspection must match each other. The gaining unit will have to review all 800 inspection numbers of the losing unit and determine how those inspections compare to their 800 inspections and if the inspections are applicable to the gaining unit.

(c) The losing unit shall retain a copy of all operational events and operational crew data and all open and closed faults in their database. Units will ensure that any uninstalled parts currently work ordered are no longer "data tagged" to the transferring aircraft. Uninstalled components remain at the losing unit; they are no longer associated with any aircraft. The gaining unit receives all installed components.

(d) The losing unit shall retain a copy of all previous 1352 data in their database. The gaining unit shall only receive the current period's data.

(e) The losing unit shall provide the gaining unit with Phase data, if the phase was completed within the past 180 days.

(f) The losing unit shall print out hard copies of the logbook and historical records to support induction into the aviation LIS system or to support a manual system.

h. The aviation LIS uses an approved electronic version of all DA operational, maintenance, and historical forms (see chaps 2–5) Preprint, stock, store, and issue DA hard copy forms using the Army LIS or from APD, for use as a back-up system for the computer hardware or software when Army LIS is inoperative, or when away from home station, or you have no access to Army LIS computers or connectivity.

i. Once the conversion process from all old historical paper forms to the new historical automated forms (see chaps 4 and 5) is completed (all information has been entered into the aviation LIS), the old converted paper forms are for reference use only. Units shall keep old converted forms in a safe place for 6 months. After 6 months, if the maintainer is satisfied that the converted records are correct, the maintainer may destroy the paper forms.

j. The aviation LIS automatically totals and enters man-hours in the CORRECTING INFORMATION block on the corresponding DA Form 2408-13-1 for all man-hours expended in correcting a fault or completing an inspection on the DA Form 2408-13-2.

k. The aviation LIS users shall close out the logbook flight pack at the end of the mission day or before the first flight of the next mission day. The person responsible for the close out shall ensure all open faults transferred to the new DA Form 2408-13-1. Aviation LIS works with the LOGSA AMSS (DA Form 1352 (Army Aircraft Inventory, Status and Flying Time), which is the automated system for reporting readiness for aircraft and aviation systems.

l. The aviation LIS users may develop and utilize major maintenance events (MMEs) templates or preprinted DA Form 2408-13-2s; for example, engine changes, 25-hour inspections and phases. Aviation LIS users should develop and use the major maintenance events and the phase packages. Aviation LIS users must closely monitor and keep current the major maintenance events and phase packages by adding new inspections and/or maintenance actions and deleting old inspections and/or maintenance action in accordance with changes to technical publications, SOFs, ASAMs, and AMAMs. Any UAS users shall submit recommended MMEs to the UAS PMO.

m. As a minimum, perform backups daily.

n. Army LIS programs may not be capable of managing all new and updated forms and records requirements due to new technology and ever changing tracking procedures. Therefore, it may be necessary to manually track some items on paper forms until the LIS systems are changed to accommodate the new tracking procedures.

o. The aviation LIS administrator shall keep a file with all the aviation LIS users and the PID assigned to the user. This information is required if there is ever a question about who made the entry or who generated the DA Form 2410.

p. The aviation LIS units that are manually managing components on DA Form 2408–16, DA Form 2408–16–1, and DA Form 2408–33 should use the AMCOM MCDS to submit all copies of DA Form 2410 in accordance with this DA Pam.

q. Manual logbook forms (see chap 2) shall be used when the aviation LIS system is inoperative or when the aircraft is in flight (nonavailability of laptop). All entries made on manual logbook forms shall be entered into the aviation LIS system at the first opportunity, and then the paper forms may be destroyed but not before the entries have been verified.

r. The aviation LIS tablet computer is authorized to be the official electronic logbook. The aircraft electronic



logbook will transfer with the aircraft and be carried on the aircraft during flight the way the manual logbook has been. Only Army approved air worthy computer devices will be carried on Army aircraft.

s. The aviation LIS (ULLS-AE) logbook does not accommodate all the information currently found in the manual logbook (see Chap 2). All forms not automated (safety messages and AWRs) shall be scanned and made part of the electronic logbook.

t. If for some reason the electronic logbook is not carried on the aircraft during flight then a paper logbook will be utilized to include all forms and records in accordance with this pamphlet. Units and activities shall not substitute a just a media device/data card for the tablet computer logbook.

u. The requirement for the 6-month flying file still exists in the form of a manual and automated file. The manual 6-month file consists of manual phase books, and/or any manual form(s) (see Chap 2-5) not automated by aviation LIS. The automated 6-month flying file is archived on the aviation LIS system.

v. The aviation LIS units finding a problem with the program shall contact Customer Support System (screenshots of your issues are always helpful):

- (1) Helpdesk toll free number is 1-866-547-1349; DSN is 687-1051; OCONUS is 1-312-687-1051.
- (2) Enter an issue using the Web portal, URL address: <https://s4if.lee.army.mil>.
- (3) Email your issue to the Helpdesk at: [lee.sec1.cao@conus.army.mil](mailto:lee.sec1.cao@conus.army.mil).

### **1-23. Aircraft Quality Control Program**

To ensure aircraft and aviation associated equipment maintenance operations provide the best possible support to sustain aircraft safety and combat readiness, Field and sustainment facility (depot) level maintenance activities shall—

a. Establish an effective QC and technical inspection program as outlined in TC 3-04.7.

b. Maintain and support the QC program by meeting the following objectives:

(1) Assignment of only skilled and qualified maintenance personnel to perform QC and technical inspection (TI) functions.

(2) Establish QC and TI procedures to ensure quality maintenance work is performed on aircraft, components, modules, systems, subsystems, aviation associated equipment, diagnostic equipment, shops, forms, records, and files.

(3) Ensure that field and sustainment facility (depot) maintenance meets the established maintenance performance standards.

(4) Ensure that the QC function is managed independently of other functions, such as production control; maintenance; administrative; forms, records, and file management; allied shops; pre-shop analysis; and readiness reporting.

(5) The standard for aeronautical equipment maintenance management policies and procedures for forms, records, and files is contained in AR 750-1, DA Pam 738-751, and TM 1-1500-328-23.

### **1-24. Aircraft weight and balance control**

a. Flight characteristics and structural limitations of aircraft are directly dependent upon conditions of weight and balance (WB). Gross weight and center of gravity have a bearing on performance, stability, and control of the aircraft. Adhering to policy and principles set forth in AR 95-1, AR 95-23, and TM 55-1500-342-23 can prevent hazardous flight conditions and accidents resulting from out of limit conditions.

b. Initial basic WB data are part of the package when the Army receives the aircraft, then it becomes the responsibility of the maintenance and operating activities to maintain accurate and timely WB data.

c. Unit WB technicians shall prepare and maintain up to date and accurate WB files for aircraft in their unit. This shall include weighing of aircraft at appointed times for the specific aircraft.

d. The pilot and/or UAS operator is responsible for accuracy of DD Form 365-4 and for WB condition of the aircraft remaining within safe operating limits through the entire mission.

e. Information necessary for control of WB of Army aircraft, to include use and preparation of related forms (see chaps 2 and 4), are contained in AR 95-1, AR 95-23, TM 55-1500-342-23, and aircraft TM 10 and 23 series manuals or equivalent manuals for nonstandard aircraft.

f. Do not fly aircraft with equipment that is part of the basic aircraft weight added to, removed from, or relocated within the aircraft, because of maintenance or specific mission requirements, unless the WB change is documented in accordance with TM 55-1500-342-23.

g. AR 95-1 and AR 95-23 authorize use of electronic computer data sheets when the information is the same as that required on the DD Form 365-1 (Chart A – Basic Weight Checklist Record), DD Form 365-2 (Form B – Aircraft Weighing Record), DD Form 365-3 (Chart C - Basic Weight and Balance Record), and DD Form 365-4 (Weight and Balance Clearance Form F – Transport). The Automated Weight and Balance System (AWBS) software version 9.2 and later fulfills this requirement and is available for download from <https://www.jtdi.mil>. Only U.S. Government agencies and their DOD contractors are authorized to use the AWBS.

### **1-25. Standard Army Maintenance System–Enhanced**

The SAMS–E provides maintenance and management information to each level of command, from the user to the

division or corps, wholesale, and DA levels where the data interface through Army electronic product support to the Logistics Integrated Data Base (LIDB).

- a. Unit-level activities shall report maintenance information to SAMS-E
- b. When the aviation LIS is fielded to a unit, not-mission-capable maintenance (NMCM) and not-mission-capable supply (NMCS) shall be passed to SAMS-E using an output process in the aviation LIS. Units without an aviation LIS shall complete paper DA Form 2407/DA Form 2407-1.
- c. A maintenance request register shall be maintained by the unit activity. The maintenance request register may be a DA Form 2405 or LIS Generated digital DA Form 2405.
- d. The organization (ORG) work order number (WON) is the key to tracking the work done for the unit on each aircraft, component/module, or other unit equipment and it assists the unit in the NMCM process by tracking NMCM time for equipment belonging to each unit. Assign an ORG WON to all SAMS-E work orders (see para 3-10 for assignment of an ORG WON).

#### **1-26. Aircraft component and/or module repair**

a. Document all component/module repairs performed at field and sustainment facility (depot) level. Repair of a component/module performed by a field or sustainment facility (depot) repair shop, such as module repair, sheet metal repair, engine repair, and so on shall not be documented in the aircraft Flight Pack. Document field level aircraft repair performed by a field unit or sustainment facility (depot), such as, phase maintenance inspection, periodic inspection, unscheduled maintenance and maintenance other than component/module repair in the aircraft Flight Pack and/or phase packages.

(1) Repair of components/modules that could affect aircraft safety (Aviation CSI) and DA Form 2410 tracked components shall be documented using DA Forms 2408-13-3 and DA Form 2408-13-2, in addition to DA Form 2407/DA Form 2407-1 and DD Form 1574.

(2) Repair of components/modules that do not affect Aviation CSI or DA Form 2410 tracked components may be documented using DA Form 2407/DA Form 2407-1 and DD Form 1574 only.

b. When an activity requests maintenance from a field unit or sustainment facility (depot) facility the following forms shall be prepared by the requesting activity and accompany the component/module to be repaired:

- (1) DA Form 2407 or automated ULSS-A (Army LIS users).
- (2) DD Form 1577-2 (Unserviceable (Reparable) Tag-Materiel).
- (3) All historical forms and records, such as the DA Form 2408-5-1, DA Form 2408-15, DA Form 2408-16, DA Form 2408-16-1 and DA Form 2410.

c. When a work request is received, the field or sustainment facility (depot) activity shall—

(1) Perform an initial inspection of the item to be repaired. The QC technical inspector shall document the initial inspection and enter the fault verbatim from DA Form 2407, block 24, to DA Form 2408-13-3 for all components/modules that affect aircraft flight safety. The inspector shall ensure that all required historical records are present. Faults discovered for components/modules not affecting aviation critical safety items shall be documented on DA Form 2407.

(2) Send DA Form 2408-13-3, DA Form 2407, and DA Form 2408-13-2, if supplied by an aviation LIS unit, with the item to be repaired after acceptance by the production control office.

(3) Record any faults discovered on DA Form 2408-13-3.

(4) Record related maintenance actions required to repair fault(s) on DA Form 2408-13-2.

(5) After completion of the repair, a QC technical inspector shall document the final inspection on the DA Form 2408-13-3 and update all required historical records for components/modules that affect Aviation Critical Safety Items. The inspector shall also sign the DA Form 2407 (block 37a.) and a DD Form 1574 certifying the serviceability of the component/module.

(6) Do not attach DA Forms 2408-13-3 and DA Form 2408-13-2 to the component/module, or return to the unit requesting the maintenance. File these forms at the field unit, production control, or sustainment facility (depot). Destroy one year after the date entered in block 37c of DA Form 2407 Not Repairable This Station Codes (NRTS).

#### **1-27. Software changes to line replaceable units**

a. Whenever a software modification is applied, the operator, organization, and unit must be able to identify what version or type of software is installed on their systems. Software modifications may be applied by (1) Software Change Package (SCPs), (2) software revisions, (3) software updates, or (4) MWOs/RSNs. Engineering change proposals (ECPs) for software modifications that also require modification of the hardware shall be applied as an MWO/RSN. ECPs that require software-only application shall be applied as an SCP. Record this information on DA Form 2408-5 (Equipment Modification Record) or DA Form 2408-5-1 (Equipment Modification Record (Component)).

b. SCPs upgrade current application software to improve functionality, maintain interoperability in mission-critical LRUs (such as, improved data modem, Embedded Global Positioning System/Inertial Navigation System (EGI), Digital Processor, Processor Assembly, or Digital Imaging Processor). Directions contained in the SCP shall specify who shall accomplish the SCP. Maintain the software configuration control of mission-critical LRUs by displaying the software's

Computer Program Identification Number decal next to the NSN decal and completing the SCP directed forms and records (see App A) in this pamphlet. If the SCP or MWO/RSN does not direct the use of forms and records (see App A), record the information on DA Form 2408-5.

c. Aviation Electronic Systems Equipment/LRUs listed in TB 1-1500-341-01 that contain software are required to submit a DA Form 2410s showing the software version whenever the equipment is gained/lost to the Army inventory, installed on an aircraft, removed from an aircraft, repaired, or the software is upgraded. SCPs should contain an automated DA Form 2410s Program to assist in completing and submitting the DA Form 2410s upon completion of the upgrade process. They also have to be entered on the DA Form 2408-5.

### 1-28. Part source code

The Parts Source code for controlled exchanges is X. This code is used to indicate source data for controlled exchanged repair parts when completing DA Form 2407.

**Table 1-1  
Grounding X conditions for aviation equipment**

Affected Area	Condition
General	An aircraft or UAS equipment fails to meet the operational requirements in accordance with AR 95-1 or AR 95-23. A fault, failure, defect or hazardous condition, actual or potential, that can cause personal injury to the aircrew or ground crew during ground or flight operations, damage to aircraft, components, repair parts or installed related mission equipment or would cause further damage to the aircraft that would affect its airworthiness.
Component or module replacement	The removal and replacement of any component/module assembly is such that improper reinstallation would affect safety-of-flight or create an actual or potential operational hazard. Replacement of a finite life/retirement life/limited time change item was not completed on the due date, flying hours, operating time, or rounds fired, as it applies. When replacement of a component/module or repair part on a calendar time basis was not completed on the due date, after applying the extension listed in TM 1-1500-328-23. Replacement of a time change component or module was not completed on the established flying or component/module operating hours, after applying the allowed extension listed in TM 1-1500-328-23.
Safety-of-flight (SOF Message/TB or MWO)	Safety-of-flight (SOF Message/TB or MWO) Upon receipt of an emergency SOF Message/TB or emergency MWO.
Propeller area	A propeller, propeller blade, or propeller governor is replaced, removed, and reinstalled, or when high revolutions per minute settings or blade angle is reset or adjusted.
Rotor Assemblies	Helicopter rotor assembly (assemblies), controls (main and tail rotor), or any component of these systems is replaced, removed, re-installed, or adjusted.
Engines	Maintenance work is done in the air intake area of gas turbine engines. An aircraft is undergoing an engine change.
Flight or engine control systems	Maintenance is accomplished on, aircraft flight controls and engine throttle control systems and components.
Structural	Upon removal of any airframe structural (stress) panel, component and assembly that affects safety-off light or safe operation of the aircraft or installed mission related equipment.
Egress system	An egress system is partially or completely disassembled. When egress maintenance safety pins (over and above normal aircrew or ground safety pins) are installed to aid maintenance as called for in the maintenance technical manual that applies.
Fuel, oil, hydraulic fluid, or lubricants	Maintenance is performed on the fuel system or any fuel system component while installed on the aircraft or the installed auxiliary power unit. This includes entry into fuel tanks and cells, or installation of plugs or caps on the fuel system or vent lines to facilitate maintenance. When an aircraft is serviced with the wrong type or grade of fuel, oil, hydraulic fluid, or lubricants.
Landing gear, brakes, or power steering	Aircraft landing gear, brakes, or power steering is inoperative or prevents safe accomplishment of all ground and/or flight operations.
Electrical	A jumper wire or other type of electrical shorting device is installed in the electrical system while performing maintenance.
Pitot static	The aircraft pitot static system is inoperative, unreliable, or suspected unreliable.
Oil analysis	A grounding action is taken as a result of an Army Oil Analysis Program (AOAP) laboratory finding.
Rigging pins	Rigging pins are installed.

**Table 1-1  
Grounding X conditions for aviation equipment—Continued**

Affected Area	Condition
Inspections	A scheduled maintenance inspection, such as a phase/periodic inspection is not completed when due by the established flying hour and during the progress of any scheduled maintenance inspection. A special or recurring inspection carried on the DA Form 2408-18 was not completed on the established flying hour, operating time, calendar date, rounds fired, and so on, in accordance with section II, TM 1-1500-328-23.
Weight and balance	Entries on DA Form 2408-13-1 showing temporary changes in aircraft basic weight (not updated on DD Form 365-3) are open beyond 90-days.

**Table 1-2  
Failure codes—alphabetical for field units use only**

Code	Description
717	Accident damage
731	Battle damage
135	Binding, excessive friction, locked, seized
917	Air start failure
070	Alignment improper
109	Arcing, arced
956	ASAM/TB compliance
306	Audio faulty
674	Backfiring
170	Battle damage
675	Bearing or bushing failure
846	Bent
290	Beyond specified tolerance
301	Binding, includes friction excessive, locked
214	Bird strike
311	Blistered
317	Brittle
916	Broken
374	Broken safety wire or key
370	Brush failure/worn excessively
381	Buckled, or twisted
918	Burned, includes charred
537	Burned out
255	Burred
008	Burst, exploded, ruptured
790	Calibration incorrect
804	Capacitance incorrect
799	Chafed
513	Chipped
504	Clogged
690	Collapsed
020	Worn excessively
688	Improper energy response

**Table 1-2**  
**Failure codes—alphabetical for field units use only—Continued**

Code	Description
239	Improper fit, form, function
689	Improper source output
340	Improperly installed
088	Incorrect gain
064	Incorrect modulation
169	Incorrect voltage
923	Inspection required before use
350	Insulation breakdown
081	Interference
360	Intermittent
374	Internal failure
370	Jammed
381	Leaking (liquid)
918	Lightning strike
382	Liquid/vapor lock
383	Lock-on malfunction
730	Loose
385	Loose or missing rivets
105	Loose bolts, nuts, screws
181	Low compression
004	Low GM or emission
537	Low power or torque
092	Low Power (Electronic)
500	Lubrication (over or under) or absent
604	Manifold pressure beyond limits
225	Manufacturer's defect
040	Mechanical binding
372	Metal on magnetic plug
009	Microphonic
253	Misfires
750	Missing
106	Missing bolts, nuts, screws, safety wire
908	Miswired
420	Moisture saturation (condensation)
801	MWO compliance
*798	MWO not applicable
797	MWO previously complied with
425	Nicked
305	No fuel cutoff
367	No indicating lights
022	No oscillation
255	No output/incorrect output

**Table 1-2**  
**Failure codes—alphabetical for field units use only—Continued**

Code	Description
008	Noisy (Chattering)
919	Obsolete part turned in to supply
432	Off frequency
398	Oil consumption excessive
603	Oil in induction system
307	Oil leak
405	Oil pressure incorrect
450	Open
003	Open filament tube circuit
437	Operating error
457	Oscillating
790	Out of adjustment, includes out of tolerance/calibration
461	Output too high
462	Output too low
481	Over heats
021	Over loaded
259	Over size
464	Over speed
927	Pinched
520	Pitted
530	Polarity reversed
263	Poor bonding
964	Poor spectrum
977	Pressure incorrect
540	Punctured
476	Rate of feather slow
**931	Removal of a one time use item
805	Removed for SOF Message or use analysis
804	Removed for scheduled maintenance
803	Removed for TC/RC
567	Resistance high
568	Resistance low
734	Rise time incorrect
324	RPM beta governing faulty
315	RPM fluctuation/incorrect
740	Saturation resistance high
935	Scored
473	Seal/gasket blown
840	Seized
799	Serviceable, no defect
807	Servo mag amp time constant
585	Sheared

**Table 1-2**  
**Failure codes—alphabetical for field units use only—Continued**

Code	Description
196	Shorted
163	Slip ring or commutator failure
640	Slippage
314	Slow acceleration
318	Slow deceleration
159	Smoking
279	Spray pattern defective
271	Sprung
513	Stalls, compressor
329	Starting stall
922	Static display/museum use
928	Stolen or pilfered
921	Storm damage
660	Stripped
945	Structural failure
504	Sudden stoppage, blade/propeller strike
519	Surged
649	Sweep malfunction
695	Sync absent or incorrect
334	Temperature incorrect
664	Tension incorrect
274	Timing off
379	Tooth broken on gear
947	Torn
167	Torque incorrect
816	Total impedance, high
817	Total impedance, low
924	Transportation damage
926	Troubleshooting
925	Turned in to supply (Removed from maintenance trainer aircraft)
561	Unable to adjust limit
670	Unbalanced
275	Undersize
680	Unstable
930	Used for maintenance trainer aircraft
690	Vibration excessive
692	Video faulty
701	Warped
722	Weld Cracked or broken
622	Wet
020	Worn Excessively
950	Wrong part

**Table 1–2**  
**Failure codes—alphabetical for field units use only—Continued**

Code	Description
259	Oversize
263	Poor bonding
473	Seal/Gasket blown
585	Sheared 640 Slippage
159	Smoking
660	Stripped
945	Structural failure
504	Sudden stoppage, blade/propeller strike
334	Temperature incorrect
379	Tooth broken on gear
561	Unable to adjust limits
670	Unbalanced
680	Unstable
690	Vibration excessive
722	Weld cracked or broken
020	Worn excessively

Notes:

<sup>1</sup> This table lists the various codes entered on aviation forms and records referenced in this pamphlet indicating the reason for failure or removal of a component, module, assembly, subassembly, or repair part for use by field units only.

<sup>2</sup> Use these codes as the standard when automating any maintenance function.

<sup>3</sup> Do not assign additional codes unless authorized by DCS, G–4 (DALO–ORR–ER), Pentagon, VA 20310.

**Table 1–3**  
**Failure codes—alphabetical sustainment facility (depot) and repair facilities**

Code	Description
717	Accident damage
127	Battle damage
002	Binding, excessive friction, locked, seized
128	Air start failure
031	Alignment improper
007	Arcing, arced
998	ASAM/AMAM/SOF compliance
693	Audio faulty
129	Backfiring
731	Battle damage
710	Bearing or bushing failure
780	Bent
705	Beyond specified tolerance
135	Binding, includes friction excessive, locked
917	Bird strike
050	Blistered
060	Brittle
070	Broken



**Table 1-3  
Failure codes—alphabetical sustainment facility (depot) and repair facilities—Continued**

Code	Description
108	Broken safety wire or key
720	Brush failure/worn excessively
109	Buckled or twisted
900	Burned, includes charred
080	Burned out
171	Burred
111	Burst, exploded, ruptured
024	Calibration incorrect
025	Capacitance incorrect
120	Chafed
910	Chipped
180	Clogged
027	Collapsed
929	Component removal per DMWR
800	Component removed/reinstalled to facilitate other maintenance
956	Computer equipment malfunction
949	Computer memory error/defect
160	Contact/connection defective
306	Contamination
674	Controlled exchange
114	Controls inoperative
844	Corona effect
170	Corroded
190	Cracked
675	Crash damage
845	Crystallized
029	Current incorrect
116	Cut
846	Delaminated
200	Dented
210	Detent action poor
117	Deteriorated
230	Dirty
118	Disconnected
201	Distortion
235	Dry
293	Electrical power loss
295	Electromagnetic environmental effect (E3) Electronic interference/discharge
231	Elongated
802	Equipment previously modified, restored to original
234	Excessive G forces
015	Excessive noise (electronics)

**Table 1–3  
Failure codes—alphabetical sustainment facility (depot) and repair facilities—Continued**

Code	Description
508	Exposed to fire/high temperature
507	Exposed to salt water environment
290	Fails Diagnostic/automatic tests
051	Fails to tune or drifts
602	Failure caused by other component failure
281	Faulty reading
055	Feedback incorrect
240	Flaking
069	Flame out
037	Fluctuates, unstable
301	Foreign object damage
250	Frayed
748	Frequency, erratic or incorrect
179	Fuel pressure incorrect
280	Fungus effect
472	Fuse blown
061	Fused, includes melted
001	Gassy
214	Grooved
300	Grounded
311	Hard landing
855	Heat damage
320	High voltage breakdown
065	High VSWR
079	Hot firing damage
317	Hot start
248	Icing
942	Illegal operation or address
916	Impending or incipient failure indicated by spectrometric oil analysis
703	Improper amplitude
627	Improper attenuation
688	Improper energy response
239	Improper fit, form, function
689	Improper source output
340	Improperly installed
088	Incorrect gain
064	Incorrect modulation
169	Incorrect voltage
923	Inspection required before use
350	Insulation breakdown
081	Interference
360	Intermittent

**Table 1-3  
Failure codes—alphabetical sustainment facility (depot) and repair facilities—Continued**

Code	Description
374	Internal failure
370	Resistance high
381	Leaking (liquid)
918	Lightning strike
382	Liquid/vapor lock
383	Lock-on malfunction
730	Loose
385	Loose or missing rivets
105	Loose bolts, nuts, screws
181	Low compression
004	Low GM or emission
537	Low power or torque
902	Low power (electronic)
500	Lubrication (over or under) or absent
604	Manifold pressure beyond limits
225	Manufacturer's defect
040	Mechanical binding
372	Metal on magnetic plug
009	Micro phonic
253	Misfires
750	Missing
106	Missing bolts, nuts, screws, safety wire
908	Miswired
420	Moisture saturation (condensation)
801	MWO/RSN compliance
798	MWO/RSN not applicable
797	MWO/RSN previously complied with
425	Nicked
305	No fuel cutoff
367	No indicating lights
022	No oscillation
255	No output/incorrect output
008	Noisy (chattering)
941	Nonprogrammed halt
919	Obsolete part turned in to supply
432	Off frequency
398	Oil consumption excessive
603	Oil in induction system
307	Oil leak
405	Oil pressure incorrect
450	Open
003	Open filament tube circuit

**Table 1–3  
Failure codes–alphabetical sustainment facility (depot) and repair facilities—Continued**

Code	Description
437	Operating error
948	Operator error
457	Oscillating
790	Out of adjustment, includes out of tolerance/calibration
461	Output too high
462	Output too low
481	Overheats
021	Overloaded
259	Oversize
464	Over speed
927	Pinched
520	Pitted
530	Polarity reversed
263	Poor bonding
964	Poor spectrum
977	Pressure incorrect
540	Punctured
476	Rate of feather slow
931	Removal of a one-time use item
805	Removed for SOF Message or use analysis
804	Removed for scheduled maintenance
803	Removed for TC/RC
567	Resistance high
568	Resistance low
734	Rise time incorrect
324	RPM beta governing faulty
315	RPM fluctuation/incorrect
740	Saturation resistance high
935	Scored
473	Seal/gasket down
840	Seized
799	Serviceable, no defect
807	Servo mag amp time constant
585	Sheared
196	Shorted
163	Slip ring or commutator failure
640	Slippage
314	Slow acceleration
318	Slow decleration
159	Smoking
279	Spray pattern defective
271	Sprung

**Table 1-3  
Failure codes—alphabetical sustainment facility (depot) and repair facilities—Continued**

Code	Description
513	Stalls, compressor
329	Starting stall
922	Static display/museum use
928	Stolen or pilfered
921	Storm damage
660	Stripped
945	Structural failure
504	Sudden stoppage, blade/propeller strike
519	Surged
649	Sweep malfunction
695	Sync absent or incorrect
334	Temperature incorrect
664	Tension incorrect
274	Timing off
379	Tooth broken on gear
947	Torn
167	Torque incorrect
816	Total impedance, high
817	Total impedance, low
924	Transportation damage
926	Troubleshooting
925	Turned in to supply (removed from maintenance trainer aircraft
561	Unable to adjust limit
939	Unable to load program
670	Unbalanced
275	Undersize
680	Unstable
930	Used to maintenance trainer aircraft
690	Vibration excessive
692	Video faulty
701	Warped
722	Weld cracked or broken
622	Wet
020	Worn excessively
950	Wrong part

Notes:

<sup>1</sup> This table lists the various codes entered on aviation forms and records referenced in this pamphlet indicating the reason for failure or removal of a component, module, assembly, subassembly, or repair part for use by sustainment facility (depots) and repair facilities. These codes are also used for removal of an item to accomplish a maintenance action, to indicate that a maintenance action is pending, that the item is used for static display, or used for training purposes.

<sup>2</sup> Use these codes as the standard when automating any maintenance function.

<sup>3</sup> Do not assign additional codes unless authorized by DCS, G-4 (DALO-ORR-ER), Pentagon, VA 20310.

**Table 1–4**  
**Failure codes—numerical for field units use only**

Code	Description
008	Noisy
020	Worn excessively, deteriorated, stripped
070	Broken, cracked, sheared
109	Buckled, bent, twisted, warped
135	Binding, excessive friction, locked, seized
170	Corroded, pitted
214	Grooved, scored
255	No output, incorrect output
290	Fails diagnostic, automatic tests
301	Foreign object damage
306	Contamination
311	Hard landing
317	Hot start
370	Jammed
374	Internal failure, bearing, and/or bushing failure
381	Leaking
504	Sudden stoppage, blade or propeller strike
513	Stalls, compressor
537	Low power or torque
674	Controlled exchange
675	Crash damage
690	Vibration excessive
717	Accident, storm damage
731	Battle damage
790	Out of adjustment, out of tolerance or calibration, tension incorrect, unbalanced
799	Serviceable, no defect
804	Removed for scheduled maintenance
846	Delaminated, debonded
916	Impending or incipient failure indicated by spectrometric oil analysis
917	Bird strike
918	Lightning strike
956	Computer equipment malfunction

Notes:

<sup>1</sup> This table lists the various codes entered on aviation forms and records referenced in this pamphlet indicating the reason for failure or removal of a component, module, assembly, subassembly, or repair part for use by field units only.

<sup>2</sup> Use these codes as the standard when automating any maintenance function.

<sup>3</sup> Do not assign additional codes unless authorized by DCS, G–4 (DALO–ORR–ER), Pentagon, VA 20310.

**Table 1-5  
Failure codes—numerical sustainment facility (depot) and repair facilities**

Code	Description
001	Gassy
002	Air leak
003	Open filament tube circuit
004	Low GM or emission
007	Arcing, arced
008	Noisy (chattering)
009	Micro phonic
015	Excessive noise (electronics)
020	Worn excessively
021	Overloaded
022	No oscillation
024	Calibration incorrect
025	Capacitance incorrect
027	Collapsed
029	Current incorrect
031	Alignment improper
037	Fluctuates and/or unstable
040	Mechanical binding
050	Blistered
051	Fails to tune or drifts
055	Feedback incorrect
060	Brittle
061	Fused, includes melted
064	Incorrect modulation
065	High VSWR
069	Flame out
070	Broken
079	Hot firing damage
080	Burned out
081	Interference
088	Incorrect gain
092	Low power (electronic)
105	Loose bolts, nuts, screws
106	Missing bolts, nuts, screws
108	Broken safety wire or key
109	Buckled or twisted
111	Burst, exploded, ruptured
114	Controls inoperative
116	Cut
117	Deteriorated
118	Disconnected

**Table 1-5**  
**Failure codes—numerical sustainment facility (depot) and repair facilities—Continued**

Code	Description
120	Chafed
127	Adjustment improper
128	Air start failure
129	Backfiring
135	Binding, includes friction excessive, locked
159	Smoking
160	Contact/connection defective
163	Slip ring or commutator failure
167	Torque incorrect
169	Incorrect voltage
170	Corroded
171	Burred
179	Fuel pressure incorrect
180	Clogged
181	Low compression
190	Cracked
196	Shorted
200	Dented
201	Distortion
210	Detent action poor
214	Grooved
225	Manufacturer's defect
230	Dirty
231	Elongated
234	Excessive G forces
235	Dry
239	Improper fit, form, function
240	Flaking
248	Icing
250	Frayed
253	Misfires
255	No output and/or incorrect output
259	Oversize
263	Poor bonding
271	Sprung
274	Timing off
275	Undersize
279	Spray pattern defective
280	Fungus effect
281	Faulty reading
290	Fails diagnostic/automatic tests
293	Electrical power loss



**Table 1-5  
Failure codes—numerical sustainment facility (depot) and repair facilities—Continued**

Code	Description
295	Electromagnetic environmental effect (E3) Electronic interference/discharge
300	Grounded
301	Foreign object damage
305	No fuel cutoff
306	Contamination
307	Oil leak
311	Hard landing
314	Slow acceleration
315	RPM fluctuation/incorrect
317	Hot start
318	Slow deceleration
320	High voltage breakdown
324	RPM beta governing faulty
329	Starting stall
334	Temperature incorrect
340	Improperly installed
350	Insulation breakdown
360	Intermittent
367	No indicating lights
370	Jammed
372	Metal on magnetic plug
374	Internal failure
379	Tooth broken on gear
381	Leaking (liquid)
382	Liquid/vapor lock
383	Lock-on malfunction
385	Loose or missing rivets
398	Oil consumption excessive
405	Oil pressure incorrect
420	Moisture saturation (condensation)
425	Nicked
432	Off frequency
437	Operating error
450	Open
457	Oscillating
461	Output too high
462	Output too low
464	Over speed
472	Fuse blown
473	Seal/gasket blown
476	Rate of feather slow
481	Overheats

**Table 1–5**  
**Failure codes—numerical sustainment facility (depot) and repair facilities—Continued**

Code	Description
500	Lubrication (over or under) or absent
504	Sudden stoppage, blade/propeller strike
507	Exposed to salt water environment
508	Exposed to fire/high temperature
513	Stalls, compressor
519	Surged
520	Pitted
530	Polarity reversed
537	Low power or torque
540	Punctured
561	Unable to adjust limit
567	Resistance high
568	Resistance low
585	Sheared
602	Failure caused by other component failure
603	Oil in induction system
604	Manifold pressure beyond limits
622	Wet
627	Improper attenuation
640	Slippage
649	Sweep malfunction
660	Stripped
664	Tension incorrect
670	Unbalanced
674	Controlled exchange
675	Crash damage
680	Unstable
688	Improper energy response
689	Improper source output
690	Vibration excessive
692	Video faulty
693	Audio faulty
695	Sync absent or incorrect
701	Warped
703	Improper amplitude
705	Beyond specified tolerance
710	Bearing or bushing failure
717	Accident damage
720	Brush failure and/or worn excessively
722	Weld cracked or broken
730	Loose
731	Battle damage

**Table 1-5  
Failure codes—numerical sustainment facility (depot) and repair facilities—Continued**

Code	Description
734	Rise time incorrect
740	Saturation resistance high
748	Frequency, erratic, or incorrect
750	Missing
780	Bent
790	Out of adjustment, includes out of tolerance/calibration
797	MWO/RSN previously complied with
798	MWO/RSN not applicable
799	Serviceable, no defect
800	Component removal/installation to facilitate other maintenance
801	MWO/RSN application
802	Equipment previously modified, restored to original
803	Removed for time change/retirement change
804	Removed for scheduled maintenance
805	Removed for Safety of Flight Msg/use/analysis
807	Servo mag amp time constant
816	Total impedance, high
817	Total impedance, low
840	Seized
844	Corona effect
845	Crystallized
846	Delaminated
855	Heat damage
900	Burned, includes charred
908	Miswired
910	Chipped
916	Impending or incipient failure indicated by spectrometric oil analysis
917	Bird strike
918	Lightning strike
919	Obsolete part turned in to supply
921	Storm damage
922	Static display and/or museum use
923	Inspection required before use
924	Transportation damage
925	Turned in to supply (removed from maintenance trainer aircraft)
926	Troubleshooting
927	Pinched
928	Stolen or pilfered
929	Component removal per DMWR
930	Used for maintenance trainer aircraft
931	Removal of a one-time use item
935	Scored

**Table 1-5**  
**Failure codes—numerical sustainment facility (depot) and repair facilities—Continued**

Code	Description
939	Unable to load program
941	Nonprogrammed halt
942	Illegal operation or address
945	Structural failure
947	Torn
948	Operator error
949	Computer memory error and/or defect
950	Wrong part
956	Computer equipment malfunction
964	Poor spectrum
977	Pressure incorrect
998	ASAM compliance

Notes:

<sup>1</sup> This table lists the various codes entered on aviation forms and records referenced in this pamphlet indicating the reason for failure or removal of a component, module, assembly, subassembly, or repair part for use by sustainment facility (depot) and repair facilities. These codes are also used for removal of an item to accomplish a maintenance action, to indicate that a maintenance action is pending, that the item is used for static display, or used for training purposes.

<sup>2</sup> Use these codes as the standard when automating any maintenance function.

<sup>3</sup> Do not assign additional codes unless authorized by DCS, G-4 (DALO-ORR-ER), Pentagon, VA 20310.

**Table 1-6**  
**When discovered codes**

Code	Description
B	Handling
D	Sustainment facility (depot) level repair/overhaul/rebuild
E	Storage
G	Flight
H	Phase maintenance inspection (PMI, PPM, PMS2/3 and Reset)
J	Calibration
K	Unscheduled maintenance
L	Maintenance operational check
M	Maintenance test flight and/or functional check flight
N	AOAP results
O	Special inspection, scheduled maintenance
P	Diagnostic test (health and usage monitoring device and/or system)
Q	Servicing
R	Rearmament
S	Reconfiguration
T	Preflight inspection
U	Thru flight inspection
V	Post-flight inspection
W	Acceptance inspection
X	Daily/PMS/PMS1 inspection
Y	Intermediate inspection
Z	Periodic inspection

Note: Use these codes to record when the fault or failure was discovered.

**Table 1–7**  
**How recognized codes**

Code	Description
A	Aerodynamic and/or vibration
B	Audio and/or hearing
C	Standard cockpit instruments
D	Onboard test equipment (health and usage monitoring device and/or system)
F	Ground support test equipment
G	Visual
H	Odor
K	Feel
M	Off aircraft maintenance (component repair)
O	Special inspection, scheduled maintenance

Note: Use these codes to record how the fault was recognized.

**Table 1–8**  
**Malfunction effect codes**

Code	Description
1	No malfunction
2	No effect
3	Partial failure
4	Reduced performance
5	Mission abort
6	Precautionary landing
7	Forced landing
8	Incident and/or accident
9	Off aircraft maintenance (component repair)

Note: Use these codes to record how the malfunction affected the mission.

**Table 1–9**  
**System codes**

Code	Description
A	Aircraft
W	Armament (to include weapons delivery sensors)
E	Electronic (for example, ASE, communication equipment, navigation equipment)
O	Other
H	Hoist
U	UAS ground control equipment
P	UAS payload

Note: Use these codes to record the system affected when the aviation forms use a system code (see chaps 3 and 5).

**Table 1–10  
DA Form 2408–18 (frequency codes)**

Code	Description
H	Aircraft hours
D	Days
M	Months
Y	Years
R	Rounds
F	Hot section factors
C	Cycles
S	Starts
A	APU operating hours
P	APU starts

Note: Use these codes to record the system affected when the aviation forms use a system code (see chaps 3 and 5).

**Table 1–11  
Maintenance action codes**

Code	Description
A	Replaced. Use when an item (repair part, component, etc.) is removed and replaced concurrently (or later) by a like or an equal item (except for gun, see code X). For avionics, when the equivalent item changes the avionics system designation, use action codes "R" and "S" instead of action code "A."
B	Adjusted. Use when tightening, adjusting, bleeding, rigging, or activating reset buttons, switches, regulating, and so on.
C	Repaired. Use when a repairable item is repaired. This shall include, but not limited to, disassembly, cleaning related to repair action, inspection, adjustment, internal lubrication, replacement of integral parts, assemblies and subassemblies, and welding. Does not include overhaul/rebuild.
D	Manufacture/fabrication of repair parts. Use when repair parts are manufactured or fabricated from stock. This shall include but limited to such items as hydraulic tubes, lines, hoses, and noncritical airframe members and brackets.
E	Services. This code is used to report all service actions performed by maintenance personnel, to include, but not be limited to compliance with lube orders, performance of PMSs.
F	Initial inspection. Use when inspecting items to establish maintenance action(s) needed to return item to serviceable status.
G	Final inspection. Use when inspecting items to determine acceptability of maintenance accomplished.
H	MWO/RSN. Use to identify the application of MWOs/RSNs.
I	Corrosion removal/clean/wash.
J	Tested. Use when performing diagnostic or mechanical tests that are used to measure the performance of an item against established serviceability/technical standards.
K	In process inspection.
L	Removed and installed. Use when an item is removed for any reason and the same item is reinstalled.
M	Checked NRTS. Use when an item is checked or tested and it is determined "Not Repairable at this station." Local policy may prescribe use of NRTS codes in table 1-17.
N	Checked not repairable. Use when an item is checked or tested and it is determined nonrepairable. This code applies also for items beyond economic repair limitations.
O	Overhauled/Rebuilt/Remanufactured.
P	Checked Serviceable. Use for items checked or tested and no repair is required. Only applies if it is determined a reported fault does not exist or is not duplicated.
Q	MWO/RSN Removal. Use to identify removal of a MWO/RSN as a result of canceling the MWO/RSN requirement.
R	Removed. Use this code when an item is removed and only the removal time is counted.
S	Installed. Use when an item is installed and only the installation time counted.

**Table 1–11  
Maintenance action codes—Continued**

T	SOF/ASAM/AMAM/SOU Compliance. Use to identify compliance with instructions in a cited SOF/ASAM/AMAM or SOU.
U	Decontamination.
W	Hour Meter Change. Use to indicate replacement of an hour meter.
X	Gun Change. Use to report replacement of a gun.
Y	Special Mission Alteration (SMA), apply/applied.
1	Servicing Scheduled (aircraft only). Use when servicing actions include replenishment or removal of consumable items used during flight operations (such as fuel, oil, water, alcohol, hydraulic fluid, oxygen, air, nitrogen, ammunition, bombs, etc.) is accomplished at intervals specified in maintenance manuals and or inspection checklists that apply.
2	Servicing unscheduled (aircraft only). Use this code when servicing actions, include replenishment or removal of consumable items used during flight operations (such as fuel, oil, water, alcohol, hydraulic fluid, oxygen, air, nitrogen, ammunition, etc.), are accomplished at unspecified intervals.
3	PMD, PMS or PMS1 (aircraft only). Use this code to report accomplishment of the visual portion of an inspection. Use other action codes for related corrective actions as they apply.
4	Maintenance test flight/Maintenance operational check (aircraft only).
5	Preventive Maintenance. Periodic, Phase maintenance (aircraft only). Use this code to report accomplishment of the visual portion of an inspection. Use other action codes for related corrective actions as they apply.
6	Special Inspection (aircraft only). Use this code when a specific action or inspection called for is not otherwise covered. Use this code for recording temporary storage inspections. Only use this code for the visual inspection effort. Use other action codes for related corrective actions as they apply. Do not use this code instead of codes 3 or 5.
7	Ground Handling (aircraft only). Use this code for ground support actions such as towing, jacking, parking, removal or installation of ground safety pins, mooring, etc.
8	Maintenance actions unable to perform (SAMS Unique)
9	Modification by replacement

Note: Use these codes to record maintenance actions taken on an item when completing DA Form 2407 and other aviation maintenance forms and records (see chaps 3 and 5).

**Table 1–12  
Functional group codes**

Code	Description
00	Aircraft and/or UAS
02	Airframe
03	Landing gear
04	Power plant
05	Rotor system
06	Drive system
07	Hydraulics/Pneudraulics
08	Instrument system
09	Electrical
10	Fuel system
11	Flight control system
12	Utility system
13	Environmental control system
14	Hoists and winches
15	Auxilliary power plant
16	Mission equipment
17	Emergency equipment

**Table 1–12**  
**Functional group codes—Continued**

Code	Description
19	Avionics
30	Armament subsystem
31	Fire control subsystem
32	Hellfire subsystem
33	Target acquisition designation sight (TADS) assembly
34	Pilot night vision sensor (PNVS) assembly
35	Area weapon system
36	Other weapon system
37	Fire control and/or radar
38	Symbol generation
39	IHADSS (Integrated Helmet and Display Sighting System)
52	Auto pilot system
76	Electronics countermeasures
80	Special tools
82	Flyaway items
83	Ground support items
84	Ground control station
85	Launcher and recovery trailer
86	Portable ground control station
87	Ground data terminal
88	Portal ground data terminal
89	Tactical automatic landing system
90	Remote video terminal

Note: Use these codes to record the functional group of the aircraft and subsystems of the fault or maintenance action completed when called for on maintenance forms and records (see chaps 3 and 5).

**Table 1–13**  
**Utilization codes**

Code	Description
0	Active Components (except as otherwise listed)
1	Sustainment facility (depot) Stock
2	Post supply activities
4	Operational readiness float (ORF)
5	Installation maintenance and service equipment
6	Customs Department/Border Patrol
7	Army National Guard, except mobilization and training equipment sites (Mates)
8	Army National Guard (Mates)
9	Air Force National Guard units
A	Army Reserve units, except equipment pools
B	Army Reserve units, equipment pools
C	Air Force Reserve
D	Army ROTC



**Table 1-13**  
**Utilization codes—Continued**

Code	Description
E	Air Force ROTC
G	Defense Atomic Support Agency
H	Army Intelligence and Security Command
J	Defense Communications Security Agency
K	U.S. Army Training and Doctrine Command
L	U.S. Army Test and Evaluation Command
M	Civilian support units
N	Prepositioned stock except AWRPS
P	Sustainment facility (depot) installation equipment
Q	Equipment assigned to service schools and training centers
R	Military Assistance Program (MAP)
S	Overhaul facility, military
T	Overhaul facility, commercial
U	Manufacturing facility
V	Passenger-Carrying and General Purpose
W	Equipment assigned National Training Centers
X	Repair cycle float (RCF)
Y	Army War Reserve Prepositioned Sets (AWRPS)

**Table 1-14**  
**Time conversion codes**

Minutes	Parts of hour
0	0.0
1-6	0.1
7-12	0.2
13-18	0.3
19-24	0.4
25-30	0.5
31-36	0.6
37-42	0.7
43-48	0.8
49-54	0.9
55-60	1.0

Note: Time called for in man-hour, flight hour, component operating hours, and etc. blocks of DA Forms contained in this document are reported in hours and tenths of hours. When entering hours or tenths of hours on forms a zero is entered on either side of the decimal; for example, 2.0 when entering full hours or 0.7 when entering tenths of hours.

**Table 1–15  
Equipment loss codes**

Code	Description
D	Loss through mutilation, for example, cutting, crushing, melting, burning, alteration and to prevent reuse for original intended purpose.
E	Loss due to disassembly of a reportable integrated set assembly.
F	Component and/or module or repair parts formerly designated by TB 1–1500–341–01 as a tracked item that no longer require tracking using DA Form 2410.
I	Combat loss (abandoned, captured, or destroyed).
J	Turned in to Defense Reutilization and Marketing Office or salvage point.
K	Shipped to other (non-Army) Government, departments, agencies, services, foreign military sales or Security/MAP countries.
L	Physical loss other than combat (pilferage and theft)
M	Identification loss, for example, NSN, or P/N redesignation (change) resulting from a conversion or modification through an approved MWO, RSN, DMWR, engineering change or process, to include re-designations not involving maintenance.
N	Identification loss integrated into a set assembly or system; or a change of equipment serial number or registration number.
V	Used for static displays and museums within the Army. When no longer used in this capacity, process item in accordance with TM 1-1500-328-23.
W	Used for static displays and museums located outside the Army.
X	Used for training purposes on an MTA, as a dynamic training device, or isolated aeronautical element. Overhaul TBO components and/or modules and inspect retirement change or CC items at a sustainment facility (depot) before using on flyable aircraft (see TM 1–1500–328–23).
Z	Unit reconciliation

**Table 1–16  
Equipment gain codes**

Code	Description
A	Gain of new item to Army inventory. Limited to gains from new procurement and/or manufacture. Includes new manufactured items with a later NSN or P/N on items already listed in TB 1–1500–341–01.
C	Gain of items from static displays, museums, or training aircraft (see TM 1–1500–328–23).
F	Gain of an individual reportable item as a result of disassembly of an integrated set and/or assembly.
P	Combat gain (recaptured or recovered)
Q	Reclaimed from DRMS or cannibalization point.
R	Received from other (non-Army) governments, departments, agencies, services, or Security/MAP countries.
S	Identification gain, for example, NSN, or PN re-designation (change) resulting through an approved MWO, RSN, engineering change, or process, to include redesignations not involving maintenance.
T	Identification gain integrated set assembly with new NSN or a change of equipment serial number or registration number.
U	To show the first DA Form 2410 reporting on items added to TB 1–1500–341–01 by message, publication revision or to show the first DA Form 2410 report on a used item requiring reporting that was never previously reported. Does not include items manufactured with the same or later NSN or P/N and not yet inducted into the Army inventory. These items shall reflect an "A" gain code when accepted.

**Table 1–17**  
**Not reparable this station codes**

Code	Description
1	Bench checked NRTS, repair not authorized. Enter this code when the shop is not authorized to accomplish the repair. Do not use this code unless current technical directives specifically prohibit the repair of the item.
2	Bench checked NRTS, lack of equipment, tools, or facilities. Enter this code when repair accomplishment is not possible due to a lack of equipment, tools, or facilities. Lack of authorization for the required tools, equipment, or facilities does not preclude use of this code.
3	Bench checked, NRTS, lack of technical skills. This code shall be entered when repair accomplishment is not possible due to lack of technically qualified people.
4	Bench checked, NRTS, lack of parts. Enter this code when parts are not available to accomplish the repair.
5	Bench checked, NRTS, shop backlog. Enter this code when the repair is not accomplished due to excessive shop backlog.
6	Bench checked, NRTS, lack of technical data. Enter this code when the repair accomplishment is not possible due to a lack of maintenance manuals and drawings that describe detailed repair procedures and requirements.
7	Bench checked, NRTS, excess to base requirements. Enter this code when the repair is not scheduled in the shop because the item is excess to base requirements.
8	This code is not used.
9	Bench checked, condemned. Enter this code when the item is not reparable and is processed for condemnation, reclamation or salvage. Also use this code when a "condemned" condition is discovered during support maintenance disassembly or repair.

**Table 1–18**  
**Type maintenance request code (type MNT req CD) or repair**

Code	Description
1	Return to user. Maintenance actions were required and the equipment was returned to the user.
2	Modification Normal. A modification, special purpose alteration, or special mission alteration application is required on a piece of equipment.
3	Modification Emergency/Urgent. An emergency/urgent modification or safety recall order requires application to an item or piece of equipment.
6	Cosmetic Maintenance. Indicates body and fuselage work, painting and other aircraft surface work.
7	Sample Data Collection. Data provided by user in response to query by support maintenance.
8	Usage Device Change. Data recorded by unit to support unit upon change of a usage-recording device (miles, rounds, hours, cycles, hot section factors, counts, starts).
9	Production. A work request that applies to more than one item usually controlled by a maintenance control number, when a production-line type of operation is applied.
A	Estimated Cost of Damages. A request for inspection to identify cost of repairs of a specific damage, as in an accident.
B	Army Working Capital Fund (AWCF) outsourcing, sub or alternate contracting. A request for an AWCF-funded item utilizing an outsourced activity or a sub or alternate contractor source of repair for funding accountability.
C	Classification. A request for the performance of an inspection to determine the classification code for turn in to the supply system.
D	Reparable Exchange. A request for the repair of items in support of a reparable exchange (RX) program.
F	Return to stock. A work request indicating periodic maintenance is needed.
G	AWCF organic disassembly/ reclamation/ assembly. Disassembly of an existing asset to reclaim sub components for repair, restoration, conversion or modification. Also used by assembling serviceable assets into a higher order assembly, for example, wheel assembly.
H	Recall maintenance. Actions identified and scheduled in advance.
I	AWCF contractor disassembly/reclamation/assembly. Disassembly of an existing asset to reclaim sub components for repair, restoration, conversion, or modification. Also used for assembling serviceable assets into a higher order assembly.
J	Component Change. Data recorded by a customer unit upon change.

**Table 1–18**  
**Type maintenance request code (type MNT req CD) or repair—Continued**

Code	Description
K	Oil-Analysis Recommendation. The maintenance request is generated as the result of an oil-analysis laboratory recommendation.
L	AWCF reimbursable work order repaired by an organic labor force under a specialized repair authority.
M	Operation and Maintenance, Army funded work order repaired by an organic labor force under a specialized repair authority.
N	AWCF reimbursable work order repaired by a contractor labor force under a specialized repair activity.
O	Operation and Maintenance, Army funded work order repaired by a contractor labor force under a specialized repair authority.
P	AWCF Organic Repairable. A request for the repair of an AWCF funded item by an organic GS or AVIM labor source.
Q	AWCF Organic Repairable. A request for the repair of an AWCF funded item by an organic DS or AVUM labor source.
R	AWCF Organic equipment change package with NSN change. A request for modernization of an AWCF funded item by an organic labor source, which results in an NSN change.
S	AWCF Organic equipment change package with no NSN change. A request for modernization of an AWCF funded item by an organic labor source, which results in no NSN change.
T	AWCF Contractor Repairable. A request for the repair of an AWCF funded item by a contractor GS or AVIM labor source.
U	AWCF Contractor Repairable. A request for the repair of an AWCF funded item by a contractor DS or AVUM labor source.
V	AWCF contractor equipment change package with NSN change. A request for the modification of an AWCF funded item by a contractor labor source, which results in an NSN change.
W	AWCF contractor equipment change package with no NSN change. A request for the modification of an AWCF funded item by a contractor labor source, which results in no NSN change.
X	AWCF DS/GS Military training support repair programs.
Y	AWCF organic production verification and/or certification, pilot validation/verification, and special testing. A check to ensure that the requisite special tools, test equipment, skills, facilities, and parts are present to permit repair of an asset to the national standard. To perform special required test.
Z	AWCF contractor production verification and/or certification, pilot validation/verification, and special testing. A check to ensure that the requisite special tools, tests equipment, skills, facilities, and parts are present to permit repair of an asset to the national standard. To perform special required test.

Note: These codes are used to describe the maintenance action requested. These codes are applicable to DA Form 2407. (SAMS unique)

**Table 1–19**  
**Work request status codes**

Code	Description
A	Awaiting initial inspection. Includes initial inspection, acceptance, and parts determination. Can be used at unit level. At support level, an "A" is usually entered first unless preceded by a "9".
B	In Shop.
C	Awaiting Shop. The initial and acceptance inspections are complete and parts are on hand.
D	Deferred. Equipment in use, awaiting scheduled maintenance (may or may not) awaiting parts and not considered high priority in that equipment is operating but requires some maintenance or modification. Can be used at unit level. Normally used in conjunction with a non-mission capable (NMC) ORG WON. Can be used with NMC ORG WON if preceded by a "2."
E	Awaiting Final Inspection.
F	Final Inspection Complete. Includes final inspection and work order/log book completion. NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
G	Test flight, or maintenance operational check. NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
H	Awaiting Disposition instructions from a higher source.

**Table 1-19**  
**Work request status codes—Continued**

Code	Description
I	Awaiting Shop while Awaiting non-NMC (not NMCS) parts. Do not use if the due-in parts are NMCS. Normally used in conjunction with a non-NMC ORG WOG. Can be used with a NMC ORG WON is preceded by a "2".
J	In Shop Awaiting NMCS Parts, Work Continues. When this code is used, the calculation for NMCS/NMCM shall remain in NMCM. This code is used for aircraft and other items requiring maintenance.
K	Awaiting non-NMC Parts (Not NMCS). No further repair actions are made because parts are not available in shop supply. Normally used in conjunction with a non-NMC ORG WON. Can be used with a NMC ORG WON if preceded by a "2".
L	EVAC NMCS. Item that was evacuated to another maintenance activity for repair and return and is now in an NMCS status at the other activity. NMC time is applied to SUPPORT NMCS.
M	EVAC NMCM. Items evacuated to another maintenance activity for repair and return. NMC time is applied to support NMCM.
N	EVAC Sustainment facility (depot). Equipment that is in a sustainment facility (depot), or in for sustainment facility (depot) level repair, that is, overhaul/MWO is being performed. NMC time is applied to NMCD for ground/missile and aviation sub-system records and reportable end items. Aviation system records reflect PMCD.
O	Awaiting Evacuation. Allows printing of automated DA Form 2407 at support level.
P	NMC for lack of facility, tools, test equipment or the completion of intra-shop work request.
Q	Waiting Estimated Cost of Damage (ECOD) Actions. Items awaiting release of surveying officer before starting repairs.
R	Awaiting Pickup. Item was repaired or appropriate action taken. Owning unit was notified and item is a waiting pickup. Before using code "R", close the work request. If the item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
S	Closed. Completed by this Maintenance Activity. Repairs are completed by the support activity receiving the end item or component. Work request is closed. If the item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
T	Closed, Completed by Other Maintenance Activity. Repairs were completed and returned by the other activity to the support activity. Work request is closed. If the item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
U	Picked Up (must be closed first). a. At Unit Level--Closed the ORG WON. Close all related records on the Inoperative Equipment File. All inoperative time stops. b. At AVIM level--Picked up by customer. Delete the support work order number and all related direct support work orders from SAMS-1 during the next weekly process.
V	Closed requirement satisfied by ORF exchange. Requires the new serial number. The SAMS-1 system automatically prompts the user for a new serial number. If item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
W	Work request closed. Pending turn-in as uneconomically repairable or non-repairable (classification). If the item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
X	Work request closed. It exceeds time limits or maintenance capability (classification example: code F). If the item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
Y	Work request closed. It did not meet acceptable standards. If the item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
Z	Work request closed or cancelled without completion (example: initial inspection was not started). If the item is NMC, NMC time is charged to the owning unit until the NMC fault is corrected and a "U" status is posted at unit level.
0 (zero)	Begin NMCE time. Code used at unit level (system generated) and not entered by the user. ULLS unique code.
1	Awaiting dead lining NMCS parts. No further repairs are made because of a lack of parts in shop supply.
5	Scheduled services. Carry equipment that is in shop for scheduled services.
6	Re-inspection. Can only be used after a work request status code of 8 rework.
7	Awaiting Float Transaction.
8	Rework Return to Shop. If work request is "S" through "Z", an 8 must be used before the job is returned to working status.
9	Begin in transit time.

Note: These codes indicate the status of an individual work request as it progresses through maintenance shops. These codes are applicable to all SAMS and ULLS maintenance forms (see chaps 3 and 5) having a "STA" block. (SAMS unique).

**Table 1–20**  
**The metric system and equivalents**

Symbol	When you know	Multiply by	To find	Symbol
<b>Length</b>				
in	inches	2.54	centimeters	cm
ft	feet	30.0	centimeters	cm
yd	yards	0.9	meters	m
mi	miles	1.6	kilometers	km
mm	millimeters	0.04	inches	in
cm	centimeters	0.4	inches	in
m	meters	3.3	feet	ft
m	meters	1.1	yards	yd
km	kilometers	0.62	miles	mi
<b>Area</b>				
in <sup>2</sup>	square inches	6.5	square centimeters	cm <sup>2</sup>
ft <sup>2</sup>	square feet	0.09	square meters	m <sup>2</sup>
yd <sup>2</sup>	square yards	0.8	square meters	m <sup>2</sup>
mi <sup>2</sup>	square miles	2.6	square kilometers	km <sup>2</sup>
	acres	0.4	hectares	ha
cm <sup>2</sup>	square centimeters	0.16	square inches	in <sup>2</sup>
m <sup>2</sup>	square meters	1.2	square yards	yd <sup>2</sup>
km <sup>2</sup>	square kilometers	0.4	square miles	mi <sup>2</sup>
ha	hectares (10,000 M2)	2.5	acres	
<b>Mass (weight)</b>				
oz	ounces	28	grams	g
lb	pounds	0.45	kilograms	kg
	short tons (2000 lb.)	0.9	ton	t
g	grams	0.035	ounces	oz
kg	kilograms	2.2	pounds	lb
t	ton (1000 kg)	1.1	short tons	
<b>Volume</b>				
tsp	teaspoons	5	milliliters	ml
Tbsp	tablespoons	15	milliliters	ml
fl oz	fluid ounces	30	milliliters	ml
c	cups	0.24	liters	l
pt	pints	0.47	liters	l
qt	quarts	0.95	liters	l
gal	gallons	3.8	liters	l
ft <sup>3</sup>	cubic feet	0.03	cubic meters	m <sup>3</sup>
yd <sup>3</sup>	cubic yards	0.76	cubic meters	m <sup>3</sup>

**Table 1–20**  
**The metric system and equivalents—Continued**

Symbol	When you know	Multiply by	To find	Symbol
ml	milliliters	0.03	fluid ounces	fl oz
l	liters	2.1	pints	pt
l	liters	1.06	quarts	qt
l	liters	0.26	gallons	gal
m <sup>3</sup>	cubic meters	35	cubic feet	ft <sup>3</sup>
m <sup>3</sup>	cubic meters	1.3	cubic yards	yd <sup>3</sup>
Temperature (exact)				
°F	Fahrenheit temperature	5/9 (after subtracting 32°)	Celsius temperature	°C
°C	Celsius temperature	9/5 (then add 32°)	Fahrenheit temperature	°F

**Table 1–21**  
**Aircraft transfer decision table**

Transfer to <sup>1</sup>	Records to AMCOM	Remove dataplate	Copies to AMCOM <sup>2</sup>
Federal, State, county or local Government	No	Flyable aircraft No nonflyable aircraft <sup>3</sup>	Yes
Destroyed aircraft	Yes	Yes	No
Transferred to DRMS excess or deteriorated aircraft <sup>4</sup>	No	<sup>3</sup>	Yes
Static display	Yes	Yes	No
Museum within Army	<sup>5</sup>	<sup>3</sup>	<sup>5</sup>
Museum outside Army	<sup>5</sup>	<sup>3</sup>	<sup>5</sup>
Davis Monthan	No	No	Yes
Excess aircraft sold to private sector	No	No	Yes
Category A trainer	No	No	Yes
Category B trainer	No	No	Yes
MTA often referred to as Category C trainer	No	No	Yes
Local salvage	<sup>6</sup>	Yes	No
Local salvage for training	<sup>7</sup>	Yes	Yes

Notes:

<sup>1</sup> Complete DA Form 2410s for all items removed or installed before transfer or completion of local salvage and update DA Form 2408-16 and/or DA Form 2408-16-1. Make a closing statement on the DA Form 2408-15 stating disposition of the aircraft, date of transfer, or other action (such as local salvage), current aircraft hours, current history recorder readings for both engines (H-60 and AH-64), unit transferring the aircraft, disposition of the aircraft data plate, and POCs phone number.

<sup>2</sup> Send a copy of the current DA Form 2408-13, last page of aircraft DA Form 2408-15 (to include the close-out statement), and copies of all DA Forms 2408-16 and DA Form 2408-16-1.

<sup>3</sup> Remove the data plate and make a photocopy of the data plate. Photocopy shall remain with the aircraft. Forward the data plate to AMCOM.

<sup>4</sup> Forward data plate and all records for AH-1 and AH-64 to AMCOM.

<sup>5</sup> If the aircraft has significant historical value and/or the records are needed as part of the display the records may remain with the aircraft. If the records remain with the aircraft, comply with NOTE 1.

<sup>6</sup> Forward data plate and a copy of aircraft disposition instructions to AMCOM. Forward the records to AMCOM upon completion of salvage.

<sup>7</sup> Forward data plate and a copy of aircraft disposition instructions to AMCOM. Forward the records to AMCOM after all needed parts are removed from the aircraft. Do not remove parts from the aircraft after the records are transferred to AMCOM.

## Chapter 2 Aircraft Logbook Forms and Records

### 2-1. General-aircraft logbook forms and records

a. This chapter instructs in the use, general and special instructions, disposition, and how to fill out logbook forms and records for aircraft, UAS subsystems, aircraft and UAS training devices or simulators, and installed aviation-related mission equipment.

b. All aviation, UAS units, organizations, and/or activities that operate, fly, and maintain aircraft, UAS subsystems, and aviation-related mission equipment shall maintain aircraft logbook forms and records either automated or manual. These records are used to control operations of aircraft, UAS aircraft training devices or simulators, maintenance trainer airframes, and installed aviation-related mission equipment. See appendix D for a list of forms and records to be maintained.

c. When the aircraft or UA is operated away from its home station, the closed out forms shall stay in the logbook until the aircraft or UA returns. During extended time away from the home station, the aircraft forms shall be removed and filed in the local maintenance office. Upon completion of the exercise, TDY, or combat the forms shall be delivered back to the home station.

d. A file consisting of six flying-months of logbook forms shall be kept. The monthly flying file shall start on the 16th of each month and end on the 15th of the following month. As each new flying month is added, the seventh flying month may be destroyed. If the aircraft, UA, or UAS subsystems does not fly or operate in a given month, the file shall be kept intact until the aircraft, UAS flies or operates again. Always keep 6 flying months, plus the current month. Records are archived in the aviation LIS. A paper file for six flying-months shall be maintained for aviation forms and records that have not been automated and made part of the aviation LIS.

### 2-2. Logbook Binder (NSN 7510-00-889-3494 (2 1/2 inch))

a. The logbook binder may be used to hold the DA Forms listed in paragraph 1-14d utilizing a paper logbook for the aircraft, UAS subsystems, or other aviation-associated equipment.

b. The logbook binder has a plastic slot on the outside to hold the DA Form 2408-31, identifying the aircraft, UAS subsystems, or other aviation-associated equipment to which the logbook belongs.

c. The logbook shall remain with the aircraft when it is operated or flown, inspected, serviced, repaired, overhauled, modified, TDY, or on loan. The logbook shall remain with the UAS subsystems when it is inspected, serviced, repaired, overhauled, modified, TDY, or on loan, and with the ground control station (GCS) when it is operated or flown. Logbooks may remain with the aircraft when transferred (see para 1-15).

### 2-3. DA Form 2408

a. *Purpose of the DA Form 2408.* DA Form 2408 (Equipment Log Assembly (Records)) provides a reference for operational, mission, duty, flight condition symbols, aircraft and UAS subsystem condition status symbols, and maintenance codes to be used on DA Form 2408-12, DA Form 2408-13, DA Form 2408-13-1, DA Form 2408-13-2, DA Form 2408-13-3, and other related maintenance forms (see chaps 2, 3, and 5). For LIS users, the codes are part of the system and shall appear in drop down lists as aids in completing the forms and records.

*Note.* Flying duty, mission, and flight condition symbols are also listed in AR 95-1 for aircraft and AR 95-23 for UAS.

b. *Use.* Provide information to assist aircrew, UAS operator, and maintenance personnel on filling out logbook, maintenance, and historical forms, records, and files. The information in AR 95-1 or AR 95-23 takes precedence over this pamphlet when there is a conflict.

c. *Disposition.* This form is a permanent part of the logbook. When soiled or damaged replace it with a new one.

### 2-4. DA Form 2408-31

a. *Purpose of the DA Form 2408-31.* DA Form 2408-31 (Aircraft Identification Card) identifies a specific logbook to an aircraft, UA, or UAS training device or simulator, or other aviation equipment.

b. *Use.* This form is used in the outside front plastic slot of each logbook, containing operational and maintenance forms and records described throughout this pamphlet (see app A).

c. *Disposition.* This form is a permanent part of the logbook. A new card shall be made out when the information changes or the card is no longer readable. When a new card is made out, the old card shall be destroyed.

### 2-5. DA Form 2408-4-1

a. *Purpose of DA Form 2408-4-1.* DA Form 2408-4-1 (Weapon Record Data) provides a record of rounds fired, maintenance actions, and components replaced during the service life of an armament system when installed on an aircraft. This information is important to the crew and armament system maintainer.

b. *Use.* The DA Form 2408-4-1 is used to-



(1) Record rounds fired for each armament subsystem that requires service or replacement after a specific number of rounds fired.

(2) Record maintenance including replacement, overhaul, or rebuild of components and/or modules. The applicable armament TM, ETM, and/or IETM lists components that require inspection or replacement on a rounds-fired basis.

*c. General instructions.*

(1) Appendix D lists aircraft requiring this form. It shall be maintained only if the aircraft is equipped with an armament system.

(2) The pilot, crew chief, armament mechanic, or maintenance supervisor shall make entries in the weapons data block(s), after the weapon is fired or when performing maintenance. The armament equipment user or support activity shall enter any additional remarks considered significant to the operation and/or maintenance of the weapon system.

(3) One DA Form 2408-4-1 shall be used for each weapon installed on the aircraft, regardless of the number of barrels per weapon.

(4) When barrels and/or other components are replaced include the serial number if one exists.

*d. Disposition.*

(1) Keep DA Form 2408-4-1 in the aircraft logbook when an armament system is installed. When the armament weapon system is removed from aircraft and is to be evacuated or stored (unmounted), remove the form from the logbook and attach to the weapon in a protective cover.

(2) When the form is completely filled, start a new DA Form 2408-4-1 with all needed information "brought forward" to the new form. The person that "brought forward" the entries shall enter their AKO user name, if not assigned an AKO user name use the first name, middle initial, and last name on the form. Retain the old form in the maintenance office file for 90 days, and then destroy it.

(3) When armament equipment is overhauled or rebuilt, destroy the DA Form 2408-4-1 and make a new form with zero rounds fired. Preparation instructions for DA Form 2408-4-1 are listed below.

1. *End item.* Enter "Helicopter."

2. *Serial number.* Enter the aircraft serial number (7 numeric digits).

3. *Model.* Enter the mission, design, and series of the aircraft.

4. *Unit.* Enter the name of the organization owning the aircraft.

5. *Weapon data.*

5a. *Date fired.* Enter the date of firing. Leave blank when making an entry to document maintenance actions.

5b. *Cannon model.* Enter the model number of the cannon.

5c. *Serial number cannon tube.* Enter the serial number of the cannon tube.

5d. *Rounds fired.* Enter the number of rounds fired for the mission day. Leave blank when making an entry for replacement or maintenance inspection.

5e. *Cumulative rounds.* Add the rounds fired today to the previous cumulative rounds and enter the total cumulative rounds fired.

5f. *Remarks.* Entries shall be made when a component of the weapon is replaced. Other remarks significant to maintenance or the operation of the weapon shall be entered.

5g. *Name or PID.* The person making the entry shall enter their AKO user name or if not assigned an AKO user name use the first name, middle initial, and last name for routine rounds fired, cumulative rounds fired, and any maintenance actions performed. Field-level armament personnel who complete maintenance actions shall put their UIC under the AKO user name or, if not assigned an AKO user name, shall use their first names, middle initial, and last names.

## **2-6. DA Form 2408-4-2**

*a. Purpose of the DA Form 2408-4-2.* DA Form 2408-4-2 (Weapon Sighting Data (OH-58D)) is used to record data constants and other weapon sighting information for the mast mounted sight (MMS) installed on the OH-58D helicopter.

*b. Use.* This form is used for OH-58D helicopters for the following:

(1) To provide the pilot, crewmember, and armament maintenance personnel a ready reference of computer data for proper operation of the MMS.

(2) To show the removal and replacement of component parts of the MMS system. When one or more of the MMS components listed on the form is removed and replaced with a different component the form shall be updated with the new component data constant(s).

(3) As a ready reference of data constants and sighting information during flight and maintenance operations.

*c. Disposition.*

(1) When the MMS turret assembly is removed from the aircraft, for any reason, DA Form 2408-4-2 shall be removed from the logbook. The form shall be placed in a protective envelope and attached to the MMS turret assembly. A new DA Form 2408-4-2 shall be made out for the new MMS turret assembly installed on the aircraft and placed in the logbook.

(2) Keep DA Form 2408-4-2 in the aircraft logbook until it becomes damaged, entries become obliterated, or all the lines in blocks 5, 8, and 9 are used and another entry is needed. Then make out a new form and throw the damaged or filled out form away. Preparation instructions for DA Form 2408-4-2 are below.

1. *End item.* "Helicopter" has been preprinted.
2. *Serial number.* Enter the serial number (seven numerical digits) of the end item.
3. *MODEL.* "OH-58D" has been preprinted.
4. *UIC.* Enter the UIC of the unit or activity that owns the end item.
5. *Date.* Enter the date of the data constants reading. There is space for five entries (a through e). When component, in block 6, is removed and replaced enter the date of the new data constants readings on the next open line, and line out the previous entry.
6. *Component.* These nomenclatures have been preprinted.
7. *Data constants.* Enter the data constants information (black lead pencil), exactly as it appears on each component data plate. As components are removed and replaced erase this entry, and enter the data constants for the new component. The use of transparent tape, in block 7, is authorized. Tape must be of the type you can print on with a pencil.
8. *MMS components serial number.* Enter the serial number of the MMS subsystems components. There is space for five entries (a through e). When component, in block 6, is removed and replaced enter the new MMS component serial number on the next open line, and line out the previous entry.
9. *PID.* The person making the data constants entry shall enter their AKO user name or, if not assigned an AKO user name, their first name, middle initial, and last name.

## 2-7. DA Form 2408-4-3

a. *Purpose of the DA Form 2408-4-3.* DA Form 2408-4-3 (Weapon Sighting Data (AH-64A)) is used to record bore sight harmonization computer data and other weapon sighting information for armament subsystem assemblies installed on AH-64A helicopters.

b. *Use.* This form is used for AH-64A helicopters for the following:

- (1) To provide the pilot, crewmember, and armament maintenance personnel a ready reference of fire control computer (FCC) data for proper operation of armament systems.
- (2) To show removal and replacement of FCC and air data processors. When the FCC or Air Data Processor listed on the form is removed and replaced with a different component update the form with the new components bore sight harmonization computer data.
- (3) As a ready reference of data constants and sighting information during flight and maintenance operations.

c. *Disposition.* Keep the DA Form 2408-4-3 in the aircraft logbook until it becomes damaged, entries become obliterated, or all the lines in blocks 5 through 8 are filled and another entry is needed. Then make out a new form, per paragraph 1-7, and throw the damaged or filled up form away. Preparation instructions for DA Form 2408-4-3 are listed below.

1. *End item.* "Helicopter" has been preprinted.
2. *Serial number.* Enter the serial number (seven numerical digits) of the aircraft.
3. *Model.* "AH-64A" has been preprinted.
4. *UIC.* Enter the unit identification code of the unit or activity that owns the end item.
5. *FCC S/N.* Enter the fire control computer serial number. If the FCC is removed and replaced, erase the old serial number and enter the new serial number.
6. *Air data proc S/N.* Enter the Air Data Processor serial number. If the Air Data Processor is removed and replaced, erase the old serial number and enter the new serial number.
7. *Date.* Enter the date when the Air Data Processor thumb wheel setting was entered. If the Air Data Processor is removed and replaced, erase the old date and enter the date the new thumb wheel setting was entered.
8. *Thumbwheel setting.* Enter the assigned thumb wheel setting. If the Air Data Processor is removed and replaced, erase the old assigned thumb wheel setting and enter the new thumb wheel setting.
9. *TADS correctors-MD.*
  - 9a. *Date.* Enter date when target acquisition designation sight (TADS) Correctors Milliradian (MR) sighting data listed below was entered.
  - 9b. *Left EL=.* Enter the Left Elevation (EL) TADS Corrector-MR data. *LEFT AZ=.* Enter the Left Azimuth (AZ) TADS Corrector-MR data.
  - 9c. *FWD EL=.* Enter the Forward (FWD) EL TADS Corrector-MR data. *FWD AZ=.* Enter the FWD AZ TADS Corrector-MR data.
  - 9d. *RIGHT EL=.* Enter the Right EL TADS Corrector-MR data. *RIGHT AZ=.* Enter the Right AZ TADS Corrector-MR data.
10. *TADS correctors-MR.* Use this block after Equipment Change Proposal (ECP) 1248 and 1251 are applied to the aircraft.

- 10a. *Date*. Enter date when TADS Correctors Milliradian (MR) sighting data listed below was entered.
- 10b. *RATE PITCH=*. Enter the Rate Pitch Corrector-MR data.
- 10c. *YAW=*. Enter the Yaw Corrector-MR data.
11. *BST EGI-MR*. Use this block after ECP 1198 is applied to the aircraft.
- 11a. *DATE*: Enter date the Bore Sight Acquisition Mode (BST) Embedded Global Positioning System/Inertial Navigation System (EGI) Correctors-MR data was entered.
- 11b. *AZ=*. Enter the Azimuth (AZ) Corrector-MR data.
- 11c. *EL=*. Enter the Elevation Corrector-MR data.
- 11d. *ROLL*. Enter the Roll Corrector-MR data.
12. *GUN CORRECTORS-MR*.
- 12a. *Date*. Enter date when Gun Correctors-MR Sighting Data listed below was entered.
- 12b. *FWD EL*. Enter the FWD EL Gun Correctors-MR data. *AZ*. Enter the FWD AZ Gun Correctors-MR data.
- 12c. *ROLL LT*. Enter the Roll LT Gun Correctors-MR data. *RT*. Enter the Roll RT Gun Correctors-MR data.
13. *PNVS CORRECTORS-MR*.
- 13a. *Date*. Enter date when PNVS corrector-MR sighting data was entered.
- 13b. *EL=*. Enter the EL PNVS Corrector-MR data. *AZ=*. Enter the AZ PNVS Corrector-MR data.
14. *PYLON 1 CORRECTORS-MR*.
- 14a. *DATE*. Enter the date when Pylon 1 Correctors-MR sighting data was entered.
- 14b. *EL*. Enter the EL Pylon 1 Correctors-MR data. *AZ*. Enter the AZ Pylon 1 Correctors-MR data. *ROLL*. Enter the Roll Pylon 1 Correctors-MR data.
15. *PYLON 2 Correctors-MR*.
- 15a. *Date*. Enter the date when Pylon 2 Correctors-MR data was entered.
- 15b. *EL*. Enter the EL Pylon 2 Correctors-MR data. *AZ*. Enter the AZ Pylon 2 Correctors-MR data. *ROLL*. Enter the Roll Pylon 2 Correctors-MR data.
16. *PYLON 3 CORRECTORS-MR*.
- 16a. *Date*. Enter the date when Pylon 3 Correctors-MR data was entered.
- 16b. *EL*. Enter the EL Pylon 3 Correctors-MR data. *AZ*. Enter the AZ Pylon 3 Correctors-MR data. *ROLL*. Enter the Roll Pylon 3 Correctors-MR data.
17. *PYLON 4 Correctors-MR*.
- 17a. *Date*. Enter the date when Pylon 4 Correctors-MR data was entered.
- 17b. *EL*. Enter the EL Pylon 4 Correctors-MR data. *AZ*. Enter the AZ Pylon 4 Correctors-MR data. *ROLL*. Enter the Roll Pylon 4 Correctors-MR data.

## **2-8. DA Form 2408-4-4**

a. *Purpose of the DA Form 2408-4-4 (see fig 2-7)*. DA Form 2408-4-4 (Weapon Sighting Data (AH-64)) is used to record bore sight harmonization computer data and other weapon sighting information for armament subsystem assemblies installed on AH-64 helicopters.

b. *Use*. This form is used for AH-64 helicopters for the following:

(1) To provide the pilot, crewmember, and armament maintenance personnel a ready reference of System Processor (SP) #1 and #2, Data Processor (DP) #1 and #2, and Weapons Processor (WP) #1 and #2 serial numbers and software version for proper operation of armament systems.

(2) To show removal and replacement of SP #1 and #2, DP #1 and #2, and WP #1 and #2. When the SP #1 and #2, DP #1 and #2, and WP #1 and #2 listed on the form are removed and replaced with a different component and/or the software version is updated, ensure the data on the form corresponds with the new component(s) bore sight harmonization computer data.

(3) As a ready reference of data constants and sighting information during flight and maintenance operations.

c. *Disposition*. Keep DA Form 2408-4-4 in the aircraft logbook until it becomes damaged or entries become obliterated, then make out a new form and throw the damaged form away.

1. END ITEM HELICOPTER	2. SERIAL NUMBER 205338	3. MODEL AH-64	4. UIC WAZWBO
<b>BORESIGHT HARMONIZATION</b>			
5. SP #1 S/N 4023	SOFTWARE VERSION SAV-005000	6. SP #2 S/N 70020	SOFTWARE VERSION SAV-005000
7. DP #1 S/N 17060983	SOFTWARE VERSION DAV-001000	8. DP #2 S/N 1123	SOFTWARE VERSION DAV-001000
9. WP #1 S/N 7081	SOFTWARE VERSION WAV-005000	10. WP #2 S/N 7161	SOFTWARE VERSION WAV-005000
11. BPS CORRECTOR -MR-	a. DATE 20131001	b. OFFSET= 0.00	
12. INU1 CORRECTORS -MR-	a. DATE 20131001	b. AZ= 0.30	c. EL= 2.60 d. ROLL= 1.90
13. INU2 CORRECTORS -MR-	a. DATE 20131001	b. AZ= 0.70	c. EL= 2.10 d. ROLL= 1.90
14. DOPPLER CORRECTORS -MR-	a. DATE 20131001	b. AZ= 0.30	c. EL= 2.60 d. ROLL= 4.80
15. HIADC LEFT PROBE CORRECTORS -MR-	a. DATE 20131001	b. AZ= 9.40	c. EL= 12.60 d. ROLL= 12.00
16. HIADC RIGHT PROBE CORRECTORS -MR-	a. DATE 20131001	b. AZ= 6.90	c. EL= 5.00 d. ROLL= 12.00
17. TABS CORRECTORS -MR-	a. DATE 20131001	b. LEFT AZ= 0.00	c. EL= 7.40
		d. CENTER AZ= 0.30	e. EL= 6.60
		f. RIGHT AZ= 0.60	g. EL= 5.60
18. PNVS CORRECTORS -MR-	a. DATE 20131001	b. AZ= 1.80	c. EL= 8.00
19. PYLON 1 CORRECTORS -MR-	a. DATE 20131001	b. AZ= 10.10	c. EL= 6.40 d. ROLL= 3.20
20. PYLON 2 CORRECTORS -MR-	a. DATE 20131001	b. AZ= 10.20	c. EL= 9.70 d. ROLL= 1.10
21. PYLON 3 CORRECTORS -MR-	a. DATE 20131001	b. AZ= 10.50	c. EL= 7.70 d. ROLL= 0.20
22. PYLON 4 CORRECTORS -MR-	a. DATE 20131001	b. AZ= 8.70	c. EL= 7.60 d. ROLL= -1.00
23. GUN CORRECTORS -MR-	a. DATE 20131001	b. CENTER AZ= 14.30	c. CENTER EL= 12.40
			d. LT ROLL= 0.10 e. RT ROLL= -0.10
24. HARMONIZE CORRECTORS -MR-	a. DATE 20131001	b. DH AZ= -1.90	c. DH EL= 4.70
		d. CREW: JOHN DOW	/ JOHN DOE

DA FORM 2408-4-4, MAR 2014

WEAPON SIGHTING DATA (AH-64)

APD LF v1.00

For use of this form, see DA PAM 738-751; the proponent agency is DCS G-4

Legend for Figure 2-7;

Preparation instructions (by block numbers and title) for DA Form 2408-4-4.

Note.

1. **END ITEM.** "Helicopter" has been preprinted.
2. **SERIAL NUMBER (SN).** Enter the SN (seven numerical digits) of the aircraft.
3. **MODEL.** "AH-64" has been preprinted.
4. **UIC.** Enter the unit identification code of the unit or activity that owns the end item.
5. **SP #1 S/N.** Enter the system processor (SP) #1 serial number. If the SP #1 is removed and replaced, erase the old serial number and enter the new serial number. **SOFTWARE VERSION.** Enter the software version installed on the SP #1. When the SP #1 is removed and replaced, or a new software version is installed on the SP #1, enter the new software version.
6. **SP #2 S/N.** Enter the SP #2 serial number. If the SP #2 is removed and replaced, erase the old serial number and enter the new serial number. **SOFTWARE VERSION.** Enter the software version installed on the SP #2. When the SP #2 is removed and replaced, or a new software version is installed on the SP #2 enter the new software version.
7. **DP #1 S/N.** Enter the data processor (DP) #1 serial number. If the DP #1 is removed and replaced, erase the old serial number and enter the new serial number. **SOFTWARE VERSION.** Enter the software version installed on the DP #1. When the DP #1 is removed and replaced, or a new software version is installed on the DP #1 enter the new software version.
8. **DP #2 S/N.** Enter the DP #2 serial number. If the DP #2 is removed and replaced, erase the old serial number and enter the new serial number. **SOFTWARE VERSION.** Enter the software version installed on the DP #2. When the DP #2 is removed and replaced, or a new software version is installed on the DP #2, enter the new software version.
9. **WP #1 S/N.** Enter the weapon processor (WP) #1 serial number. If the WP #1 is removed and replaced, erase the old serial number and enter the new serial number. **SOFTWARE VERSION.** Enter the software version installed on the WP #1. When the WP #1 is removed and replaced, or a new software version is installed on the WP #1, enter the new software version.
10. **WP #2 S/N.** Enter the WP #2 serial number. If the WP #2 is removed and replaced, erase the old serial number and enter the new serial number. **SOFTWARE VERSION.** Enter the software version installed on the WP #2. When the WP #2 is removed and replaced, or a new software version is installed on the WP #2, enter the new software version.
11. **BPS CORRECTOR -MR:**
  - 11a. **DATE.** Enter date when ballistic protection system (BPS) correctors Milliradian (MR) sighting data were entered.

Figure 2-7. Sample of a completed DA Form 2408-4-4

- 11b. OFFSET=. Enter the BPS correctors -MR offset.
12. *INU1 CORRECTORS -MR:*
- 12a. DATE. Enter date when the inertial navigation unit (INU) 1 correctors-MR data were entered.
- 12b. AZ=. Enter the AZ corrector-MR data. EL=. Enter the EL corrector-MR data. ROLL=. Enter the roll corrector-MR data.
13. *INU2 CORRECTORS -MR:*
- 13a. DATE. Enter date when the INU 2 correctors-MR data were entered.
- 13b. AZ=. Enter the Azimuth (AZ) corrector-MR data. EL=. Enter the Elevation (EL) corrector-MR data. ROLL=. Enter the roll corrector-MR data.
14. *DOPPLER CORRECTORS -MR:*
- 14a. DATE. Enter date when the doppler correctors-MR data were entered.
- 14b. AZ=. Enter the AZ corrector-MR data. EL=. Enter the EL corrector-MR data. ROLL=. Enter the roll corrector-MR data.
15. *High Integrated Air Data Computer (HIADC) LEFT PROBE CORRECTORS -MR:*
- 15a. DATE. Enter date when the HIADC left probe correctors-MR data were entered.
- 15b. AZ=. Enter the AZ corrector-MR data. EL=. Enter the EL corrector-MR data. ROLL=. Enter the roll corrector-MR data.
16. *HIADC RIGHT PROBE CORRECTORS -MR:*
- 16a. DATE. Enter date when the HIADC right probe correctors-MR data were entered.
- 16b. AZ=. Enter the AZ corrector-MR data. EL=. Enter the EL corrector-MR data. ROLL=. Enter the roll corrector-MR data.
17. *TADS CORRECTORS-MR.*
- 17a. DATE. Enter date when target acquisition designation sight (TADS) correctors MR sighting data listed below were entered.
- 17b. LEFT AZ=. Enter the left AZ TADS corrector-MR data. LEFT EL=. Enter the left EL TADS corrector-MR data.
- 17c. CENTER AZ=. Enter the center AZ TADS corrector-MR data. CENTER EL=. Enter the center EL TADS corrector-MR data.
- 17d. RIGHT AZ=. Enter the right AZ TADS corrector-MR data. RIGHT EL=. Enter the right EL TADS corrector-MR data.
18. *PNVS CORRECTORS-MR.*
- 18a. Date. Enter date when PNVS corrector-MR sighting data were entered.
- 18b. AZ=. Enter the AZ PNVS corrector-MR data. EL=. Enter the EL PNVS corrector-MR data.
19. *PYLON 1 CORRECTORS-MR.*
- 19a. DATE. Enter the date when pylon 1 correctors-MR sighting data were entered.
- 19b. AZ. Enter the AZ pylon 1 correctors-MR data. EL. Enter the el pylon 1 correctors-MR data. ROLL. Enter the roll pylon 1 correctors-MR data.
20. *PYLON 2 CORRECTORS-MR.*
- 20a. DATE. Enter the date when pylon 2 correctors-MR data were entered.
- 20b. AZ. Enter the AZ pylon 2 correctors-MR data. EL. Enter the el pylon 2 correctors-MR data. ROLL. Enter the roll pylon 2 correctors-MR data.
21. *PYLON 3 CORRECTORS-MR.*
- 21a. DATE. Enter the date when pylon 3 correctors-MR data were entered.
- 21b. AZ. Enter the AZ pylon 2 correctors-MR data. EL. Enter the EL pylon 3 correctors-MR data. ROLL. Enter the roll pylon 3 correctors-MR data.
22. *PYLON 4 CORRECTORS-MR.*
- 22a. DATE. Enter the date when pylon 4 correctors-MR data were entered.
- 22b. AZ. Enter the AZ pylon 4 correctors-MR data. EL. Enter the EL pylon 4 correctors-MR data. ROLL. Enter the roll pylon 4 correctors-MR data.
23. *GUN CORRECTORS-MR.*
- 23a. DATE. Enter date when gun correctors-MR sighting data listed below were entered.
- 23b. LEFT ROLL. Enter the left roll gun correctors-MR data. CENTER AZ. Enter the center az gun correctors-MR data. CENTER EL. Enter the center el gun correctors-MR data. RIGHT ROLL. Enter the right roll gun correctors-MR data.
24. *HARMONIZE GUN-MR.*
- 24a. Date. Enter when harmonize gun sensor (PNVS) corrector-MR sighting data were entered.
- 24b. *Dual High AZ*=. Enter the DH AZ harmonize gun-MR data. DH EL=. Enter the DH EL harmonize gun-MR data.
- 24c. CREW. Enter the crew. There is space for two crew members.

**Figure 2-7. Sample of a completed DA Form 2408-4-4**

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The data in blocks 5 through 24 may change. Manual record keepers may use pencil for entries so they can be erased and changed when components are removed and replaced. The use of transparent tape is authorized and must be of the type you can print on with a pencil.

## **2-8. DA Form 2408-12**

*a. Purpose of DA Form 2408-12 (see fig 2-8).* DA Form 2408-12 (Army Aviator's Flight Record) provides a record of flight operations and limited maintenance information. This data is also provided to the Centralized Aviation Flight Record System (CAFRS) by LIS.

*b. Use.* This form is used for aircraft, UA, or UAS training device, or simulators, listed in appendix D, to record:

(1) Air crew personnel data, aircraft and UA flying time, duty symbols, and type of flight accomplished by the pilot and crew.

(2) HIT check deviations for installed engines.

(3) Operating hours and number of starts for designated APUs.

(4) Rounds fired.

(5) Landing gear cycles for aircraft with retractable landing gear, when required.

(6) Internal and external loads.

(7) Servicing data for aircraft and APU.

(8) Hot section factor (HSF) counts for the T703 engine installed on OH-58D helicopters.

(9) Landings (standard and autorotations, and UA touch and go).

(10) UAS rocket assist and pneumatic assist take-offs.

*Note.* Record the operating hours/starts/hour meter readings for APUs when required by the applicable TM-23 maintenance manual or if requested by unit or activity commander. Fixed-wing units tracking Hobbs Meter time shall record as directed by the individual maintenance contract.

*c. General.*

(1) The crew chief, unmanned aircraft crewmember (UAC) or mechanic assigned to the aircraft shall—

(a) Make sure that enough copies of DA Form 2408-12 are in the aircraft or UA logbook to complete the assigned mission.

(b) Closeout the DA Form 2408-12 after the last flight of the mission day or before the first flight of the next mission day.

(c) Initiate a new DA Form 2408-12 after the last flight of the mission day or before the first flight of the next mission day.

(d) Before each flight, check quantity of fuel and oil in tanks, anti-icing fluid level and ensure the oxygen system pressure meets the TM requirement. Before the first flight of the mission day, record actual levels on the first line in block 7, SERVICING DATA.

*Note.* For helicopter flights, this check will include the Helicopter Oxygen System (HOS) when installed.

(e) Before each flight check quantity of fuel and oil in tanks, anti-icing fluid level, and make sure the oxygen system pressure meets the TM requirement. Record actual levels on the first line in block 7, SERVICING DATA, before the first flight of the mission day.

(2) The pilot of the aircraft or UA operator shall make sure that DA Form 2408-12 is properly filled out. This data is used in a permanent historical record for pilots/crewmembers/UAC to show flying hours, types of missions flown, flight conditions, and flying duties performed for pay purposes. The pilot, flight engineer, and/or UAC must enter all needed flight information for all crewmembers who were on the flight or assisted in the flight. The pilot/flight engineer shall also enter operational data, such as landings, touchdown autorotations, touch and go, rocket assist takeoffs, pneumatic assist takeoffs, engine starts, loads, cycles operated, hot section factor readings, rounds fired, and so forth. Upon landing after each flight, the pilot shall read the engine monitor page displayed on the multifunction display (MFD) for HSF counts and enter the counts in block 6a, HSF.

(3) For UAS only—

(a) If a UAS unit hands over control of a UA in flight to another UAS unit, the owning unit will enter "external operations" in the PID block for the time the UA is operated by a different unit. Enter external operator (EO) in the Duty Symbol Block and enter appropriate flight symbol and hours for the time the UA is operated by an external unit.

(b) The unit externally operating the UA will fill out a DA Form 2408-12 for the time it operated another unit's UA. The UAC in command of the flight shall annotate in the margin of the DA Form 2408-12 with a remark, "I certify this DA Form 2408-12 as an externally operated flight," the date of the flight, and the signature of the UAC in command or the unit commander following the certification.

(4) When an individual on flight status has performed flying duties in an aircraft or a UA not assigned to their unit or activity, a copy of the DA Form 2408-12 shall be provided to that individual. The pilot or UAC in command of the

flight shall annotate the margin of the DA Form 2408-12 with a remark, "I certify that this is a true copy of the DA Form 2408-12," the date of the flight, and the signature of the pilot or UAC in command following the certification.

(5) A flight or series of flights that take off before 2400 hours and lands after 2400 hours are credited to the date of takeoff. Enter the time it took for the flight in hours and tenths of an hour in the Flight Hour Block (see table 1-12).

(6) If more than one DA Form 2408-12 is used for the mission day, enter the totals in block 8 on the last page.  
*d. Disposition.*

(1) After the last flight of the mission day or before the first flight of the next mission day, close out DA Form 2408-12 by totaling the flight hours, landings, touchdown autorotations, APU starts, APU hours, hour meter hours, engine starts, landing gear cycles, and rounds fired in block 8. Enter these totals on the DA Form 2408-13 in the blocks that apply (totals are automatically calculated in the automated LIS system). Make out a new DA Form 2408-12. Remove the closed-out DA Form 2408-12 from the aircraft logbook and send the closed-out DA Form 2408-12 form through the maintenance office to the flight operations office (this step not required for units using the automated LIS system). When the aircraft is operated away from its home station, the closed-out DA Form 2408-12 forms shall stay in the logbook until the aircraft returns.

(2) Operations shall keep DA Form 2408-12 for 3 months, and then destroy it.

Page 1 of 2

1. DATE 20130925		2. SERIAL NUMBER 0000000		3. MODEL OH-58D		4. ORGANIZATION 1-10 CAV		5. STATION FT Hood														
6a. FLIGHT		1 DATA		FROM LOCAL		TO		TO														
TIME	FROM 06:00	TO	TO 10:00	FLT HRS 4	LDG: STD 6	AUTOROTATIONS HOV: 0 TOUCHDOWN: 0		START #1 1	START #2 0													
MISSION ID	STD T	CONFIG	N/A	LOADS: INTERNAL	0	EXTERNAL	0	PASSENGERS	0													
ROUNDS	7.62	0	.50 Cal	0	30mm	0	ROCKET	0	HELLFIRE													
STATUS	7.62	/	.50 Cal	/	30mm	/	ROCKET	/	HELLFIRE													
HIT CHECK NO. 1 ENGINE		HIT CHECK NO. 2 ENGINE		HOIST CYC		AERIAL REFUEL PROBE																
1		N/A		0		EXTEND	0.0	RETRACT	0.0													
b. PERSONNEL DATA				c. DUTY SYMBOL/FLIGHT SYMBOL/HOURS/SEAT																		
NAME		RANK		PID		DS	FS	HR	S	DS	FS	HR	S	DS	FS	HR	S	DS	FS	HR	S	
DOE, JON		CW1		JD0000		PI	D	4.0	B	--	--	--	--	--	--	--	--	--	--	--	--	--
DOE, JANE		CW4		JD0001		PC	D	4.0	F	--	--	--	--	--	--	--	--	--	--	--	--	--
7. SERVICING DATA																						
FUEL ADDED (GALLONS)	GRADE	IN TANKS	OIL 1	GRADE	OIL 2	GRADE	APU	GRADE	OXY-GEN	ANTI-ICING	SERVICED BY		LOCATION									
0	JP4	300	1	23699	-----	-----	-----	-----	-----	-----	SIGNATURE		FT HOOD, TX									
290	JP4	375	1	23699	-----	-----	-----	-----	-----	-----	SIGNATURE		FT HOOD, TX									
191	JP4	375	-----	-----	-----	-----	-----	-----	-----	-----	SIGNATURE		FT HOOD, TX									
													TOTALS									
													481									

DA FORM 2408-12, MAR 2014  
 EDITION OF JAN 92 IS OBSOLETE

**ARMY AVIATOR'S FLIGHT RECORD**  
 For use of this form, see DA PAM 738-751; the proponent agency is DCS, G-4

Page 1 of 2  
 APD LF v1.00

Legend for Figure 2-8;

Preparation instructions (by block number and title) for DA Form 2408-12. Page \_\_\_\_ of \_\_\_\_\_. Enter page number "1" in the first space after the word Page; leave the second space empty, the pilot shall fill this in at completion of the mission.

1. DATE. The pilot or UAC shall enter the date at the beginning of the first flight of the mission day.

2. SERIAL NUMBER. The crew chief/flight engineer shall enter the aircraft serial number (seven numeric digits) or the UA serial number.

**Figure 2-8. Sample of completed DA Form 2408-12 (front)**

3. MODEL. The crew chief/flight engineer shall enter the aircraft, UA MDS, or UAS designator.
4. ORGANIZATION. The crew chief/flight engineer shall enter the unit or activity the aircraft or UAS is assigned to.
5. STATION. The crew chief/flight engineer shall enter the aircraft's or UAS's home station.

*Note.* Block 6a, 6b, and 6c shall be filled out by the pilot or UAC.

6a. FLIGHT DATA. Enter the number of the flight (for example, for first flight of the mission day enter a 1, or third flight of the mission day, enter a 3).

*Note.* The Federal Aviation Administration (FAA) identifier in the continental United States (CONUS) or the International Civil Aviation Organization (ICAO) identifier for areas OCONUS may be used instead of the airfield and place in the FROM and TO blocks.

FROM. Enter the airfield or place that you flew from. The word "LOCAL" may be used in this block for flights within the local flying area.

TO. Enter any intermediate stops during the flight (shall be left blank if "LOCAL" was used in the FROM section).

TO. Enter the airfield or place you flew to (shall be left blank if "LOCAL" was used in the FROM section).

TIME. FROM. Enter the time (24-hour clock) of take-off.

TO. Enter the time (24-hour clock) of intermediate landing.

TO. Enter the time (24-hour clock) of landing.

*Note.* When flying between time zones, the FROM and TO entries shall be recorded for the time zone at point of takeoff. When flying between multiple time zones Universal Coordinated Time may be used.

FLT HRS. Enter the total time, in hours and tenths, for this flight.

LDG: STD. Enter the total number of standard landings during this flight.

AUTOROTATIONS HOV: TOUCHDWN:. Enter the number of Hovering autorotations and the number of Touchdown autorotations. The number of autorotations may exceed the number of standard landings. For UAS, leave AUTO block blank.

STARTS #1 #2. Enter the number of engine starts for the number 1 engine and number 2 engine. Engine starts while the aircraft or UA is on the ground, or in the air shall be recorded for each flight when required by the aircraft or UAS maintenance manual. Fixed-wing aircraft may enter cycles when applicable for the maintenance program.

MISSION ID. STD. Enter the mission symbol that describes the purpose of the flight per AR 95-1 or AR 95-23 (UAS). For flight simulators, leave blank or as prescribed by the Commander of the Synthetic Flight Training System facility or by unit commander SOP to document aircrew training manual requirements.

CONFIG. Leave blank, unless otherwise directed.

LOADS: INTERNAL, EXTERNAL, PASSENGERS. When carrying internal cargo type loads, enter the total number of pounds of the internal load; when carrying external loads, enter the total number of pounds of the external load; when carrying passengers, enter number of passengers aboard aircraft during flight. Leave blank when there are no passengers, or internal or external cargo loaded on the aircraft or UA.

CYC. For aircraft, engine, or components that have a requirement to track cycles. For fixed-wing aircraft or UA enter the total number of times the landing gear was cycled up and down for this flight.

HSF. For OH-58D helicopters enter Hot Section Factor counts displayed on the engine monitor page displayed on the multifunction display (MFD).

ROUNDS. 7.62, .50 Cal, 30MM, ROCKET, HELLFIRE. Enter the number rounds fired from each weapon system for this flight. When a block is not present for the type of weapon installed on the aircraft or UA, line out the title on an unused block, and enter the weapon type and number of rounds fired. If none or it does not apply leave blank.

STATUS. 7.62, .50 Cal, 30MM, ROCKET, HELLFIRE. Leave these blocks blank.

HIT CHECK NO. 1 ENGINE. Record the HIT check deviation from the established baseline for No. 1 Engine (first flight of the mission day). If it does not apply, leave blank.

HIT CHECK NO. 2 ENGINE. Record the HIT check deviation from the established baseline for No. 2 Engine (first flight of the mission day). If it does not apply, leave blank.

APU. STARTS. HOURS, METER HRS. Enter the number of starts for the APU, if required by the TM-23 and/or TB 1-1500-341-01. For APUs without an hour meter, enter the time the APU was operated, in hours and tenths, if required by the TM-23 and/or TB 1-1500-341-01. If APU starts are shown on the start/hour meter, read the meter after the last flight of the mission day and enter the number of starts shown on the meter in block 8, TOTALS, APU STARTS portion. If it does not apply, leave blank. If Meter hrs does not apply leave blank. Fixed Wing units with a requirement to track Hobbs Meter time may enter the reading at the end of the flight.

HOIST CYC. Enter the number of Rescue Hoist Cycles during the flight.

AERIAL REFUEL PROBE EXT, RET, CON. Enter the number of fuel probe extensions (EXT) and retractions (RET) and connections (CON) during the flight.

6b. PERSONNEL DATA.

NAME. Enter last name and first name initial of each crewmember of each flight.

RANK. Enter rank of each crewmember for each flight. For example, CPT, MAJ, LTC, WO1, CW2, SPC, SGT, SSG, SFC, and MSG.

PID/SSAN. Leave this block blank at this time.

6c. DUTY SYMBOL/FLIGHT SYMBOL/HOURS/SEAT.

DS. Enter the flying duty symbol (DS), per AR 95-1 or AR 95-23 (UAS) that shows the type of duty completed by each crewmember listed. If any crewmember changes duty status during the flight, enter the new symbol in the next open "DS" column to the right.

**Figure 2–8. Sample of completed DA Form 2408–12 (front)**



FS. Enter the flight condition symbol, per AR 95-1 or AR 95-23 (UAS).

HR. Enter the flying time flown for each duty and flight symbol, in hours and tenths. The sum of these times must equal the total time in block 6a, FLT HRS.

S. Enter the seat each crewmember sat in for the flight, "F" for Front, "B" for Back for tandem seat aircraft only (AH-64); or "A" for crewmember who controls and/or monitors the actual flight of the UA from within a ground control station (GCS), launch and recovery site, portable GCS or similar device, or "P" for the crewmember who is responsible for operation of the payload to include weapons and sensors.

*Note.* After all crewmembers for the mission have been listed in block 6b, PERSONNEL DATA, enter "LAST ENTRY" on the next open line. If the number of crewmembers exceeds the space available for the flight, continue recording the names in the next open block 6b, PERSONNEL DATA. List only the persons on flying status. The pilot in command must initial any changes made to the PERSONNEL DATA, DS, FS, and HOURS blocks. Enter any other information needed locally.

7. SERVICING DATA. At the start of the mission day, the first line shall show the grade of fuel and oil, and the results of the in-tank checks. The crew chief, flight engineer or mechanic shall enter their AKO user name or, if not assigned an AKO user name, the first name, middle initial, and last name in the "SERVICED BY" block and enter the location of the aircraft or UA where the inspection was performed in the "LOCATION" block. The person servicing the aircraft or UA, or supervising the servicing shall enter the following: FUEL ADDED (GALLONS). The total quantity of fuel, in gallons, added at one time on the next open line. If fuel was removed, place a minus (-) sign in front of the quantity removed. If no fuel was added or removed, leave blank.

*Note.* The person who serviced the aircraft or UA or supervised the servicing shall make sure the DA Form 2408-12 entries match the amount and grade of fuel entries recorded on the servicing issue slip.

GRADE. Enter the grade of fuel used to service the aircraft or UA.

IN TANKS. Enter the total quantity, in gallons, of fuel in the tanks after servicing. If the aircraft or UA is not serviced, estimate the amount of fuel aboard the aircraft or UA.

OIL 1. Enter the amount of oil, in quarts, used to service the No. 1 engine. If oil was removed place a minus sign in front of the quantity. If none, leave blank.

GRADE. Enter the grade of oil used to service the No. 1 engine. If none, leave blank.

OIL 2. Enter the amount of oil, in quarts, used to service the No. 2 engine. If oil was removed place a minus sign in front of the quantity. If none, leave blank.

GRADE. Enter the grade of oil used to service the No. 2 engine. If none, leave blank.

APU. Enter the amount of oil, in pints, used to service the APU. If oil was removed place a minus sign in front of the quantity. If none, leave blank.

GRADE. Enter the grade of oil used to service the APU. If none, leave blank.

OXYGEN. Enter the amount of oxygen, in pounds per square inch (PSI) used to service the system. If none, leave blank.

*Note.* Servicing entries are required when an Oxygen System is aboard the aircraft.

ANTI-ICING. Enter the amount of anti-icing fluid, in gallons, used to service the system. If anti-icing fluid was removed place a minus sign in front of the quantity. If none, leave blank.

SERVICED BY. Enter the AKO user name or, if not assigned an AKO user name, use the first name, middle initial, and last name of the person doing the servicing or the person who supervised the servicing on the same line with the service. If no servicing was needed, the person who made the "Total in tanks" check shall enter their AKO user name or, if not assigned an AKO user name, the first name, middle initial, and last name in this column.

LOCATION. Enter the location where the aircraft or UA was serviced. The Federal Aviation Administration (FAA) Identifier in CONUS or the International Civil Aviation Organization (ICAO) Identifier for areas located OCONUS may be used instead of the airfield and place (for example, HOP for Campbell AAF, KY, HLR for Hood AAF, TX, GRK for Gray AAF, TX, EDMA for Augsburg Heliport, GE, RKSL for Seoul AAF Korea). If an identifier is not assigned, enter the location where the aircraft or UA was serviced. Authorized abbreviations are acceptable in this block.

TOTALS. Enter totals of all consumables used for the mission day.

*Note.*

Line one of the servicing data is the "Total in-tanks" at the start of the mission day, and shall not be added to the totals at the end of the mission day.

**Figure 2-8. Sample of completed DA Form 2408-12 (front)**

---

6a. FLIGHT		2		DATA		FROM local		TO -----		TO -----									
TIME	FROM	TO	TO	FLT HRS	LDG: STD	AUTO:		STARTS #1	STARTS #2										
	17:10	-----	18:10	1.0	1	HOV: 0	TOUCHDOWN: 0	1	0										
MISSION ID	STD	F	CONFIG	N/A	LOADS: INTERNAL	0	EXTERNAL	0	PASSENGERS	0	CYC	0	HSF	0					
ROUNDS	7.62	0	.50 Cal	0	30mm	0	ROCKET	0	HELLFIRE	0									
STATUS	7.62	/	.50 Cal	/	30mm	/	ROCKET	/	HELLFIRE	/	APU: STARTS	0	HOURS	0.0	HOUR METER HRS	0.0			
HIT CHECK	NO. 1 ENGINE		1		HIT CHECK		NO. 2 ENGINE		N/A		HOIST CYC		0		AERIAL REFUEL PROBE				
					EXTEND		0.0		RETRACT		0.0		CONNECT		0.0				
b. PERSONNEL DATA				c. DUTY SYMBOL/FLIGHT SYMBOL/HOURS/SEAT															
NAME	RANK	PID		DS	FS	HR	S	DS	FS	HR	S	DS	FS	HR	S	DS	FS	HR	S
DOE, JOHN	CW2	JD0003		MP	D	1.0	B	--	--	--	--	--	--	--	--	--	--	--	--
DOE, JOE	CW3	JD0004		PI	D	1.0	F	--	--	--	--	--	--	--	--	--	--	--	--
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6a. FLIGHT	3		DATA		FROM LOCAL		TO -----		TO -----										
TIME	FROM	TO	TO	FLT HRS	LDG: STD	AUTO:		STARTS #1	STARTS #2										
	18:30	-----	19:00	0.3	2	HOV: 0	TOUCHDOWN: 0	1	0										
MISSION ID	STD	T	CONFIG	N/A	LOADS: INTERNAL	0	EXTERNAL	0	PASSENGERS	0	CYC	0	HSF	0					
ROUNDS	7.62	0	.50 Cal	0	30mm	0	ROCKET	0	HELLFIRE	0									
STATUS	7.62	/	.50 Cal	/	30mm	/	ROCKET	/	HELLFIRE	/	APU: STARTS	0	HOURS	0.0	HOUR METER HRS	0.0			
HIT CHECK	NO. 1 ENGINE		1		HIT CHECK		NO. 2 ENGINE		0		HOIST CYC		0		AERIAL REFUEL PROBE				
					EXTEND		0.0		RETRACT		0.0		CONNECT		0.0				
b. PERSONNEL DATA				c. DUTY SYMBOL/FLIGHT SYMBOL/HOURS/SEAT															
NAME	RANK	PID		DS	FS	HR	S	DS	FS	HR	S	DS	FS	HR	S	DS	FS	HR	S
DOE, JOY	CW5	JD0005		PI	D	.3	B	--	--	--	--	--	--	--	--	--	--	--	--
DOE, JIM	CW5	JD0006		PC	D	.3	F	--	--	--	--	--	--	--	--	--	--	--	--
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8. TOTALS	FLIGHT HOURS		5.3		LANDINGS: STD		9		AUTO		APU: STARTS		HOURS		0.0				
					HOV: 0		TOUCHDOWN: 0		0		0		0.0						
HOUR METER HRS	0.0		STARTS: #1		3		#2		0		CYCLES		0		HSF		0		
ROUNDS	7.62	0	.50 Cal	0	30mm	0	ROCKET	0	HELLFIRE	0									
HOIST CYC	N/A		EXTEND		0.0		RETRACT		0.0		CONNECT		0.0						

REVERSE OF DA FORM 2408-12, MAR 2014

Legend for Figure 2-8;  
 Preparation instructions (by block number and title) for DA Form 2408-12.  
 Blocks 6a. FLIGHT DATA, 6b. PERSONNEL DATA, and 6c. DUTY SYMBOL/FLIGHT SYMBOL/HOURS/SEAT. The pilot, flight engineer or UAC shall fill in this information for each flight required in a mission day.  
 8. Totals. If more than one DA Form 2408-12 is used for the mission day, enter the totals, in block 8, on the last page. The person closing out the form, normally the crew chief, flight engineer, or assigned mechanic shall fill in the totals in each block that applies per previous instructions.  
 Flight hrs. Enter the total flying hours, in hours and tenths, for the mission day. Reenter total time to the DA Form 2408-13, block 11, current aircraft hrs.  
 LANDINGS: STD. AUTO HOVER TOUCH DWN. Enter the total number of landings and autorotations touchdown and hovering made for the mission day. Reenter total landings and autorotations touchdown and hovering in DA Form 2408-13, block 11, LANDINGS. Fixed-wing and UA shall leave the AUTO block blank.

Figure 2-8. Sample of a completed DA Form 2408-12 (back)-Continued

APU: STARTS. HOURS. Enter the total APU starts and hours, in hours and tenths, for the mission day. Reenter total APU starts/hours to the DA Form 2408-13, block 7, APU HISTORY STARTS and HOURS TODAY. If the APU has a start/hour meter use the total starts shown on the start/hour meter at the end of the mission day. Reenter total starts to DA Form 2408-13, block 7, APU HISTORY STARTS TOTAL.

HOIST CYCLES. Enter the total number of rescue hoist cycles at the end of the mission day.

STARTS: #1 #2. Enter the number of engine starts for the number 1 and number 2 engines. Engine starts while the aircraft is on the ground, or in the air shall be recorded for each flight, when required by the applicable aircraft or UAS maintenance manual. Reenter the number of engine starts to the DA Form 2408-13, block 9, ENGINE STARTS. Fixed-wing may enter cycles when applicable to the maintenance program.

CYCLES. For aircraft, engines, or components that have a requirement to track cycles enter the number of cycles. For fixed-wing aircraft or UA enter the total number of times the landing gear was cycled up and down for the mission day. Reenter total cycles to the DA Form 2408-13, block 11, FLIGHT DATA, HSF/CYCLES.

HSF. For the OH-58D helicopter enter the total HSF counts for the mission day. Reenter total HSF counts to the DA Form 2408-13, block 11, FLIGHT DATA, on the TODAY line in the HSF/CYCLES column.

ROUNDS. 7.62: .50 Cal: 30MM: Rocket: HELLFIRE: Enter the total number of rounds fired for each weapon system at the end of the mission day. Reenter the totals to the DA Form 2408-4-1, as required.

HOIST CYC. Enter the total number of rescue hoist cycles at the end of the mission day.

AERIAL REFUEL PROB: EXT, RETRACT, CONNECT. Enter the total number of aerial refuel probe extensions, retractions, and connections at the end of the mission day.

**Figure 2-8. Sample of a completed DA Form 2408-12 (back)—Continued**

## 2-10. DA Form 2408-13

*a. Purpose of the DA Form 2408-13 (see fig 2-9).* DA Form 2408-13 (Aircraft Status Information Record) provides a record of aircraft and aviation associated equipment condition status and other aircraft maintenance information.

*b. Use.* This form is used for aircraft, UAS subsystems, and aircraft or UAS training devices or simulators listed in appendix D for the following:

- (1) To show the present status of the aircraft, UAS subsystems, and aircraft or UAS training devices and/or simulators, maintenance trainer airframes, and aviation mission related equipment aboard the aircraft.
- (2) To show current hours, hours flown today, and total aircraft or UAS subsystems hours.
- (3) To show number of landings and autorotations during the report period.
- (4) To show current HSF count readings today for the T703 engine installed in OH-58D helicopters.
- (5) To sign off daily inspections.
- (6) As a ready reference of the last 5 HIT checks.
- (7) To show when the next phase or scheduled maintenance inspection is due.
- (8) To show APU operational hours and starts.
- (9) To show the number of engine starts.
- (10) To show cycles for fixed-wing aircraft required to track the total number of cycles.

*c. Special instructions.*

(1) This record is automatically generated for LIS users from data on the DA Form 2408-12 and DA Form 2408-13-1.

(2) The crew chief or mechanic-

(a) Makes out a new DA Form 2408-13 after the last flight of the mission day or before the first flight of the next mission day.

*Note.* On maintenance trainer airframes, make out a new DA Form 2408-13 after each major maintenance action.

(b) Perform a daily inspection or PMS when due, using the most current PMD or PMS Checklist for the type and model aircraft or UAS subsystems assigned. Enter all faults found during the inspection on DA Form 2408-13-1.

(c) Enter the correct status symbol for the aircraft, UAS subsystems and the installed aviation-mission related equipment in block 10, System Status Block. There are 14 spaces for system status symbols for aircraft and/or UAS subsystems or aircraft and/or UAS training devices and/or flight simulators, and seven spaces for installed aviation-mission related equipment for use during the mission day. If more spaces are needed during a mission day, start a new DA Form 2408-13.

(d) Closeout DA Form 2408-13 after the last flight of the mission day, by entering the flight time, landings, autorotations, and other required information in the Today blocks. Add these to the CURRENT blocks, and put results in Total Blocks. Enter the HSF counts for the T703 engines from DA Form 2408-12, block 8, in the Total Block.

When using the manual method of recordkeeping, make out a new DA Form 2408-13 making sure the current data are correct.

(e) When performing a "zero time closeout," manual recordkeepers shall enter "0" in the Today Blocks for current aircraft hours, landings, autorotations, and other blocks that apply. Enter the total in the Total Blocks and make out a new DA Form 2408-13, ensuring sure the current data are correct.

(3) The pilot, flight engineer, or AO—

(a) Checks the aircraft, UAS subsystems, and installed aviation mission related equipment condition status shown in the System Status Blocks. The System Status Block must show the condition status of the most serious uncorrected fault on the DA Form 2408-13-1, DA Form 2408-13-2, DA Form 2408-13-3, or the DA Form 2408-14-1.

(b) Checks the DA Form 2408-18 to see if any inspections, services, or replacements are due or overdue.

(c) Performs a preflight check and/or inspection, per TM-10/-10CL, and enters all faults/remarks found on DA Form 2408-13-1.

(d) Enters the date in the Date Block, of the first flight of the mission day, if the aircraft or UAS is safe to fly and can do the assigned mission.

(e) Performs a through or turn around flight check/inspection per TM-10CL, after landing at any intermediate stop, and enters all faults/remarks on DA Form 2408-13-1.

(f) Performs a post flight check/inspection per TM 10 checklist, after the last flight of the mission day, and enters all faults/remarks on the DA Form 2408-13-1.

(4) After extensive maintenance or inspection that requires a test flight, the closed out forms will remain available (preferably in the unit maintenance or quality control office) for the flight or maintenance crew until the test flight is signed off.

(5) A DA Form 2408-13 showing current aircraft or UAS subsystems status shall stay in the logbook, of aircraft or UAS subsystems in administrative storage. DA Form 2408-13, block 10, System Status, must reflect the current condition status symbol for the most serious uncorrected fault/deficiency; unapplied directives, such as SOF messages, ASAMs, AMAMs, MWOs, RSNs; component/module, accessories, or other items due or overdue replacement; or scheduled and special inspections due or overdue completion recorded on the current aircraft logbook forms (see chap 2).

(6) When the engine on a OH-58D helicopter is removed for replacement, the total HSF counts recorded in block 11, shall be entered on the engine DA Form 2408-16, block 7, for example, "21JAN09, HSF counts is 1432, B. Brand, 53rd AVN CO, Fort Leavenworth, KS."

(7) For an OH-58D helicopter, QC shall add the total landings and autorotations touchdown and hovering for the report period to DA Form 2408-16, block 6h, for the corner mounts and restraint springs and shall annotate DA Form 2408-34 for the side beams and transverse roof beams, when landings are zeroed at the end of each report period.

*d. Disposition.*

(1) The closed-out DA Form 2408-13 shall be removed from the logbook at the end of the mission day or before the first flight of the next day. The closed-out form shall be attached to the Flight Pack and sent to the unit maintenance office.

(2) The DA Form 2408-13 shall be filed in the 6 flying-month file and disposed of per the instructions for the 6-month file.

DATE <u>20130925</u>			NUMBERS OF PAGES IN FLIGHT PACK <u>1</u>							
1. AIRCRAFT SERIAL NUMBER 0000000		2. MODEL OH-58D		3. UIC WAXXCO	4. STATION FT HOOD, TX		5. NAME OF CE/MECH J. DOE			
6. ENGINE HIT READINGS			7. APU HISTORY			8. ENGINE STARTS				
DATE	NO. 1	NO. 2		HOURS	STARTS	HR METER	NUMBER 1	NUMBER 2		
20130925	-----	-----	CURRENT	-----	-----	-----	1	-----		
20130925	-----	-----		-----	-----	-----	-----	-----		
20130925	-----	-----	TODAY	-----	-----	-----	-----	-----		
20130925	-----	-----		-----	-----	-----	-----	-----		
20130925	-----	-----	TOTAL	-----	-----	-----	-----	-----		
9. SYSTEM STATUS					10. FLIGHT DATA					
ACFT	/	-----	-----	-----	AIRCRAFT HOURS	STD	LANDINGS AUTOROTATIONS		HSF/ CYCLES	
					CURRENT	830.8	50	0	1	0
ARM	/	-----	-----	-----	TODAY	5.3	9	0	1	0
ELECT	/	-----	-----	-----	TOTAL	836.1	59	0	2	0
OTHER	N/A	-----	-----	-----						
11. SCHEDULED INSPECTION INFORMATION										
a. HOURS OF OPERATION SINCE LAST GENERATION		b. NEXT PHASE/SCHEDULED INSP (NO.)			d. HOURS OF OPERATION TO NEXT PHASE/SCHEDULED INSPECTION		e. PMD DUE			
0		6			40		DATE COMPLETED			
		c. NEXT PHASE/SCHEDULED INSP DUE AT					20130925			
		899.7					PID			
							JD0008			
12. LOCAL USE										
-----										

DA FORM 2408-13, MAR 2014  
EDITION OF OCT 91 IS OBSOLETE

**AIRCRAFT STATUS INFORMATION RECORD**  
For use of this form, see DA PAM 738-751; the proponent agency is DCS, G-4

APD LF v1.00

Legend for Figure 2-9;

Preparation instructions (by block title) for DA Form 2408-13.

*Date.* The pilot, flight engineer, or AO shall enter the date for the first flight of the mission day.

*Number of pages in flight pack.* Enter the total number of pages (black lead pencil) in the Flight Pack (DA Forms 2408-13-1, DA Form 2408-13-2, and DA Form 2408-13-3.) This entry shall change when a DA Form 2408-13-1, DA Form 2408-13-2 or DA Form 2408-13-3 is added to the Flight Pack.

*1. Aircraft serial number.* Enter the aircraft serial number (seven numeric digits, no dashes) or UAS serial number. Computer generated for automated LIS users.

*2. Model.* Enter the aircraft or UAS Model Design Series. Computer generated for users.

*3. UIC.* Enter the unit identification code of the unit or activity owning the aircraft or UAS. Computer generated for automated LIS users.

*4. Station.* Enter the aircraft's or UAS home station. Computer generated for automated users.

*5. Name of CE/MECH.* Enter the name of the assigned crew chief or mechanic.

*6. Engine hit readings.*

*Note.*

Leave these blocks blank when using the manual method of record keeping. Computer generated for automated users.

DATE. Dates of the last five HIT readings.

NO 1. Last five HIT readings for NO 1 engine.

NO 2. Last five HIT readings for NO 2 engine.

7. APU HISTORY.

HOURS, CURRENT. This applies to aircraft or UAS without an hour meter installed. Enter the total APU operating hours, in hours and tenths, from the last mission day DA Form 2408-13. Computer generated for automated users.

HOURS, TODAY. Enter the APU operating hours, in hours and tenths, for the current mission day. Get this information from the backside of the current DA Form 2408-12, block 8, TOTALS, APU: HOURS.

HOURS, TOTAL. Add the CURRENT and TODAY operating hours for the total operating hours.

STARTS, CURRENT. Enter the total APU Starts from the last mission day DA Form 2408-13. Computer generated for automated users.

**Figure 2-9. Sample of a completed DA Form 2408-13 at the end of a mission day**

STARTS, TODAY. Enter the number of APU starts for the current mission day. Get this information from the backside of the current DA Form 2408-12, block 8, TOTALS, APU: STARTS. If APU starts are shown on a start/hour meter, leave this block blank.

STARTS, TOTAL. Add the CURRENT and TODAY STARTS for the total starts. If starts are shown on a start/hour meter, enter the number of starts on the meter, or from the backside of current DA Form 2408-12, block 8, TOTALS, APU: STARTS.

HR METER, CURRENT. This applies to aircraft with an hour meter installed and/or fixed-wing units with a requirement to track Hobbs Meter time. Enter the total APU hour-meter reading. Get the information from the last mission day DA Form 2408-13. Computer generated for automated users.

HR METER, TOTAL. Enter the APU hour meter reading or, for fixed-wing units, enter the Hobbs meter reading. Get this information from the backside of the current DA Form 2408-12, block 8, TOTALS, HOUR METER HOURS.

8. ENGINE STARTS.

NO 1, CURRENT. Enter the total number 1 engine starts or cycles for fixed-wing units, if required to track cycles, from the last mission day DA Form 2408-13. Computer generated for users of automated users.

NO 1, TODAY. Enter the total number 1 engine starts or cycles for fixed-wing, if required, for the current mission day. Get this information from the backside of the current DA Form 2408-12, block 8, TOTALS, STARTS #1.

NO 1, TOTAL. Add the CURRENT and TODAY engine starts or cycles for the total number 1 engine starts or cycles.

NO 2, CURRENT. Enter the total number 2 engine starts or cycles for fixed-wing units, if required to track cycles, from the last mission day DA Form 2408-13. Computer generated for automated users.

NO 2, TODAY. Enter the total number 2 engine starts or cycles for fixed-wing units, if required to track cycles, for the current mission day. Get this information from the backside of the current DA Form 2408-12, block 8, TOTALS, STARTS #2.

NO 2, TOTAL. Add the CURRENT and TODAY engine starts or cycles for the total number 2 engine starts.

9. SYSTEM STATUS. In these boxes enter the status symbols, for the most serious uncorrected faults for aircraft, UAS sub-systems, and aviation mission related systems listed in the FAULT Information block on DA Form 2408-13-1, DA Form 2408-13-2, DA Form 2408-13-3, and DA Form 2408-14-1 starting in the top left box. When there are no faults on the aircraft, UAS sub-system or mission related systems, the mechanic, flight engineer, or crew chief shall enter their last name initial. If a fault is corrected, or a new fault is added, and the status changes, enter the new status symbol in the next open box to the right (for aircraft or UAS subsystem there are 14 boxes that can be used). When all boxes are used, make out another DA Form 2408-13 and enter the status symbol in the top left box. Once you have entered a status symbol in any column in the SYSTEM STATUS block, you cannot erase, initial over or, change it. Record any status changes during the mission day in the next open box to the right. Clear any incorrect entries in accordance with paragraph 1-8.

ACFT. Enter the current condition status symbol for the aircraft or UAS sub-system starting in the top left box. Computer generated for automated users.

ARM. Enter the current status symbol for aviation or UAS mission related armament systems starting in the left box. Computer generated for automated users.

ELECT. Enter the current status symbol for aviation or UAS mission related electronic equipment, such as, radar, camera, infrared, and so on, starting in the left box. Computer generated for automated users.

OTHER. Enter the current status symbol for any other aviation or UAS mission related associated equipment, such as, rescue hoist starting in the left box. Computer generated for automated users.

10. FLIGHT DATA.

AIRCRAFT HOURS CURRENT. Enter the current total aircraft or UAS operating time, in hours and tenths. This time can be found on the previous mission day DA Form 2408-13. Computer generated for automated LIS users.

TODAY. Enter the aircraft or UAS flying time, in hours and tenths, for Today's mission. Get this time from the backside of DA Form 2408-12, block 8, TOTALS, FLIGHT HRS.

TOTAL. Add the CURRENT and TODAY time for the total time, in hours and tenths.

LANDINGS, STD AUTOROTATIONS HOVER TOUCHDOWN. CURRENT. Enter the total standard landings and autorotations hover and touchdown since the first day of the reporting period. Landings and autorotations hover and touchdown can be found on the previous mission day DA Form 2408-13. Computer generated for automated users.

TODAY. Enter the standard landings and touchdown autorotations hover and touchdown accomplished today. Get this information from the backside of DA Form 2408-12, block 8, TOTALS, LANDINGS: STD, AUTO.

TOTAL. Add the CURRENT to the TODAY for the total landings and autorotations hover and touchdown.

*Note.* Before the first flight of a new 1352 Reporting Period, you may line out the CURRENT landings and autorotations and enter "0." DO NOT zero the landings and/or autorotations if the aircraft TM -23 or the UAS sub-system TM -20 requires component replacement or inspections based on total cumulative landings.

HSF/CYCLES. CURRENT. This applies to aircraft, engines, or components with a requirement to track cycles. For fixed-wing aircraft or UA with retractable landing gear, enter the total cycles for the landing gear. For OH-58 aircraft, enter the total HSF counts. Cycles or HSF counts can be found on the previous mission day DA Form 2408-13. Computer generated for users of aviation LIS.

TODAY. For fixed-wing aircraft or UA with retractable landing gear enter the total number of times the landing gear was cycled today. Get this information from the backside of DA Form 2408-12, block 8, TOTALS, CYCLES. Do not enter any HSF counts on this line.

**Figure 2-9. Sample of a completed DA Form 2408-13 at the end of a mission day**

TOTAL. For fixed-wing aircraft or UA with retractable landing gear, add the CURRENT to the TODAY for total cycles. For the OH-58D helicopter enter the mission day's HSF counts on this line. Get this count from the backside of DA Form, 2408-12, block 8, TOTALS, HSF.

*Note.* Compare the HSF counts in this block to the readings in the CURRENT Block to ensure proper operation of the multifunction display. When an engine is replaced, enter the total HSF counts on DA Form 2408-16, block 7, SIGNIFICANT HISTORICAL DATA and on DA Form 2410, block 17a, LCF I. When a replacement engine is installed, line out the CURRENT HSF counts on DA Form 2408-13 and enter the new HSF counts for the replacement engine. Update the multifunction display with the correct HSF counts for the replacement engine.

11. SCHEDULED INSPECTION INFORMATION.

11a. HOURS OF OPERATION SINCE LAST GENERATION. Computer generated for automated users.

11b. NEXT PHASE/SCHEDULED INSP (NO). Enter the number of the next phase or scheduled inspection. Computer generated by automated users.

11c. NEXT PHASE/SCHEDULED INSP DUE AT. Enter the aircraft or UAS hours the next phase or scheduled inspection is due. Computer generated by automated users.

11d. HOURS OF OPERATION TO NEXT PHASE/SCHEDULED INSPECTION. Computer generated by automated users.

11e. PMD DUE. This block is left blank for non-PMD aircraft.

DATE COMPLETED. Enter the date the preventive maintenance daily inspection was completed. DO NOT erase. For aircraft or UAS under PMS maintenance leave blank. PID. Enter the AKO user name of the individual(s) who completed the daily inspection.

*Note.* Any faults found during the PMD shall be entered on the DA Form 2408-13-1 in the first open FAULT INFORMATION block.

12. LOCAL USE: Enter the ground run time and starts for APUs without hour meters that require operating hour and start data per the TM -23 series for aircraft and TM -20 series for UAS (for example, 10 Jan 95, 1 start, .5 hrs.) These data shall be combined with the hours and start data for the first flight of the next mission day and entered on DA Form 2408-12, block 6a, APU: STARTS HOURS for that flight. Other data may be entered in this block as directed by unit commander.

**Figure 2-9. Sample of a completed DA Form 2408-13 at the end of a mission day**

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## 2-11. DA Form 2408-13-1

*a. Purpose of the DA Form 2408-13-1.* DA Form 2408-13-1 (Aircraft Inspection and Maintenance Record) has five major purposes. It provides a place to record aircraft, UAS subsystems and aviation mission related equipment—

(1) Operational remarks and/or faults found during flight or operation, preflight, thru flight, and postflight inspections.

(2) Checks, services, scheduled or unscheduled maintenance inspections, MWOs, RSNs, SCPs, and SOF messages/ASAMs/AMAMs completed or unapplied.

(3) Faults found including battle damage assessment and repair (BDAR): when faults were found, when faults occurred, how faults were recognized, effect faults had on the operation or mission, and corrective actions taken to correct faults.

(4) Man-hours (manpower requirement criteria) it takes to do maintenance and QC work, by military, civilian, and contract maintenance support personnel.

(5) Condition status symbols for aircraft, UAS sub-systems, and aviation mission-related equipment. Used to update the AMSS portion of the Aviation LIS program.

*b. Use.* The DA Form 2408-13-1 is used by the aircraft or UAS crew chief, flight engineer, mechanic assigned, pilot, AO, maintenance and quality-control personnel, the unit commander and their designated representative during flight operations and maintenance operations of aircraft, UA, and UAS sub-systems, aviation mission related equipment, and components/modules to record—

(1) Faults and deficiencies found during ground, flight, or maintenance operations.

(2) Remarks related to flight and condition of the aircraft.

(3) Removal and replacement of repair parts, component/module, or assemblies that affect safety of flight of the aircraft.

(4) Accident/mishap damage, battle damage, or damage resulting from a natural phenomenon, such as wind, rain, water, and so on.

(5) Contamination or suspected contamination by nuclear, biological, or chemical agents.

(6) Scheduled, unscheduled, and/or special inspections, checks, and services due and completed.

(7) Condition status symbols on aircraft, UAS subsystems and aviation mission related equipment.

(8) Component/module, accessories, and other items due replacement at specific flying hours, operating hours, rounds fired, calendar time, and starts.

(9) Uncorrected faults from DA Form 2408-13-3 and deferred faults from DA Form 2408-14-1.

c. *General instructions.* When a new fault/deficiency is entered on DA Form 2408-13-1, or a fault/deficiency has been corrected, check DA Form 2408-13 to see if the status needs to be changed. Whenever a fault or remark is entered in a Fault Information Block, your AKO user name shall be entered in the PID block. When the corrective action has been entered in a Corrective Information Block, the manual recordkeepers shall enter their initials in the PID block (the PID shall be autogenerated for automated users). The TI shall enter their AKO user name in the TIPID block.

(1) *Combining airworthiness releases logbook entries into a single entry supplemented by DA Form 2408-13-2.*

(a) Make the following entry on DA Form 2408-13-1, with a Circled X Status Symbol: "Operate within limitations prescribed in enclosed AWRs dated (list all applicable AWRs by AWR number and date)." The entry shall include all applicable AWRs. A hard (paper) copy of each AWR shall be kept in the paper aircraft logbook. AWRs will be scanned and maintained for the automated logbook.

(b) Make the following entry on DA Form 2408-13-1, with a dash (-) status symbol: "Daily visual inspection due for installed equipment in accordance with AWRs dated: (list all applicable AWRs by AWR number and date) see DA Form 2408-13-2." The entry must include all applicable AWRs.

(c) Initiate a DA Form 2408-13-2 with each and every inspection applicable for the AWRs listed on the DA Form 2408-13-1. All inspections on the DA Form 2408-13-2 must be signed off prior to the first flight of the Mission Day.

(2) *Instructions for the pilot or AO.*

(a) During preflight, thru flight or turn around flight, and postflight inspections, enter all faults found or any remarks on the FAULT/REMARKS line, in the FAULT INFORMATION block. Faults and remarks, such as "FLT 1, Nav. Lights inop"; "FLT 2 OK"; and "Magnetic compass calibration due" are examples of what shall be entered on the FAULT/REMARK line on manual (paper) forms. ULLS-AE users shall use the AIRCRAFT JOURNAL to record mission or activity specific data, remarks and information not recorded elsewhere (do not confuse faults with remarks and/or information, and do not enter faults in the Aircraft Journal area). are examples of what will be entered on the FAULT/REMARK line.

(b) Test flights shall not be numbered on DA Form 2408-13-1. If a maintenance test flight is required between operational (numbered) flights, the operational flight following the maintenance test flight shall carry the next higher number—for example, Flt #1, Flt #2, Test Flight, and Flight #4.

(c) Only one fault/remark per FAULT INFORMATION block is allowed. After entering a fault/remark, the pilot or AO shall enter the status symbol, that they feel is suitable for the fault, in the STATUS block, and complete all applicable sections of the FAULT INFORMATION block..

(3) *Instructions for the Crew Chief, Flight Engineer, or Mechanic.*

(a) The crew chief/flight engineer shall prepare a new Flight Pack after the last flight of the mission day or before the first flight of the next mission day, and shall prepare additional copies of DA Form 2408-13-1 as needed during the mission day.

(b) Enter all faults found during the PMD, PMS, pre-flight, thru-flight, or turnaround flight, and postflight in the FAULT INFORMATION block(s).

(c) When a fault is corrected the person making the correction shall enter the corrective action on the ACTION line, and any other required information in the CORRECTING INFORMATION block.

(d) For ULLS-AE units, remarks shall not be entered in the Fault Information Block (such as, FLT 1 OK). These remarks are made in the Aircraft Journal portion of the system.

(4) *Recording directive.* Record directives such as SOF messages, ASAMs, AMAMs, MWOs, RSNs, SCPs, UAS field notices, or other one-time inspection messages that affect the condition status of aircraft, UAS sub-systems, and aviation mission related equipment aboard the aircraft as follows:

(a) Enter the proper status symbol in the STATUS block in the Fault Information block.

(b) Enter the directive number and an abbreviated title on the FAULT/REMARK line of the Fault Information block. For example, "TB 1-1520-238-07, New Canopy Rem. Sys. Inst. for AH-64A Hel. not applied."

(c) A QC inspector shall ensure compliance with SOF/ASAM/AMAM/SOU messages, UAS-PM field notices and other directives calling for a one-time inspection of the aircraft or UAS sub-system components/modules, assemblies or repair parts. All SOF messages, ASAMs, AMAMs, and other directives calling for a one-time inspection of the aircraft and UAS and non-reportable UAS or aviation-mission related equipment shall be recorded on the DA Form 2408-15 (see chap 4). Directives and application for serialized reportable components/modules installed on the aircraft or UAS shall be recorded on the DA Form 2408-5-1 (see chap 4). When the directive is issued without instructions for entry on DA forms and records, or when a conflict arises between the directive instructions and this pamphlet, the policy and procedures in this pamphlet shall be followed.

(d) When an ASAM, SOF message, AMAM, or other directive is issued and calls for a repeat or recurring maintenance inspection/action, the first maintenance inspection/action of an item shall be recorded on the FAULT/REMARK line. The condition status symbol shall be entered in the STATUS block in the Fault Information block. Make the following entry in the Fault Information block: "Recurring maint action (ASAM, SOF, AMAM, or other directive number)." In the Correcting Information, ACTION line, enter the phrase "First compliance done." The date, man-hours, and other information shall be recorded in the Correcting Information block. The person making this entry



shall initial over the status symbol in the STATUS block. Then, if possible, the repeat/recurring maintenance inspection/action may be entered on the DA Form 2408-18. For example: a repeat/recurring maintenance inspection/action that shall be done every 10 hours or 15 days could be entered on DA Form 2408-18, but an inspection/action that is required before each flight would remain on the DA Form 2408-13-1.

(5) *Recording maintenance inspection due.*

(a) A horizontal dash "-" shall be entered in the STATUS block when the inspection becomes due, or when it is started early.

(b) A grounding "X" shall be entered in the STATUS block when a scheduled phase or periodic maintenance inspection is not completed when due by the flying hours called for in the TM -23 series for aircraft or TM -20 series for UAS sub-systems or other directives.

(c) A grounding "X" shall be entered in the STATUS block when a special or repeat/recurring inspection was not completed by the flying hours, operating hours, rounds fired, starts, cycles or calendar date called for in the TM -23 series for aircraft or TM -20 series for UAS sub-systems or other directives, in accordance with Section 2 of TM 1-1500-328-23.

(d) The type and number (if numbered) of the inspection shall be entered on the FAULT/REMARK line, of the Fault Information Block.

*Note.*

(6) *Recording completion of maintenance inspections.* When all scheduled inspection requirements, listed in the maintenance inspection checklist, and maintenance related actions and other work are done, enter the word "Completed," or a phrase, such as "Phase 2 completed;" "Phase inspection completed;" "Phase Insp compl;" "PMS completed;" "PMS2 completed;" "Inspection completed" on the ACTION line of the Correcting Information block. If you use one or more words describing the correcting information or action taken, it shall not be considered in error. Complete all applicable portions of the Correcting Information block. If a maintenance test flight or MOC is required after completion of the inspection enter the requirement in the FAULT INFORMATION block.

*Note.* When a PMD inspection is completed after the last flight of the mission day, the completion of the inspection is not required on the DA Form 2408-13-1. Record this inspection on the DA Form 2408-13, for the next mission day, per figure 2-8. However, when an aircraft is in flyable storage, the 7-day PMD entry shall be recorded on DA Form 2408-13-1. Enter a dash ( - ) status symbol in the STATUS block, and "PMD Due" on the FAULT/REMARK line, of the FAULT INFORMATION block. Complete all applicable portions of the FAULT INFORMATION block. Upon completion, the PMD inspection shall be signed off by completing all applicable portions of the CORRECTING INFORMATION block.

(7) *Recording Replacement of Components/Modules and Accessories.* When a component/module, accessory, or other items require replacement due by the number of flying hours, operating hours, rounds fired, starts, or calendar time, make entries on DA Form 2408-13-1 as follows:

(a) Enter the proper status symbol in the STATUS block, of the FAULT INFORMATION block. See paragraph 1-8 for the status symbol to use and paragraph 1-9 for clearing status symbols.

(b) Enter the name and type of reportable component/module, accessory, or other item due replacement on the FAULT/REMARKS line, of the Fault Information block (for example, "Gearbox 42 degree due replacement"). Fill in all required information in the FAULT INFORMATION block per figure 2-9.

(c) When a reportable component/module, accessory, or other item is replaced, always include the serial number (SN) of the replacement item (for example, "Gearbox 42 degree replaced with SN B132277," "Gear box repl with SN B132277," "Repl 42 degree gearbox with SN B132277," or "Replaced with SN B132277"). Use of these examples or other words describing the correcting information taken shall not be considered in error.

(d) Make concurrent entries on other DA Forms, such as DA Form 2410s, DA Form 2408-5-1, DA Form 2408-15, DA Form 2408-16, or DA Form 2408-16-1 at this time.

(8) *Recording maintenance test flights, functional check flights and maintenance operational checks.* The requirement for a maintenance test flight or functional check flight shall be entered on a DA Form 2408-13-1. Enter a dash status symbol in the Status Block of the Fault Information Block when a maintenance test flight/function check flight is required per the aircraft or UAS subsystem maintenance manual, or TM 1-1500-328-23. On the Fault/Remark line enter the test/check flight requirement or reason(s) for the test/check flight. For example, "General test flight required for completion of Phase #1," or "Limited test flight due for replacement of engine." When a general test flight is needed, it is not necessary to enter every individual item requiring a test flight. An entry such as "General test flight required for completion of extensive maintenance" or "General test flight required for completion of Phase #3" is sufficient. When a limited test/check flight is needed, enter all the maintenance actions that require a test/check flight. Complete all applicable portions of the Fault Information block. When the test/check flight is completed, the word "Completed" or a phrase similar to "MTF completed," "Test flight completed," "MTF compl," and so forth, shall be entered on the Action line, of the Correcting Information Block, followed by the signature of the test pilot/maintenance designated instructor operator. The remainder of the Correcting Information Block shall be completed per figure 2-9. The person completing the test flight shall initial the status symbol in the Status Block.

(a) If faults/deficiencies are discovered during the maintenance test flight/function check flight, enter the fault/discrepancy in the next open Fault Information Block. The test pilot or maintenance designated IO shall precede each

fault or deficiency with "Test Flight," and complete all applicable portions of the Fault Information Block. The statement "Test flown, not released for flight" is not needed. The original test/check flight entry shall be used for additional test/check flights when further testing is needed. If the test/check flight cannot be completed on that mission day, closeout the flight pack and carry forward all open entries.

(b) When a MOC is required and the MOC cannot be accomplished concurrently with the related maintenance actions, or the MOC is to be performed by an individual other than the mechanic who performed the corrective action, a MOC entry shall be made in the Fault Information Block. On the Fault/Remark line, enter the requirement or reason for the MOC. Complete all required portions of the Fault Information Block. When a MOC is performed after extensive maintenance or periodic/phase maintenance inspection where a MOC of the complete aircraft is required, it is not necessary to enter each requirement. An entry such as "MOC due for completion of Phase #1" is sufficient. When the MOC is completed the word "Completed" or a phrase similar to "MOC completed" shall be entered in the Correcting Information Block. Complete all applicable portions of the Correcting Information block, and initial the status symbol. When an MOC fails clear the original write-up with "MOC further defined, see entry below." Then make a new MOC entry defining the problem.

(c) Maintenance work completed not requiring an engine run up shall be cleared and signed off by the person who did the MOC. Other minor maintenance actions, for example, changing light bulbs, radio checks, changing common hardware (not in flight controls) does not need a separate DA Form 2408-13-1 entry for the MOC, and it may be signed off by the person that did the correcting action. For example, an entry with a diagonal " / " status symbol, "Left wing incandescent lamp inop," may be signed off "Replaced, MOC OK." The person completing the maintenance action and MOC shall complete all applicable portions of the Correcting Information Block and initial the status symbol in the Status Block. A MOC may be entered on the DA Form 2408-13-2 when the MOC is completed as part of the related maintenance actions; however, the MOC must be accomplished concurrently with the related maintenance action.

(9) *Deferred faults.*

(a) Corrective action may be delayed because of lack of repair parts, some other item of supply, or deferred maintenance. The supply requisition number or the maintenance request number shall be printed in the Delay Block, of the Fault Information Block, and manual record keepers may transfer the entry to a DA Form 2408-14-1. The requisition number or maintenance request number shall remain with the entry until the fault is corrected. When parts are available, but would require aircraft or component disassembly to install, the fault may be delayed until the next phase inspection or extensive maintenance. The fault may be transferred to the DA Form 2408-14-1 (manual record keepers) with "Awaiting Phase," "Awaiting PMS2," or other similar remark as a reason for the delay. All information from the Fault Information Block needed to complete DA Form 2408-14-1 shall be entered.

*Note.* Aviation LIS (automated) users are not required to defer faults to the DA Form 2408-14-1.

(b) When reentering a fault to DA Form 2408-14-1, enter the phrase "Reentered to DA Form 2408-14-1" on the Action line, your AKO user name in the PID Block, and date in the Correcting Information Block. The status symbol shall not be initialed since the fault is only reentered to another form.

(c) The decision to defer and reenter a fault to DA Form 2408-14-1 shall be made by the unit or activity commander, equal management or supervisor in contract support maintenance, or their designated representative.

(10) *Flight pack closeout (manual recordkeeping).*

(a) The flight pack shall be closed out and removed from the logbook at the end of the mission day or before the start of the next mission day (see para 1-14d and 1-14e).

(b) A "zero time closeout" may be completed at the discretion of the maintenance officer but it must be performed after completion of extensive maintenance, or a periodic/phase maintenance inspection requiring a general test flight. All forms and records (see paras 1-14d and 1-14e) shall be made available for review prior to the MTF and shall remain available, to the test flight crew, until the MTF is completed. Forward all the forms and records to the maintenance office after the test flight crew is finished with them or the MTF is completed.

(c) When a Flight Pack closeout is performed, all open faults shall be carried forward to a DA Form 2408-13-1 in the new Flight Pack or reentered on a DA Form 2408-14-1. All information in the Fault Information Block shall be carried forward to the new Flight Pack. The person carrying forward the fault on paper forms shall enter "CF" (carried forward) on the Action line of the Correcting Information Block of DA Form 2408-13-1 in the old Flight Pack, the current date in the Date Block, and the AKO user name in the PID Block.

(d) When a Flight Pack is closed-out, and there is an open fault that has generated a DA Form 2408-13-2, the fault may be carried forward by removing the associated DA Form 2408-13-2 from the old flight pack and putting it in the new Flight Pack. The old paper Flight Pack shall then require the pages to be renumbered.

*d. Disposition.* The closed out Flight Pack shall be sent to the unit or activity maintenance office. All completed copies of DA Form 2408-13-1 that were filled out during maintenance operations shall be reviewed for accuracy and neatness, and cross-checked with related historical forms, records, and files (see chap 2). The forms are part of the Flight Pack and are filed in the 6-month file. They are kept for 6 flying months, plus the current month, and then destroyed. Automated users are not required to retain "hard copy" Flight packs after the data have been entered and

verified in the aviation LIS program. Preparation instructions for DA Form 2408–13–1 are listed below. The use of “If Req” or “-” on the sample forms indicates that no information was required for that block.

1. *Aircraft serial number.* Enter the complete aircraft serial number (seven numerical digits) or UAS subsystem serial number.

2. *Model.* Enter the aircraft or UAS mission, design, and series.

3. *Date.* The pilot, flight engineer or AO shall enter the date of the first takeoff of the mission day.

4. *Page.* Pages are to be numbered by the mechanic, crew chief, pilot, flight engineer or maintenance designated IO at the beginning of each mission day. Enter the page number (black lead pencil) beginning with "1." As additional DA Forms 2408–13–1 are added, enter the next page number.

*Part I-Fault Information.* Any person who discovers a fault or condition affecting the operation/flight of the aircraft, training device/simulator, or mission related equipment aboard the aircraft shall record it in a Fault Information Block. *Status.* Enter the proper status symbol in this block. Once a status symbol is entered in the Status Block, it shall not be erased or changed even if entered in error. The person who corrects a “dash” or diagonal “/” fault shall enter their last name initial over the status symbol. A grounding X or circled X status symbol shall be initialed over by a qualified designated representative appointed by the unit or activity commander. When clearing a grounding X or circled X a ballpoint pen with black ink shall be used. The maintenance test pilot or maintenance designated IO shall initial the symbol after he or she completes the test/check flight and the aircraft is cleared for flight. When more than one person completes the corrective action for a fault, other than a phase, periodic, or progressive phase maintenance, the senior mechanic, who performed part of the corrective action shall initial the status symbol for entries with a diagonal “/” or dash status. Initials placed in this block shall not be erased. Changing the status symbol, for armament, electronic, and other mission-related equipment, to a less serious status symbol is not needed for a one-time evacuation mission per paragraph 1–10.

*SYS.* Enter the system code that shows which system the fault is related to. System codes can be found on the DA Form 2408 in front of the logbook.

*Date.* Enter the date a fault is discovered, or a remark is made. When the fault is reentered from the DA Form 2408–14–1 (manual recordkeepers), the original date of the fault shall be entered.

*NO.* Leave blank for units using the manual recordkeeping system. Computer generated by automated users.

*Time.* Enter the time (24-hour clock) the fault was discovered or an inspection and/or service was entered.

*PID.* The person making the entry shall enter their AKO user name or if not assigned an AKO user name use the first name, middle initial and last name

*Fault/Remarks.*

(a) The person who finds a fault or removes a component/module or part shall immediately make an entry in the first open Fault/Remarks section. Enter the proper status symbol in the Status Block, and update the status symbol on DA Form 2408–13, System Status Block, when it applies. Manual recordkeeping instructions for after a flight and no faults are noted, the pilot, flight engineer, or AO shall enter a remark such as “Flt 1 OK,” or if the pilot has a remark to make regarding the aircraft or installed mission-related equipment.

(b) Manual recordkeeping only. Use as many Fault Information Blocks, as necessary to enter a fault, deficiency, or remark. If more space is needed to enter a fault/remark, than is provided in a Fault Information Block then enter “Continued” on the last line of the Fault/Remarks section, and continue the fault/remark in the next open Fault Information Block. If the fault/remark, in the last Fault Information Block on the backside of the form, shall not fit the space provided enter “Continued,” at the end of the last line of the Fault/Remarks section, and continue the fault/remark on the next page.

(c) When a test and/or check flight or MOC is needed after maintenance, enter a dash in the Status Block, and update the DA Form 2408–13 System Status Block. In the Fault/Remarks section, enter “Test Flight Required,” “Test flight due,” “MTF required,” “MTF due,” or “MOC required” and give the reason(s) for the test/check flight or MOC.

(d) Entries are required for aircraft accidents, forced or precautionary landings, airspeed limitations, or engine torque exceeded. Include the cause and damage, if any.

(e) For contaminated aircraft refer to paragraph 1–8 and appendix B.

*AC hrs.* Enter the actual aircraft or UAS subsystem hours at the time the inspection or service was entered, or when the fault was discovered.

*When disc.* Enter the appropriate when discovered code, for faults and discrepancies, from table 1–6.

*How rec.* Enter the appropriate how recognized code, for faults and discrepancies, from table 1–7.

*Mal eff.* Enter the appropriate malfunction effect code, for faults and discrepancies, from table 1–8.

*Delay.* Enter the reason for the delay. For example, enter the work order number of the work request to fix the fault or condition, or enter the supply requisition number for a repair part that is required to repair the fault, or enter "2408-13-2" when a DA Form 2408–13–2 is needed to list related maintenance actions for clearing the fault or deficiencies.

*WUC.* Enter the WUC that best describes which component or module the fault or inspection entry pertains to. If a WUC that applies to the component, module, or area has not been established, enter the functional group code from table 1–10 that best fits the fault or inspection.

*Part II-Correcting Information.*

(a) When a fault, deficiency, condition, or incorrect entry is corrected, directives (such as, SOF messages, ASAMs, AMAMs, UAS-PM field notices, RSNs or MWO's) are applied, and components/modules or other repair parts are removed and reinstalled or replaced. The person making the corrective action shall enter the action taken in the Correcting Information Block, which is to the right of the Fault Information Block. Using words or phrases such as "applied," "tested," "installed," "serviced," "replaced," "repaired," "adjusted," or "erroneous entry" with other brief information about the action shall be enough to describe the corrective action. It shall not be considered in error if one or more words are used to describe action taken. DO not use just the word "corrected." A few examples of what can be entered in the Fault/Remarks, and Correcting Information sections are: 1. "PMD due," "PMS due," "Phase Insp Due," "#2 Phase Insp due" -- "completed," "PMD completed," "PMS completed," "Inspection completed," "#2 Phase Insp completed," and so on. 2. "Test flight due," "Test flight required," "MOC required" -- "completed," "Test flight completed," "Maintenance test flight completed," "MTF completed," "MOC completed," "Maintenance operational check OK," and so on. 3. "Mag compass calibration due" -- "Completed," "Mag compass Cal. completed." 4. "Copilot's door window crazed" -- "Replaced," "Changed," "Window replaced," "Replaced window assy," "Replaced copilot's door window," "Changed window." 5. "Oxygen System low" -- "Serviced," "Oxy. Sys Serviced," "system serviced." 6. "Engine deck torn" -- "Replaced," "Eng. deck repl.," "Deck replaced." 7. "Flight 1 okay," "Flt 2 okay" - "Remark cleared". 8. "Launcher Nitrogen System low" - "Serviced," "Nitrogen serviced."

(b) Upon completion of the corrective action, the person making the corrective action shall place their automated PID, or (manual recordkeepers) initials in the PID Block, and last name initial over the status symbol in the Fault Information Block. To clear a grounding X or circled X symbol, the completed action must be inspected by a technical inspector per paragraph 1-9. If the action is found to be satisfactory, the inspector shall then enter their AKO user name in the TIPID Block, place last name initial over the status symbol in the Fault Information Block, and change the status symbol in the System Status Block on DA Form 2408-13 if it applies. If more than one technical inspector performed the technical inspections to complete the fault correction, the senior technical inspector performing the inspection shall enter their AKO user name in the TIPID Block.

(c) When corrective action is taken by other than the parent unit or designated support activities, the person taking the action shall enter their unit or activity designation in this block. The unit delegation orders are official, and allow the delegated person(s) to sign off grounding X or circled X entries on aircraft belonging to other units or activities. Qualified designated representatives may also certify work performed, or do one time inspections on aircraft belonging to other units or activities. They shall enter the unit or activity in this block, and place their last name initial over the status symbol in the Fault Information Block.

Entries on DA Form 2408-13-1 that call for entries on historical forms and records (see chap 2) (such as replacement of reportable items, ASAMs, AMAMs, SOF messages, UAS-PM field notices, MWO, RSN applications, special inspections, services, and/or replacements performed) are the responsibility of the technical inspector that inspected the corrective action. A checklist (see table 3-7) is provided to help ensure that entries are made on all forms and records (see chap 2 and app A) that apply, before releasing aircraft from maintenance. The checklist is also provided to verify that a quality inspection of forms, records, and files has been accomplished. The use of the checklist is not mandatory; however, it is recommended for newly assigned maintenance and QC personnel.

*Date.* Enter date of the corrective action or remark.

*Time.* Enter the time of day (24-hour clock) the corrective action was completed or remark cleared.

*ACFT hrs.* Enter the actual aircraft or UAS subsystem hours when the remark or corrective action, of a fault, condition, inspection, service, MOC, or test flight, was completed.

*Rounds.* Enter the cumulative rounds fired from DA Form 2408-4-1, block 5e, for armament system faults, discrepancies, and inspections.

*Action code.* Enter the action code from table 1-11 that best describes the action taken.

*WUC.* Enter the WUC that best describes which component and/or module or part the corrective action pertains to. If a WUC has not been established that applies to the component and/or module, part, or area, enter the functional group code from table 1-10 that best fits the corrective action. The corrective action WUC may be different from the when discovered WUC.

*Action.* Enter an abbreviated explanation of the action taken.

*PID.* Because of lack of space, the senior maintenance person shall enter their AKO user name on the last line of the Corrective Information Block, and all maintenance personnel that took part in the corrective action shall enter their initials in this block. When a scheduled inspection (such as, phase, periodic, or progressive phase maintenance) is completed, Do not reenter the AKO user names from the maintenance checklist. The maintenance supervisor shall enter their AKO user name or, if not assigned an AKO user name, use their first name, middle initial, and last name certifying completion of the inspection.

*CAT.* Enter the level of maintenance for the action taken ("F" for field-level, or "D" for sustainment facility (depot)-level).

*Hrs.* Enter the direct "hands on" man-hours, in hours and tenths, expended during the corrective action. This time does not include the time expended chasing parts or tools, but does include time expended filling out forms and records. All personnel completing related maintenance actions on a DA Form 2408-13-2 shall enter man-hours expended in this block. At the completion of a scheduled inspection (such as, phase, periodic or progressive phase maintenance) the

supervisor shall enter the total number of man-hours expended to complete the visual inspection including any required disassembly. The supervisor shall separate the man-hours by category of maintenance. When extensive maintenance is performed, such as an engine replacement, and there is not enough HRS blocks available for all the mechanics performing maintenance to enter their man-hours, the maintenance supervisor may consolidate the man-hours by category and use their AKO user name (or, if not assigned an AKO user name, their first name, middle initial, and last name to enter the man-hours.

*TIPID.* Automated system shall enter the automated PID. Manual record keepers shall enter the AKO user name of the Technical Inspector who inspected the maintenance action or the commander's designated representative. If more than one TI performed the technical inspections of the maintenance action or related maintenance actions, the senior TI performing the inspection shall enter their AKO user name in this block.

*TI Manhours.* This space is provided for technical inspector(s) to enter the man-hours, in hours and tenths required to inspect the corrective action. This shall include the time used for the inspection and to complete forms and records (see chap 2). If more than one TI performed the technical inspections on the maintenance action or related maintenance actions, the senior TI performing the inspection shall enter the total man-hours used to complete the inspection.

## **2-12. DA Form 2408-13-2**

*a. Purpose of the DA Form 2408-13-2.* DA Form 2408-13-2 (Related Maintenance Actions Record) is a supplemental form to DA Form 2408-13-1 and DA Form 2408-13-3. It records maintenance work that is related to faults/deficiencies and inspections entered on the DA Form 2408-13-1 or the DA Form 2408-13-3.

*b. Use.* To record related maintenance actions that are necessary when clearing faults and/or deficiencies and inspections that are entered on DA Form 2408-13-1 and DA Form 2408-13-3. Entries shall be concise, with as few entries as possible to remain safe and to ensure proper maintenance procedures are followed. This form is also used to show the condition status of the fault and/or deficiency or inspections on DA Form 2408-13-1 and DA Form 2408-13-3 and the status of the related maintenance action in the Fault block.

(1) Only one major fault from DA Form 2408-13-1 or DA Form 2408-13-3 shall be entered on each DA Form 2408-13-2, block 7 (Fault). Use one or more DA Form 2408-13-2 to record related maintenance actions needed to correct the fault/deficiency or inspection.

*Note.* When only one related maintenance action is required to correct a fault, units using the manual record keeping method may enter the related maintenance action on the DA Form 2408-13-1 or DA Form 2408-13-3. If more than one related maintenance action is required to correct a fault, the related maintenance actions must be entered on a DA Form 2408-13-2 prepared for the fault. Automated LIS units shall not enter related maintenance actions on DA Form 2408-13-1.

(2) Maintenance man-hours are recorded for each related maintenance task, and for each person doing the work (in hours and tenths of an hour).

(3) May be used as a template/boilerplate for special inspections, phases, and extensive maintenance actions.

### *c. General instructions.*

(1) Crew chiefs and maintenance personnel working on the aircraft or UAS subsystems, and field and sustainment facility (depot) support personnel are responsible for making entries on the DA Form 2408-13-2.

(2) The crew chief, mechanic, or the person doing maintenance work to clear major faults and/or deficiencies with a grounding X, circled X, dash, or diagonal recorded on DA Form 2408-13-1 or DA Form 2408-13-3 shall list required related maintenance task on DA Form 2408-13-2, block 9 (Faults).

(3) Dash status symbol entries may be entered on the DA Form 2408-13-2 when the action is required by the TM 23 series maintenance manual to correct the fault entered in block 7, such as rigging check, inlet guide vane opening check, bleed band closure check, and so on, and can be completed concurrently with the repair action. When these actions are required to be performed after the fault in block 7 is corrected, the check must be entered on the DA Form 2408-13-1. For example, a rigging check required after replacement and/or installation of a flight control may be entered on the DA Form 2408-13-2. Re-torque of the main rotor-retaining nut after 5 hours of operation cannot be entered on the DA Form 2408-13-2 and must be entered on the DA Form 2408-13-1.

(4) All related maintenance actions recorded on the DA Form 2408-13-2 shall show corrective action and clearing of status symbols per paragraph 1-9.

(5) Related maintenance actions are not considered independent faults. They are done to clear faults and/or deficiencies, and shall never be carried forward to any other form or record. Any open maintenance actions that do not constitute a grounding condition, remaining on the DA Form 2408-13-2 after the fault, entered in block 7, has been corrected shall be reentered on the DA Form 2408-13-1 as a fault. When reentering a fault to the DA Form 2408-13-1 enter the phrase "Reentered to DA Form 2408-13-1" in block 10 and enter your AKO user name or, if not assigned an AKO user name, enter your first name, middle initial and last name in block 11. Complete the Fault Information Block on the DA Form 2408-13-1 per the instructions for initial fault entry. The status symbol in block 8 shall not be initialed since the fault is only reentered to the DA Form 2408-13-1.

(6) When the fault entered in block 7 has not been corrected at the time of Flight Pack closeout, remove the DA Form 2408-13-2 listing the related maintenance actions for that fault from the Flight Pack and insert the DA Form

2408-13-2 in the new Flight Pack. The DA Form 2408-13-2 listing the related maintenance actions for that fault shall remain with the DA Form 2408-13-1 on which the uncorrected fault is listed. Change the page numbers of the old Flight Pack after removing the DA Form 2408-13-2.

*d. Special instructions.*

(1) The total maintenance man-hours used to accomplish the related maintenance actions on the DA Form 2408-13-2 shall be added to the man-hours, in hours and tenths that it took to correct the related fault listed on the DA Form 2408-13-1 or DA Form 2408-13-3.

(2) Additional faults on an aircraft, component/module or assembly that are found while in the process of completing related maintenance actions listed on a DA Form 2408-13-2 that are not related to the original fault in block 7 shall be entered as separate faults on a DA Form 2408-13-1 or DA Form 2408-13-3.

(3) This form shall remain filed in the aircraft logbook with the corresponding DA Form 2408-13-1 or DA Form 2408-13-3 as part of the Flight Pack.

(4) Maintenance test flights and/or functional check flights shall not be recorded on a DA Form 2408-13-2, but shall be recorded on the DA Form 2408-13-1.

(5) When a MOC is needed for completion of related maintenance actions, the MOC may be entered on the DA Form 2408-13-2 if the MOC can be completed concurrently with the related maintenance actions.

(6) Automated users shall enter related maintenance actions in the LIS database.

(7) Automated users shall not enter special inspections listed on the DA Form 2408-18 to a DA Form 2408-13-2. Record the accomplishment of special inspections listed on the DA Form 2408-18 on a DA Form 2408-13-1. The DA form 2408-18 inspections are automatically updated when the completion of the inspection is entered from the DA Form 2408-13-1.

(8) Units may list special inspections on the DA Form 2408-13-2. To help cut down on some of the excessive forms in the log book, if there are several special inspections that need to be done at one time, they can be listed on the DA Form 2408-13-2. Make an entry, such as "25-hour inspections due," or "50-hour inspection due" on the DA Form 2408-13-1 and then list all the special inspections required to be accomplished during that time frame on the DA Form 2408-13-2. Automated users may select the 25-hour inspection or 50-hour inspection, and so on from the Inspection Master File and have that on the DA Form 2408-18 and then deselect all the individual special inspections, due at that timeframe, from the inspection master file (do not delete the special inspections from the master file, just deselect it and not add it to the DA Form 2408-18). Then develop a DA Form 2408-13-2 template listing all the special inspections required at that particular timeframe.

*e. Disposition.* The completed DA Form 2408-13-2 is part of the Flight Pack, along with its corresponding DA Form 2408-13-1 or DA Form 2408-13-3 and becomes part of the six flying-month file.

(1) Maintenance supervisors shall check the completed DA Form 2408-13-2 for accuracy, and ensure that all entries agree with the related fault listed on the DA Form 2408-13-1 or DA Form 2408-13-3.

(2) Technical inspectors shall inspect the completed DA Form 2408-13-2 for incorrect entries and to make sure that related maintenance actions are properly cleared per paragraph 1-9 before forms are placed in the 6-month file. Preparation instructions for DA Form 2408-13-2 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

*Date.* Enter the date the DA Form 2408-13-2 was started.

*Page.* Each form in the Flight Pack shall be assigned a page number starting with page 1 for the first DA Form 2408-13-1 in the logbook. When a new DA Form 2408-13-2 is added to the logbook it shall be assigned the next available page number. If there are three DA Forms 2408-13-1 in the logbook, when the DA Form 2408-13-2 is added, the page number of the DA Form 2408-13-2 shall be 4. When this form is used to document related maintenance actions for Field or Sustainment facility (depot) component repair, the DA Form 2408-13-3 used to document initial inspection of the component shall be page 1. The first DA Form 2408-13-2 shall be page 2 and the next page shall be 3.

*1. Status.* Enter the status symbol assigned to the fault or deficiency on the DA Form 2408-13-1 or DA Form 2408-13-3. Do not initial over the status symbol in this block. When the fault, in block 7, is corrected, clear the status for the fault on the DA Form 2408-13-1 or DA Form 2408-13-3.

*2. Serial number.* Enter the serial number for UAS subsystems, and (seven numeric digits) of the aircraft. When this form is used to document field or sustainment facility (depot)-level component repair, enter the component serial number.

*3. System code.* Enter the system code of the fault from the DA Form 2408-13-1 or DA Form 2408-13-3, Fault Information Block.

*4. Time.* Leave blank for manual forms. Automated systems automatically generate the time.

*5. Fault date.* Enter the date of the fault from the DA Form 2408-13-1 or DA Form 2408-13-3, Fault Information Block for manual forms. Automated systems automatically generate the date.

*6. Fault number.* If the computer has assigned a fault number, enter the fault number. Leave blank if no fault number has been assigned or using manual forms.

7. **Fault.** Enter the fault exactly as it is written on the DA Form 2408-13-1 or DA Form 2408-13-3. Only one fault shall be written in this block.
8. **STA.** The person entering related maintenance actions on this form shall enter the proper condition status symbol according to the seriousness of each related maintenance action (see para 1-8). The person who corrects a dash or diagonal fault shall enter their last name initial over the status symbol on manual forms.
9. **Related maintenance actions.** Enter a short description of the related maintenance action to be done to clear the fault listed in block 7. For example, if the status symbol on the DA Form 2408-13-1 is a grounding X for foreign object damage (FOD) to engine, you would enter "Engine inlet cowling removed," "Main drive shaft removed." Enter one related maintenance action at a time in the space provided. Use as many lines and forms, as needed, to enter related maintenance actions called for to clear the fault listed in block 7.
10. **Action.** Enter the corrective maintenance action taken. Do not use the word "corrected." A few examples of what can be entered are as follows:  
 "Copilot's door removed" -- "Reinstalled door," "Replaced door," "Reinstalled copilot's door," "Door reinstalled," "Copilot's door replaced." "Copilot's door window removed" -- "Reinstalled," "Window replaced," "Copilot's door window reinstalled," "Reinstalled window," "Installed window." "White main rotor PC link removed" -- "Reinstalled," "Reinstalled MR PC link," "Reinstalled white MR PC Link." "Engine inlet cowling removed" -- "Replaced," "Reinstalled," "Replaced cowling," "Engine inlet cowl reinstalled." If the unit or activity commander requires a technical inspector signature following the maintenance related action on manual forms, this must be covered in the unit or activity standard operating procedures (SOP). Automated system contains a block for TI information.
11. **PID.** The person completing the related maintenance action shall place their AKO user name in this block. Technical inspectors may enter their AKO user name at the end on block 10 on manual forms.
12. **CAT.** Enter the level of maintenance for the action taken ("F" for Field level and "D" for sustainment facility (depot)).
13. **MMH.** Enter the direct "hands on" man-hours, in hours and tenths, to complete the action taken. Total each level of maintenance by AKO user name and enter the total on the DA Form 2408-13-1 or DA Form 2408-13-3, HRS Block. If the action taken to clear a related maintenance action entered on the DA Form 2408-13-2 is found unsatisfactory the status symbol in block 8, no matter how serious, shall not be initialed over.

## 2-13. DA Form 2408-14-1

a. **Purpose of the DA Form 2408-14-1.** DA Form 2408-14-1 (Uncorrected Fault Record (Aircraft)) provides a record of uncorrected and deferred faults on aircraft, UA, UAS subsystems equipment and aviation-mission related equipment aboard the aircraft. Not used by automated LIS units. This form saves time for units maintaining manual forms.

### b. Use.

- (1) To record uncorrected and deferred faults and the reason for deferral, from the DA Forms 2408-13-1 and DA Form 2408-13-3.
- (2) The maintenance unit or activity commander or commander's designated representative must authorize the delay and determine when a fault shall be reentered to the DA Form 2408-14-1. Required maintenance/repair may be deferred only when the fault shall not affect the safe operation of the aircraft, or the safety of the pilot and crew.
- (3) Faults with a status symbol of grounding X or circled X shall not be entered on this form.
- (4) A dash status symbol may be entered on this form when there is a need to defer the application of a normal MWO or a nonemergency SOF message, ASAM, and/or AMAM. Otherwise, dash symbols shall not be entered on this form.

*Note.* Categories A, B, and maintenance trainer aircraft assigned to the U.S. Army Aviation Logistics Schools may, at the discretion of the school commandant, enter faults with status symbols of X and circled X on the DA Form 2408-14-1.

(5) Faults that have the required parts available for the repair shall not normally be deferred. When there are faults that are labor intensive but do not affect the safe operation of the aircraft the repair may be deferred until the next scheduled maintenance inspection.

(6) Uncleared (open) related maintenance actions recorded on DA Form 2408-13-2 shall not be entered on a DA Form 2408-14-1.

### c. General instructions.

- (1) The DA Form 2408-14-1 shall be completed by the crew chief, mechanic assigned to the aircraft, UAS subsystems or personnel assigned to a higher level maintenance activity.
- (2) Commanders or their designated representatives shall approve fault entries made on the DA Form 2408-14-1.

*Note.* It is not beneficial for LIS units to defer faults from the DA Form 2408-13-1.

(3) The crew chief, mechanic, or person doing maintenance work to clear a fault listed on the DA Form 2408-14-1 shall reenter the fault to the DA Form 2408-13-1 and complete block 9 of the DA Form 2408-14-1.

(4) If a status symbol is initialed in error, enter a remark in the margin of the form stating that the status was initialed in error. Precede the remark with the date, and sign your name after the remark.

*d. Disposition.* When the form is filled and all entries have been reentered to a DA Form 2408-13-1 place the old DA Form 2408-14-1 in the 6-month file. The form will be destroyed with the 6-month file. Preparation instructions for DA Form 2408-14-1 for listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. Page. Enter page number and total number (black lead pencil) of pages.

1. *Nomenclature.* Enter the name of the item.

2. *Model.* Enter the aircraft or UAS Mission Design Series.

3. *Serial number.* Enter the UAS subsystem or aircraft serial number (seven numeric digits).

4. *Status symbol.* Enter the status symbol that was assigned to the fault, as it appears on DA Forms 2408-13-1 or DA Form 2408-13-3. DO NOT initial over the status symbol on the DA Form 2408-14-1 when you reenter an entry to the DA Form 2408-13-1 or DA Form 2408-13-3. You are only reentering a fault and are not clearing the status symbol on this form.

5. *Fault data.*

5a. *System.* Enter the system from the DA Form 2408-13-1 or DA Form 2408-13-3.

5b. *Fault date.* Enter the fault date from the DA Form 2408-13-1 or DA Form 2408-13-3.

5c. *Fault no.* May be left blank, not required.

5d. *Fault.* Enter the fault exactly as it is written on the DA Form 2408-13-1 or DA Form 2408-13-3.

6. *Reason for delay.* Enter the reason for the delay. If the repair is delayed due to shop backlog, enter the work request number. If the repair is delayed because of replacement parts, enter the supply requisition number/DOC number. Enter "Awaiting phase," "Awaiting PMS2," or a similar phrase when the maintenance has been deferred because aircraft, UAS, or component disassembly would cause unnecessary aircraft down time.

7. *DA Form 2408-13-1.* Enter the date the fault was transferred from the DA Form 2408-13-1 or DA Form 2408-13-3.

8. *Approved by.* Enter the AKO user name or, if not assigned an AKO user name, enter the first name, middle initial, and last name of the person that controls the entry of faults from other maintenance forms (see Chap 3) to the DA Form 2408-14-1.

9. *DA Form 2408-13-1.* Enter the date the fault is reentered on the current DA Form 2408-13-1. The person doing the reentry shall enter the phrase "Reentered from DA Form 2408-14-1" following the fault reentry on DA Form 2408-13-1.

## 2-14. DA Form 2408-18

*a. Purpose of the DA Form 2408-18.* DA Form 2408-18 (Equipment Inspection List) provides a ready reference list of all inspections, services, checks, and replacements listed in the special inspections section of the aircraft maintenance manual, TM 23 series, or UAS subsystem maintenance manuals, TM 20 series that are not done during scheduled maintenance inspections and are not recorded on other forms and records.

*b. Use.* Use of DA Form 2408-18 is to maintain—

(1) A list of inspections, services, checks, and replacements to be accomplished, on aviation equipment, at intervals not compatible with scheduled preventive maintenance inspection intervals. For example, if an aircraft has a 150-hour phase inspection interval, an inspection completed at 25-hour intervals is not compatible with the phase maintenance inspection interval.

(2) A list of inspections, services, checks, and replacements that becomes due at two or more of the following frequencies: calendar time, flying hours, actual operating hours, engine/APU starts, and cycles operated. For example: an inspection required every 25 flying hours or 14 days, whichever comes first.

(3) A record of components/modules and accessories that are not serialized that are to be inspected or replaced on a calendar time basis.

(4) A list of directed interim recurring inspections, services, checks, or replacements until they appear in a scheduled maintenance inspection check list (TM 23 series, CL, PMS, PE, phase). The inspection, service, check, or replacement included in a maintenance inspection checklist, shall be lined out or deleted from DA Form 2408-18 list or the inspection master LCF. Over the lined-out entry, write in the date of the preventive maintenance TM change (manual forms only).

*c. Disposition.* Keep DA Form 2408-18 in the aircraft, or UAS subsystem logbook. When the aircraft, or UAS subsystem is transferred within the Army, this form shall go with the aircraft, UA, or UAS subsystem. When the form becomes illegible or mutilated or all entries are lined out, make a new form and remove the old form from the logbook. Retain in the aircraft, or UAS subsystem 6-flying-month file. Preparation instructions for DA Form 2408-18 is listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. Preparation instructions (by block number and title) for DA Form 2408-18. Page \_\_\_\_ of \_\_\_\_\_. Enter the page number and the total number (black lead pencil) of pages.

1. *Nomenclature.* Enter the item name.



2. *Model.* Enter the aircraft or UAS Mission Design Series.
3. *Serial number.* Enter the UAS or aircraft serial number (seven numeric digits).
4. *Insp no.* May be left blank when using the manual record keeping system unless an inspection number has been assigned.
5. *Item to be inspected.* Enter special inspections and/or replacements for aircraft, UA, UAS subsystems, components and/or modules, or accessories using an abbreviated title for the inspection or replacement that—
  - 5a. Are to be tested, calibrated, reworked, or inspected at aircraft operating time in hours or calendar time intervals, not compatible with aircraft scheduled maintenance inspection intervals.
  - 5b. Are to be replaced on a calendar time basis or when items are due replacement on a calendar time basis in combination with operating time (hours) basis (whichever comes first).
  - 5c. Are inspected, serviced, checked, and/or replaced when they become due at the following frequencies:
    - (1) Actual component operating hours.
    - (2) Engine or APU starts.
    - (3) Cycles operated.
    - (4) Hot section factors.
    - (5) Meter readings.
  - 5d. Are replaced on a rounds fired, cycles operated, shelf life, dates of manufacture, or number of engine/APU starts or actual component operating hours.
  - 5e. Are called for on a recurring basis, directed by ASAM/AMAM/SOF/MIM/urgent MWO or an interim message. Once this inspection/replacement is made part of the aircraft maintenance inspection checklist this entry shall be removed.
  - 5f. Use a two-line entry for items calling for inspection/replacement due on a calendar and/or an aircraft, UA, UAS subsystems, or component/module/accessory actual operating time, number of engine/APU starts, and/or cycles. Use one line to note aircraft, UA, UAS subsystems or component/module/accessory operating time, and the other line to note the calendar time. When inspections, services, calibrations, tests, or replacements of items are listed on scheduled maintenance check lists, and come due concurrently with the scheduled maintenance inspection, they shall not be recorded on this form.
6. *Reference.* Enter the TM, TB, or other directive number that calls for the inspection or replacement.
7. *Frequency.* Enter the frequency of the special inspection, test, calibration, or replacement.
8. *Next due.* Use a black lead pencil when maintaining manual forms and enter the aircraft or UA, UAS subsystems operating hours, component/module or accessory operating hours, rounds fired, or the calendar date that the next inspection or replacement is due. (Example: If you did a 6-month inspection on 14 Jul 06, then the next inspection is due on 14 Jan 07. Aviation LIS systems shall compute a 6-month inspection as coming due every 180 days.) When a specific item is due for an inspection, make an entry on the DA Form 2408–13–1. After you make your entries on the DA Form 2408–13–1 and complete the inspection or replacement, erase (manual forms only) the entry in this column and enter the date, rounds fired, component/module, accessory, UA, UAS subsystems, or aircraft operating time, in hours and tenths, that the next inspection or replacement is due. The use of transparent tape in column 8 is authorized on manual forms. Tape must be of the type you can print on with a pencil.  
*Automated LIS users.* When a specific item is due for an inspection or replacement, an entry shall be automatically computer generated on DA Form 2408–13–1. When the corrective action from the DA Form 2408–13–1 is entered into the ULLS–AE database it automatically updates the DA Form 2408–18, block 8, Next Due. If the inspection or replacement is to be completed early and an entry was not computer generated on DA Form 2408–13–1, make an entry on the DA Form 2408–13–1. After completion of the inspection or replacement, make corrective entries on the DA Form 2408–13–1, and update the DA Form 2408–18 portion of the automated database (do only if the entry on the DA Form 2408–13–1 was not computer generated). When components and/or modules are removed for rework, such as rotor head components for rework (turned 180 degrees at 1200 hours) the entire entry shall be lined out upon completion of the rework. When another rotor head is installed without the components being turned 180 degrees, another entry telling you when the rework is due shall be made.
9. *Completed.* This block may be used, as desired.

## **Chapter 3**

### **Maintenance Forms and Records**

#### **3–1. General maintenance forms**

- a. The forms in this chapter are used to perform, schedule, record, track by serial number, and manage maintenance operations of aircraft, UA, UAS subsystems, aviation associated equipment, and reportable components and modules.
- b. Maintenance forms show the results of scheduled and special inspections, checks and services, replacement of reportable components and modules, aviation critical safety items and other nonreportable items aboard aircraft, UA,

and UAS subsystems. The forms show the results of diagnostic checks and form the bond between maintenance and supply actions.

c. This chapter also explains how to use, prepare, process, and dispose of forms used in the support of maintenance.

### 3-2. Product quality deficiency reports

a. *Purpose.* Aviation Standard Form (SF) 368s (Product Quality Deficiency Report (PQDR)) are submitted to AMCOM, CECOM, and TACOM to suggest corrections and improvements to aircraft, UAS subsystems, and aviation-associated equipment, including mission-related equipment, and to alert AMCOM/CECOM/TACOM to problems encountered by the user due to receipt of defective equipment. SF 368 data is used by the national maintenance point (NMP), logistics personnel, UAS, AMCOM/CECOM/TACOM managers and project managers to assess the fault, failure, or condition of items, to validate or change the current maintenance and/or inspection standards to maintain airworthiness, and improve the operational readiness of aviation equipment per AR 750-1. Anyone finding quality deficiencies in Government-owned materiel is required by this pamphlet, AR 702-7 to report the defects to the appropriate Military Service screening point for investigation and resolution. Submit a SF 368 to the appropriate electronic deficiency reporting database in accordance with the SF 368. SF 368s are submitted electronically to the Joint Deficiency Reporting System (JDRS) for AMCOM managed items and the Product Data Reporting and Evaluation Program (PDREP) for CECOM and TACOM managed items to the military service/agency screening point for the item (see table 3-1). For situations where equipment becomes dangerous to people, precautionary messages and safety of use messages should be issued in accordance with AR 750-6.

b. *Two categories of product quality deficiency reports.* The two categories of SF 368s are:

(1) *Category I.*

(a) Must be submitted to the appropriate screening point within 24 hours after discovery of the fault or failure.

(b) Used to describe an unsafe condition, operational or maintenance procedure for aircraft, UAS, UAS subsystems, mission related equipment, components/modules, or repair parts whose use is critical to airworthiness, and any failure that could be expected to cause loss of the aircraft, UAS and/or serious injuries to the air crew, unmanned aircraft crewmember (UAC) or ground personnel.

(c) Used when the reason for failure, identified or suspected, does not provide enough warning for the air crew or UAC to complete a safe landing and would be reasonable to assume that the problem could be present in other UAS or aircraft of the same MDS.

(d) Used to report incorrect or missing data in technical publications that may cause a hazardous operational or maintenance problem.

*Note.* Report all other technical publication's errors on DA Form 2028.

(e) Activities preparing a Category I SF 368, shall forward an informational copy to their Army command (ACOM), Army service component command (ASCC), and/or direct reporting unit (DRU). An information copy shall be furnished to the U.S. Army Safety Center at Ft. Rucker; e-mail to [usarmy.rucker.hdqa-secarmy.mbx.safehelpdesk@mail.mil](mailto:usarmy.rucker.hdqa-secarmy.mbx.safehelpdesk@mail.mil); DSN 558-9528/2266/9478, commercial 334-255-9528/2266/9478.

(2) *Category II.*

(a) Must be submitted to the appropriate screening point within three workdays after discovering the fault or failure. The owning or support activity finding the fault or failure must prepare and submit an electronic SF 368 to the appropriate deficiency reporting database (JDRS or PDREP) or submit the original SF 368 directly to the appropriate commander, listed in table 3-1

(b) For items that do not meet the definition of a Category I SF 368.

(c) For items that may adversely affect serviceability, durability, maintainability and/or reliability of an UAS or aircraft system, subsystem, repair part, component and module, and/or mission related equipment.

c. *Transmission.* Submit AMCOM managed item SF 368s through the JDRS database (<https://jdrs.mil>).

(1) Access to the JDRS database is as follows:

(a) Enter "<https://jdrs.mil>" into a new window browser and select 'Enter' on the keyboard.

(b) Read the "DOD Warning Banner" and select the "OK, Proceed To Application" button at the bottom of the DOD Warning Banner.

(c) Select "Login" under "CAC Users," (for registered JDRS users only).

(d) Nonregistered users cannot log in to the JDRS database; however, they can still submit a SF 368 electronically from the database.

(e) From the JDRS Login screen, select "TOOLKIT" at the top of the page. Click on New Users "JDRS Users Request."

(f) Select "Initiate DR" located under "TOOLKIT, SITE ACCESS and HELP."

(g) Select "Army" from the drop down menu and select the "Select" button.

(h) Select Aviation or Missile from the "Community" drop down menu and select the type of report being submitted (SF 368 Category I or SF 368 Category II) and select the "Initiate DR" button.

(i) Fill in all blocks of the electronic SF 368 as possible. Once the form has been completed, select the "Continue"

button at the bottom of the form, once the next page comes up, scroll to the bottom of that page and select "Submit". If the Submit button is not selected, the SF 368 will be saved as a draft report and be automatically deleted after 72 hours and cannot be retrieved. If you have any issues submitting a SF 368, please contact customer support at (256) 876-5086/842-7910/DSN 746-5086/788-7910 or send an email to [usarmy.redstone.amcom.mbx.immc-pqdr@mail.mil](mailto:usarmy.redstone.amcom.mbx.immc-pqdr@mail.mil). Ensure you give a good point of contact phone number to contact you.

(j) For requesting access to JDRS (to become a registered user). Type in "https://jdrs.mil" into a new window browser and select Enter on the keyboard; Read the "DOD Warning Banner" and select the "OK, Proceed to Application" button at the bottom of the DOD Warning Banner; Select "SITE ACCESS" at the top of the page; Select "Registration Handbook" and download instructions for registering in JDRS; Select "SITE ACCESS" at the top of the page once again and select "New User Registration;" Read the "Privacy Act Statement" and select the "I acknowledge disclosure of Privacy Act information within the JDRS system" block, fill out the registration per the instructions downloaded previously and submit request. You should receive access within a few days. If at any time you have questions of problems please contact customer support at (256) 313-1577 or send an email to [usarmy.redstone.amcom.mbx.immc-pqdr@mail.mil](mailto:usarmy.redstone.amcom.mbx.immc-pqdr@mail.mil), ensure you give a good POC phone to contact you at.

(2) For access to PDREP for CECOM and TACOM managed items for Aviation items log in to "https://www.pdrep.csd.disa.mil/" and request access or submit your SF 368s for CECOM or TACOM managed items.

(3) SF 368s may also be submitted by e-mail, FAX, or regular mail, using SF 368 (hardcopy or electronic) if either of the electronic databases are unavailable. When e-mail is used, the format must follow the SF 368 format.

*d. Conditions for submitting a product quality deficiency reports.*

(1) A materiel failure or fault that would cause a hazard to personnel, equipment, or safe completion of the mission.  
(2) The equipment does not work properly because of bad design and/or materiel, or low-quality workmanship during manufacture, modification, conversion, repair, overhaul, or rebuild.

(3) When environmental conditions cause aircraft, aviation associated equipment, including mission related equipment, components and modules, repair parts, systems, and/or subsystems to fail.

(4) When a SFDLR item is found, during initial test or use, to be defective and such defect is not caused by user accident, misuse, improper installation and/or operation, unauthorized repair, or alteration.

(5) When submitting a SF 368 to recommend improvements to materiel, you should also consider turning in your idea through the Army Suggestion Program.

*Note.* When submitting a SF 368 as informational only and do not require an investigation by the SF 368 Screening Point, enter "SPO" (Statistical Purposes Only) in Block 22 of the SF 368.

*e. Special conditions for submission of a product quality deficiency report.*

(1) A Category I SF 368 shall be prepared and submitted to the screening point within 24 hours upon discovery of any condition involving personnel safety or safety of flight, as defined in AR 95-1 or AR 95-23 (UAS).

(2) A SF 368 shall be prepared and submitted per DA Pam 385-40, when suspected or confirmed materiel failure is the cause of an aircraft mishap.

(a) When an accident investigation board has recognized and documented materiel failure as an actual or possible cause, the board shall prepare and submit a Category I SF 368. The SF 368 shall include all available failure data and refer to the Mishap Report per DA Pam 385-40. AMCOM shall be kept informed of any further developments of the investigation. The person that prepared the Category I SF 368 shall include telephone numbers (Commercial and DSN) where he or she can be contacted after AMCOM receives the initial report.

(b) When specifically requested by the Accident Investigation Board, AMCOM shall immediately send a representative who is an expert on the concerned aircraft or UAS. Each SF 368 shall include information about the UAS or aircraft system, part, or area that is a possible factor. From this information the AMCOM representative can determine any necessary supporting data to bring for the accident investigation. Requests should be forwarded by the quickest means to the Commander, AMCOM (AMSAM-RD-AE), Redstone Arsenal, Huntsville, AL 35898-5000.

(3) Anytime an abbreviated aviation accident report (AAAR) is submitted to Ft. Rucker on an item.

*Note.* A deficiency report is not needed just because there was a mishap.

*f. Conditions that do not require a product quality deficiency report.*

(1) Conditions resulting from normal wear, prolonged exposure to extreme weather conditions, or problems that seem minor.

(2) When corrective action has been published in ASAM/SOF messages or Technical Bulletins.

(3) Conditions resulting from operator and/or maintenance induced errors (that is, improper installation and/or operation, unauthorized repair, alteration, blade strike or ground towing damage).

(4) Items purchased locally or repaired under a locally authorized repair contract. Use local procedures to report these items.

(5) Preservation, packaging, or marking errors (see AR 735-11-2).

(6) Shipping type errors such as overages, shortages, wrong item received, or shelf life expiration. Report these problems on the SF Form 364 (Report of Discrepancy (ROD)) (see AR 735-11-2).

(7) Transportation type errors such as loss or damage during transportation. Report these problems on DD Form 361 (Transportation Discrepancy Report (TDR)). See Defense Transportation Regulation 4500.9-R.

(8) Items received by a foreign government through the Military Assistance Program (see AR 12-12).

(9) Medical materiel.

(10) Subsistence materiel.

(11) Malfunctions involving ammunition and explosives (see AR 75-1).

(12) Components and modules that are removed and/or replaced during controlled exchange or that do not correct the fault.

(13) FOD to turbine engines.

(14) Items removed because of AOAP lab recommendations.

g. The SF 368s shall not be withheld for any of the following reasons:

(1) Manufacturers' representatives have shown that they are aware of the problem.

(2) Another unit within your command has already sent a deficiency report on the same problem.

h. *Hot line numbers.* The AMCOM Quality Deficiency Report phone number (during regular duty hours) is DSN 788-6665, or commercial (256) 842-6665. After regular duty hours, weekends, or holidays contact AMCOM Operations Center at DSN 897-2066 or commercial (256) 3130-2066. E-mail address is aoc@redstone.army.mil or FAX DSN 746-4591 or commercial (256) 876-4591.

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**Table 3-1**  
**Product quality deficiency report screening point addresses**

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**SF 368 Screening Point Address for: AMCOM**  
**MAT CAT position 1: H, L**

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or RIC: B17 and B64 (and DLA Items) or FSC: 1280, \*1336, 1340, \*\*1337, 1338, 1410 - 1450, 1510 -1730, 1810 - 1850, 2810, 2840, 2845, 2915, 2925, 2935, 2945, 2995, 3110 - 3130, 4920, 4935, 4960, 5303, 5365, 6340, 6605, 6610, 6615, 6620, 6920, 8140, 8415, 9135

**Send to:**

Commander U.S. Army AMCOM  
AMSAM-MSC-CLP  
Redstone Arsenal, AL 35898-5000  
Department of Defense Activity Address Code (DODAAC): W81D17  
Phone Number: Voice (256) 842-6665 or (256) 842-3234, DSN 788-6665/3234  
FAX: DSN 746-4904 or commercial (256) 876-4904  
E-mail: usarmy.redstone.amcom.mbx.immc-pqdr@mail.mil  
Send Message to CDR AMCOM REDSTONE ARSENAL AL//AMSAM-MSC-CLP//

**Notes:**

\* To determine correct address for particular NSNs under FSC 1336 check the AMDF for position 1 of the MATCAT.

\*\* If it is not clear where the report should go, send it to the Commander, U.S. Army Materiel Command, 9301 Chapek Road, Fort Belvoir, VA 22060-5527.

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**SF 368 Screening Point Address for: RDECOM-ARDEC**

**MAT CAT Position 1: M**

or RIC: B14 (and DLA Items)

or FSC: 1005-1055, 1090-1270, 1285-1330, 1336, 1345-1398, 3405-3450, 3611, 3620, 3645, 3650, 3660-3685, 3690, 3693-3695, 4921-4925, 4931-4933, 4940, 5220-5280, 6650, 6665, 6920, 8140

**Send To:**

Commander U.S. Army RDECOM-ARDEC  
RDAR-QEP  
1 Rock Island Arsenal Rock Island, IL 61299-7300  
DODAAC: W91AS2 Hot Line Numbers: Voice: DSN: 793-4663 or 793-6655, Commercial (309) 782-4663 or (309) 793-6655  
FAX: DSN: 793-6653 or Commercial (309) 782-6653  
E-mail: usarmy.ria.ardec.mail.ardec-qdrs@mail.mil  
Send message to: CDRRDECOM-ARDEC ROCK ISLAND IL//AMSRD-AAR-QEP-C//

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**Table 3-1**  
**Product quality deficiency report screening point addresses—Continued**

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**SF 368 Screening Point Address for: CECOM**

**MAT CAT Position 1:** G, P, Q, U, J or RIC: B16, (and DLA Items)

or FSC: 1070, 1075, 1080, 2596, 2598, 2691, 3610, 4120, 4130, 4320, 4400-4490, 4520, 5450, 5805, 5810, 5811, 5815-6080, 6105, 6110, 6115, 6125-6145, 6350, 6605, 6615, 6625, 6660, 6665, 6675, 6680, 6695-6780, 6920, 6940-7050, 7450, 7550, 8130

**Send to:**

Commander U.S. Army CECOM

AMSEL-LCL-DSS-PQ

Aberdeen Proving Grounds, MD 21005-1845

DODAAC: W15GK9 Telephone: DSN: 848-6310/6313 or Commercial (443) 861-6313 / (443) 861-6310

AX: DSN 848-6356 or Commercial (443) 861-6356

E-mail: usarmy.APG.cecom.mbx.lrc-leo-b16-pqdr-support-team@mail.mil

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**SF 368 Screening Point Address for: TACOM-Warren**

**MAT CAT Position 1:** K or RIC: AKZ (and DLA Items)

or FSC: 2310 - 2315, 2320, 2325-2340, 2325 - 2340, 2410 - 2430, 2520, 2590, 2610, 2630 - 2805, 2815, 2910 - 2950, 3020, 3040, 3110 - 3130, 3805, 3810, 3815, \*3820, 3825, 3895, \*\*3990, 4310, 5430, and 2350 (except SP artillery and antiaircraft guns)

**Send To:**

Commander U.S. Army TACOM AMSRD-TAR-E/DLA Warren, MI 48397-5000 DODAAC: W81D19

Hot Line Numbers: Telephone: DSN: 786-5422 or Commercial (586) 282-5422

FAX: DSN: 786-5666 or Commercial (586) 282-5666

E-mail: usarmy.detroit.rdecom.mbx.tardec-product-qual-deficiency@mail.mil

**Note:** \* Cargo net only. \*\* Well-drilling equipment only

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**SF 368 Screening Point Address for: JMC**

**MAT CAT Position 1:** D or RIC: B14 (ammunition only)

or FSC: 1300 - 1399

**Send To:**

Commander U.S. Army JMC

AMSJM-QAO

1 Rock Island Arsenal Rock Island, IL 61299-6000

DODAAC: W52P1J

Hot Line Numbers: Telephone: DSN: 793-2697/7107 or Commercial (309) 782-2697/7017

FAX: DSN 793-7341 or Commercial (309) 782-7341

E-mail: usarmy.ria.jmc.mbx.qdr@mail.mil

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### **3-3. Product quality deficiency report exhibits**

*a. Purpose* The SF 368 exhibits provide additional evidence and data that may be related to the deficiency or failure of an item reported in a SF 368. Exhibits shall be selected, retained, packaged, marked, and disposed of per procedures below.

*b. General instructions.*

(1) *Selection of exhibits* The originating point shall assure that exhibits to support the SF 368 investigation are available, secured and segregated from all other materiel, and identified with the properly completed tags (DD Form 2332 (Product Quality Deficiency Report Exhibit) and DD Form 1575 (Suspended Tag-Materiel)). The following may be selected as exhibits:

(a) Items that are reported as Category I SF 368s.

(b) Items that have been requested by the AMCOM action offices to be held as exhibits.

(c) Items that have manufacturing, modification, conversion, overhaul, or repair deficiencies and the person that prepares the SF 368 feels there is a need for the analysis.

(2) *Retention of exhibit.*

(a) For both Categories I and II SF 368s a statement on the availability of the exhibit shall be annotated in block 23 of the SF368 paper form or Block 21B of the JDRS electronic submission form (see para 3-2). This statement shall include the name and phone number (DSN and commercial) for a point of contact at the location where the exhibit is being held. The originating point or support activity shall hold all exhibits for 55 calendar days from date of discovery, or upon receipt of disposition instructions and the item is shipped or the SF 368 is closed without an exhibit requested, and the closing states to turn the item in through normal supply channels, whichever comes first.

1. Category I reports shall be acknowledged within 24 hours of receipt by AMCOM (except on weekends and holidays).

2. Category II reports shall be acknowledged and a review completed within 10 calendar days of receipt by the screening point. The action point shall complete an acknowledgment and review within 10 calendar days of receipt from the screening point. If disposition instructions have not been issued 55 calendar days from SF 368 submission, the action point shall issue instructions to hold the exhibit an additional 60 calendar days pending further disposition instructions.

(b) Items held as SF 368 exhibits shall be tagged with a DD Form 1575 (Suspended Tag-Material) per paragraph 3–20 and DD Form 2332 (Product Quality Deficiency Report Exhibit) per paragraph 3–6.

(c) Separate the exhibit from other repair parts/components or modules in a secure area, while awaiting disposition instructions. Aviation field personnel shall safeguard the item and prepare it for shipment, taking care to package and hold for shipment samples of any fluids removed. Clean only as needed to ship the item. DO NOT disassemble, attempt repair, or remove evidence such as heat discoloration, splinters, or corrosion. When contaminants or foreign materiel is suspected as the cause of the fault or failure, photographs shall be taken before cleaning and forwarded with the SF 368 exhibit.

(3) *Initiation of product quality deficiency report exhibit.* The originating unit or support activity which is holding an exhibit shall ensure that contract field service (CFS) representative's, or prime contractor representative's, or other contractor's request for a suspected component and module that is being used as a SF 368 exhibit is sent through the supporting aviation support company (ASC) or aviation classification repair activity sustainment facility (depot) activity to AMCOM, CECOM, and/or TACOM for approval. SF 368 exhibits shall not, under any condition, be released or shipped to contractors without AMCOM, CECOM, and/or TACOM action office's disposition instructions, through the proper accountable officer. When disposition instructions or request from the action point to hold the exhibit an additional 60 calendar days has not been received from the action point after 55 days from the submission date of the SF 368 letter to the screening point, action shall be taken by the SF 368 originating unit and/or supporting activity to dispose of the item through normal supply channels. This action will alleviate the chance of being charged for holding the item over 60 days and also keeps the supply system moving parts back to repair facilities. Remove the previously attached DD Form 2332 and DD Form 1575 from the item(s) and DD Form 1575–1 from the container(s), and attach the appropriate DD Form 1577 (Unserviceable (Condemned) Tag-Materiel/DD Form 1577–1 (Unserviceable (Condemned) Label-Materiel) tag and label before turning the item in to supply. This action shall prevent the sustainment facility (depot) or contractor from performing costly tear down analysis on items that were not selected as SF 368 exhibits.

*c. Disposition of exhibit.*

(1) Disposition instructions for all aircraft, UAS subsystems, and aviation associated equipment items shall be furnished by the AMCOM/CECOM/TACOM action offices within 30 to 60 calendar days from the date of receipt of the SF 368. Keep the exhibit(s) segregated from all other parts and components until disposition instructions are received.

(2) Upon receipt of written communication from the action point to ship the exhibit, the SF 368 initiating activity shall coordinate with the support activity, if the exhibit was shipped to a support activity for holding, to ensure that the exhibit is preserved, tagged, and packaged correctly to prevent additional damage during handling and shipping. DA Form 2410 and DA Form 2408–16; DA Form 2408–16–1, DA Form 2408–33; and DA Form 2408–5–1 on reportable components and modules listed in TB 1–1500–341–01 shall be shipped with the exhibit, along with a copy of the SF 368, copy of the disposition instructions and 4 copies of DD Form 1348–1A (Issue Release/Receipt Document). Units or activities holding SF 368 exhibits shall follow the preliminary or material disposition instructions provided by the action point and will not deviate from them. If there are questions or issues about the disposition instructions, the holding unit or activity shall not move the exhibit until contact is made with the action point and obtain clarification on what to do.

(3) The disposition instructions furnished by the action point shall list the assigned report control number (RCN), as well as accountability, disposition, documentation required inside and outside of container along with transportation information. The SF 368 exhibit shall be shipped per instructions within 5 working days. To maintain control and accountability during exhibit processing and shipping, procedures in the next paragraph shall be followed.

*d. Transportation and marking of product quality deficiency report exhibits.*

(1) SF 368 initiating units or support activities shall arrange for the most expeditious delivery or shipment of Category I (Army priority 01, USAF MAC 999) and Category II SF 368 exhibits per disposition instructions received from AMCOM, CECOM, and/or TACOM. Containers for exhibits shall be clearly, permanently, and conspicuously marked per the disposition instructions.

(2) The shipping containers shall be marked in bright red or international orange on a white background and in a large enough size to allow for ease of visual identification in accordance with the disposition instructions. Markings shall be one inch letters or larger when the size of the container will allow.

(3) When the shipping container is too small for the prescribed markings, a DD Form 2332 shall be used for the purpose of marking the outside of the container. Annotate the SF 368 RCN in DD Form 2332, Block 1 and in the Remarks Block of the DD Form 1575 (Suspended Tag-Materiel) that are required to be attached to the item and container.

(4) A copy of DD Form 1348-1A (Issue Release/Receipt Document) (shipping document) or DD Form 250 (Material Inspection and Receiving Report), or DA Form 2765-1 (Request for Issue or Turn-In), or DD Form 1149 (Requisition and Invoice/Shipping Document) shall be forwarded to the AMCOM/CECOM/TACOM QDR office by email or fax as indicated in the disposition instructions. This documentation is needed to track the exhibit through the Army Supply System and to process the credit for the QDR initiator. The burden of providing needed documentation

lies with the person that prepared the SF 368. Do not assume that your supply support shall forward this documentation to AMCOM/CECOM/TACOM. When filling out the DD Form 1348-1A, follow the block by block instructions received in the disposition instructions provided by the action point

(5) Information concerning exhibit disposition instructions or transportation support can be obtained from the AMCOM/CECOM/TACOM office working the SF 368.

*e. Tear down analysis.*

(1) AMCOM/CECOM/TACOM shall authorize tear down and analysis at qualified military maintenance and/or contractor facilities.

(2) The maintenance facility or contractor shall notify the AMCOM/CECOM/TACOM action officer, investigating the SF 368 within 5 working days after receipt of a SF 368 exhibit. The action officer will annotate in the appropriate SF 368 database when the exhibit ships and arrives. JDRS sends notification of shipment and receipt of exhibits via e-mail to the origination point of the SF 368, screening point and action point personnel. Maintenance facilities and/or contractors shall submit in writing a forecasted completion date of the analysis. If the forecasted completion date cannot be met, an interim notice shall be provided to the same addresses advising of the new analysis completion date. If AMCOM/CECOM/TACOM fails to receive a forecast date within 14 workdays after the maintenance facility or the contractor receives the exhibit, the action officer shall contact the maintenance facility or the contractor to make sure that a forecasted date and follow up dates are furnished.

(3) Upon completion of the analysis of each SF 368 exhibit, the maintenance facility or the contractor shall furnish one copy of the final tear down and analytical report to the action officer investigating the SF 368, who will upload the report into the deficiency reporting database and it becomes a permanent part of the SF 368 record. A copy of the report shall be sent to the proper action officer, indicated in the exhibit disposition instructions. The action officer shall keep the related SF 368 in an active status until a decision for corrective action has been reached and approved; for example, change in technical documentation approved, issue of a formal ECP, Notice of Revision, or minor alteration approved. After approval of corrective action, the action officer shall provide the field unit or activity, which prepared the SF 368, with a final reply as to what corrective action shall be taken to resolve the fault or failure reported. The action officer will provide the reasons for closing a SF 368, what action will be taken and will send emails to all individuals involved the SF 368. The goal is to reach a decision on Category I SF 368s within 30 days and Category II SF 368s within 180 days. However, these goals depend upon shipment, handling, tear down analysis, research, and thorough investigation of the deficient item. These processes can delay the decision for proper corrective action and the final reply to the field. In cases like this, AMCOM/CECOM/TACOM action officers shall furnish the unit or activity that prepared the SF 368, an interim status report and a forecasted date for the final report. On AMCOM managed items credit may be given back to a unit or activity as soon as the exhibit arrives at its destination in the disposition instruction and a copy of the DD Form 1348-1A is sent to the screening point by email or fax (the preferred methods), or regular mail.

### **3-4. DA Form 2402**

*a. Purpose.* DA Form 2402 (Maintenance Tag) serves as an identification tag.

*b. Use.* Form identifies items as needed. For example, receipt for test, measurement, and diagnostic equipment items needing calibration or for receipt of ALSE.

*Note.* Also tag UAS subsystem, aircraft, and aviation associated equipment items with materiel condition tags as called for in paragraph 3-18 through 3-24.

*c. General instructions.*

(1) The DA Form 2402 has four copies.

(a) Copy 1 serves as a receipt for the maintenance unit.

(b) Copy 2 use as needed or as locally prescribed.

(c) Copy 3 serves as a receipt for support units.

(d) Copy 4 identifies the item that is tagged and stays with the item until it is issued for use.

(e) Not all copies may be needed, it depends on the item that is tagged, repair needed, and level of maintenance work.

*Note.* The DA Form 2402 is not used to identify SF 368 exhibits.

(2) Use a separate DA Form 2402 for each item.

(3) When the form is used as a receipt the top portion is returned to the customer.

*d. Disposition.*

(1) Destroy the DA Form 2402 when the repair part, or component and module it applies to is installed or disposed of.

(2) Destroy copies used as a receipt after the maintenance, repair, or exchange action is completed. Preparation instructions for DA Form 2402 for listed below.

1. SUPPORT AGENCY (DODAAC). Enter the support activity DODAAC where the item is to be exchanged.

2. DATE. Enter the date the item was prepared for exchange.
3. ORGANIZATION (DODAAC). Enter the DODAAC of the unit or organization exchanging the item.
4. WARRANTY/EXCHANGE. Place an "X" in the block to identify the item as a reparable exchange item. This form shall not be used for SF 368 exhibits.
5. NSN. Enter the NSN of the item.
6. NOUN NOMENCLATURE. Enter the name of the item. If space is not available, shorten or abbreviate the name.
7. PD. Enter the priority designator (PD) assigned to the unit or organization listed in block 3. When the exchange is in support of a customer's maintenance request, use the PD of the maintenance request.
8. PD AUTHENTICATION. The commander or the designated representative shall sign here when a PD of 01 through 10 appears in block 7. When the transaction supports a customer maintenance request, enter the WON.
9. END ITEM NOUN NOMENCLATURE. Enter the name of the next higher assembly that the item was removed from.
10. MODEL. Enter the model number of the end item.
11. SERIAL NO. Enter the Serial Number of the end item. For aircraft, use seven numerical digits.
12. DEFICIENCY OR SYMPTOM. Enter a brief description of the fault or failure of the item in block 6.
13. DATE ACCEPTED. When the form is used as a receipt, the exchange facility shall enter the date they accepted the item.
14. SIGNATURE. The person who receives the item for reparable exchange shall sign their name.
15. NMCS. Print the word "YES" for a NMCS condition.
16. JON. The repair facility enters the work order number from DA Form 2407 (Maintenance Request).
17. INITIALS. First and last name initials of the person receiving the item for repair.
18. DATE REPAIRED. The person doing the work puts the date the item was repaired in this block.
19. INITIALS. First and last name initials of the person who repaired the item.

### 3-5. DD Form 2332

*a. Purpose.* DD Form 2332 (Product Quality Deficiency Report Exhibit) serves as an identification tag for repair part(s), component(s) and module(s), assemblies, or subassemblies that have been selected by an AMCOM/CECOM/TACOM action office, as a SF 368 exhibit.

*b. Use.* Identifies items as a SF 368 exhibit(s). A separate DD Form 2332 is used for each item of materiel that has been selected by AMCOM/CECOM/TACOM as a SF 368 exhibit.

*c. General instructions.* The maintenance activity which identified the deficient item of materiel shall fill out the two-sided DD Form 2332 and attach it to each SF 368 exhibit. This form shall not be used in place of Materiel Condition Tags covered in paragraph 3-20 through 3-26. When a SF 368 exhibit is packaged or placed in a container, a DD Form 2332 shall also be attached to the outside of the container for easy identification as a SF 368 exhibit.

*Note.* Aircraft, UA, UAS subsystems, components and modules or parts that are designated for tear down analysis shall be processed using the procedures in DA Pam 385-40 and paragraph 3-3e of this pamphlet.

*d. Disposition.*

(1) The DD Form 2332 shall remain attached to the SF 368 exhibit and the container, of the exhibit, until completion of the analytical tear down analysis by a sustainment facility (depot) level maintenance activity (organic or contract support).

(2) Upon completion of the tear down analysis the form shall be destroyed. Preparation instructions for DD Form 2332 are listed below.

1. *Report control number.* The SF 368 RCN obtained from block 3 of the original SF 368.
2. *Date.* The date the SF 368 exhibit was prepared for shipment.
3. *Originating activity.* The name and address of the facility shipping the exhibit.
4. *National stock number.* The NSN of the exhibit from block 5 of the original SF 368.
5. *Part no..* The part number of the exhibit from block 8 of the original SF 368.
6. *Serial/lot/batch no.* The serial number of the exhibit from block 9 of the original SF 368.
7. *Contract no.* The contract number, if applicable.
8. *Qty received.* Total number of items received.
9. *Qty deficient.* Total number of items received that were deficient.
10. *Item description.* Provide item name and a brief description of the exhibit.
11. *Complaint narrative.* (Continue on back if necessary). Fill in any pertinent information that shall aid the shipper and the receiver of the exhibit with the disposition of the item. Include how the item is being shipped, such as, commercial or through the Army Supply System.
12. *Name (last, first, middle initial).* Last name, first name, then middle initial of the person completing this form.
13. *Telephone (include area code).* Phone number (commercial/DSN) of the person completing this form.
14. *Screening point and/or depot.* The activity that reviews the SF 368 for proper categorization, validity, correctness of entries, accuracy, and completion of information addresses.



15. *Date exhibit released.* Date the exhibit was released to the shippers.

16. *Exhibit released to.* Name, address, and phone number (DSN/Commercial) of the person and/or company that is shipping the exhibit.

### 3-6. SF 368

*a. Purpose.* SF 368 is a multiuse form for reporting Category I or II SF 368s. The preferred submission method is by electronic means through JDRS for AMCOM (B17) managed items and subcomponent DLA (SMS) managed items. The preferred method of submitting CECOM (B16) and subcomponent DLA (SMS) managed items and TACOM (AKZ) and subcomponent DLA (SMS) managed items is by electronic means through PDREP.

*b. Use.* This form is used to report quality deficiencies and make recommendations for improving equipment. The reporting of a failure or unsafe condition is important information. Therefore, preparation and submitting electronic or paper versions of the SF 368 shall not be delayed or withheld. Ensure the report is clear, complete, detailed and precise.

#### *c. General instructions.*

(1) Do not always rely on the Contractor and Government Entity Code (CAGE) codes listed in the parts manual; the actual manufacturer or repair activity may be different from the publication. Use data plates as the primary source for obtaining information to complete information blocks of the SF 368. You can also use shipping and packaging labels for identification of the manufacturing data. It is imperative to assure the information is as accurate and complete as possible to eliminate delays in processing.

(2) See Category I and II deficiency report preparation instructions for AMCOM/CECOM/TACOM managed items. Information on filling out deficiency reports for other Army surface equipment shall be found in DA Pam 750-8. Refer to Fed Log and tables 3-1 through 3-7 to determine the National Inventory Control Point (NICP) Item Manager of Army equipment.

(3) Prepare SF 368 to report the following conditions:

(a) The SF 368 deficiencies in new or almost new products.

(b) Poor quality workmanship in the manufacture, modification, or conversion process.

(c) Deficiencies related to design, manufacturing processes and incomplete inspection, maintenance and repair procedures.

(d) Failure or damage due to corrosion that occurred because of improper selection of finish, material, workmanship, or design.

(e) Recommendations for improvements to equipment or changes in procedures.

(f) A component and module or equipment that does not conform to the design or performance procurement specification regarding size, material, hardness, finish, or other aspects of the intended use.

(g) Reporting problems as requested by the NMP or other elements of AMCOM. When such requests are received at the unit level, the SF 368 is used to validate the extent and severity of the problem.

(4) Submit the following photos with all SF 368 submissions:

(a) Data plates, etchings and special markings on the item.

(b) Package labels and stickers that came with the item.

(c) Material Tags and documents that came with the item.

(d) Damage, if the damage can be seen.

(e) Downloads of any onboard monitoring systems (if monitoring the failed item).

(5) Prepare SF 368 when used to report initial failure of an item. The supply activity initially turning in the item shall enter the 'Turn-In Document Number' from DD Form 1348-1A, DD Form 1348-2 (Issue Release/Receipt Document), or DA Form 2765-1 (Request for Issue or Turn-In) in block 13b of the SF 368 before disposition is made.

(6) To keep from being charged a delta bill, supply personnel must submit a days delay period (DDP) clock suspension for all exchange pricing items. The clock suspension must be filed in accordance with DFAS-IN Regulation 37-1 and/or the Exchange Pricing Smart Book.

#### *d. Disposition.*

(1) The original SF 368 shall be sent directly to the RIC management screening point within 24 hours if a CAT I SF 368 and 3 days for CAT II SF 368s from the date deficiency was discovered.

(2) A copy shall be filed in the unit QC office.

(3) A copy shall be attached to the deficient part, component and module, or equipment everywhere the item goes, until an investigation is complete to assist in its identification as a SF 368 exhibit. This copy shall remain with the item until repair action is initiated at the sustainment facility (depot) level.

(4) Refer to local policies for other copies that may be required by your unit. Preparation instructions (by block number and title) for completion of a Category I or Category II SF 368 are listed below. Use only if JDRS or PDREP

is unavailable. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

### **3-7. DA Form 2408-13-3**

*a. Purpose.* DA Form 2408-13-3 (Aircraft Technical Inspection Worksheet) may be used to record—

(1) Faults and deficiencies found by QC technical inspectors during technical inspections of aircraft, UAS subsystems, aviation associated equipment, and components and modules.

(2) Faults and deficiencies on repair parts, components, and modules repaired during maintenance.

(3) Checks, services, scheduled or unscheduled maintenance inspections in MWOs, RSNs, SCPs, SOF messages, ASAMs, AMAMs, and/or TBs.

(4) Faults found during BDAR.

(5) Man-hours it takes to do maintenance and QC work, by military, civilian, and contract maintenance support personnel.

(6) The condition status symbols for aircraft, UAS, and aviation-mission related equipment aboard aircraft.

*b. Use.* The form may be used by aviation maintenance personnel, at all levels of maintenance, to record faults and deficiencies on aircraft, UAS subsystems, aviation associated equipment, and components and modules during technical inspections. It may be used by maintenance personnel during phase and/or periodic inspections and placed in the paper phase/periodic inspection checklist in place of the DA Form 2408-13-1 in a paper logbook. The form may be used by technical inspectors upon completion of scheduled and unscheduled maintenance inspections, maintenance services, and other technical inspections listed below.

(1) The technical inspections are normally completed by QC personnel during, but are not limited to:

(a) Acceptance of aircraft, UAS subsystem, aviation associated equipment, and components and modules into the unit and/or activity.

(b) Completion of a scheduled inspection, such as, phase, PPM, or periodic inspection by the maintenance crew.

(c) Completion of maintenance work needed for transfer of aircraft, or UAS subsystems from one organization to another, to a sustainment facility (depot)-level maintenance activity (organic or contract support), or to a FMS customer.

(d) When an aircraft, UA, or UAS subsystems is damaged by accident or mishap, combat, or natural phenomena (such as wind, rain, and water) to document faults needing repair.

(e) When an aircraft enters intermediate and depot level maintenance activities to determine deficiencies and extent of maintenance work needed.

(f) Completion of sustainment facility (depot) level maintenance repair, overhaul, rebuild of aircraft, UAS subsystems, aviation-associated equipment, and components and modules.

(g) During the in-process and final inspection of maintenance work such as, scheduled maintenance inspections, modifications, repair, and unscheduled maintenance.

(h) When a component, module, or repair part is work ordered to support maintenance for repair, this form will be used by the supporting unit to document in shop initial, in-process, and final inspection of the work performed. All faults or deficiencies discovered during the repair process will be entered on this form. Entries may be made by the mechanic, maintenance supervisor, or technical inspector.

(2) The DA Form 2408-13-3 shall not be used to record the following:

(a) Scheduled maintenance inspections and test flights at field level. They are recorded only on the DA Form 2408-13-1.

(b) Compliance with directives, such as, MWOs, RSNs, AMAMs, ASAMS, and/or SOF messages, or TBs except when the component and module is being repaired in an ASC/STB or higher-level maintenance shop. These directives shall be entered on DA Form 2408-13-1.

*c. General instructions.*

(1) All entries on a DA Form 2408-13-3 shall be entered into the LIS system.

(2) When DA Form 2408-13-3 is used to document in-shop component repair, the first DA Form 2408-13-3 used shall be page 1, a DA Form 2408-13-2 used to document related maintenance actions shall become page 2. The number of pages on the DA Form 2408-13-3 would then be 1 of 2. This shall show maintenance and QC personnel the number of pages of DA Form 2408-13-3 which should be in the package. When you use more than one DA Form 2408-13-3, blocks 1 through 4 shall be filled in on each form.

(3) When this form is added to a paper logbook flight pack, enter the flight pack page number on the line after "page." Leave the line after "of" blank.

(4) Both sides of the form may be used to record faults and deficiencies. Using both sides of the form shall reduce the number of forms needed and save paper.

(5) Once a status symbol or initial is entered in the STATUS block, it shall not be erased or changed even if entered in error (see para 1-8). Instructions to clear status symbols on this form shall be the same as written in paragraph 1-9.

(6) Make hand printed entries in black lead pencil or pen. The commander or designated representatives may use ballpoint pen with black ink to clear X or circled X entries.

(7) The person who finds a fault or deficiency shall make an entry on the first open line in the Fault Information Block and enter the proper status symbol in the Status Block. They shall change the status symbol in the System Status Block on the DA Form 2408-13, when it applies.

(8) When related maintenance actions are needed to correct a fault, initiate a DA Form 2408-13-2.

(9) Use as many Fault Information Blocks, as necessary to enter faults, deficiencies, and remarks with no more than one fault or remark per block. If more space is needed to enter a fault or remark in a Fault Information Block then enter "continued" or "cont." on the last line of the Fault/Remarks Section and continue the fault or remark in the next open Fault Information Block. If the fault or remark shall not fit in the last Fault Information Block enter "continued" or "Cont." on the last line of the Fault/Remarks Section and continue the fault or remark in the first open Fault Information Block on the backside of the form or start a new DA Form 2408-13-3.

(10) The system code is a requirement and must be used by units, and may be used by other units if they so desire. System codes can be found on the table 1-9.

(11) When a fault, deficiency, condition, or incorrect entry is corrected, and components and modules or other repair parts are removed and reinstalled or replaced, the person making the corrective action shall enter the action taken in the Correcting Information Block that follows the fault write-up, condition, and incorrect entry, in the Fault Information Block. Corrective action taken using words or phrases, such as, "applied," "tested," "installed," "serviced," "replaced," "repaired," "adjusted," or "erroneous entry" with other brief information (authorized abbreviations are OK) about the action, shall be enough to describe the corrective action. If you use one or more words to describe action taken, it shall not be considered in error. Do not use the word "corrected."

(12) When an ASC or Sustainment facility (depot) component repair shop applies a SOF message, ASAM, AMAM, TB, or MWO, and/or RSN to an uninstalled component, module, or repair part, it shall be entered in the Fault Information Block and the action taken in the Correcting Information Block. The DA Form 2408-5-1 or DD Form 1574 for the item shall be annotated when the SOF, ASAM, AMAM, or TB is completed.

(13) Upon completion of the corrective action, the person making the corrective action shall enter their AKO user name in the PID block. Manual record keepers may enter their AKO user name at the end on the Action taken block since the PID block is so small. The person who corrects a dash (-) or diagonal (/) fault shall enter their last name initial over the status symbol. To clear an X or circled X symbol, the commander or their designated representative per paragraph 1-9 must inspect the completed action. An inspectors stamp may be used. The inspector shall enter their AKO user name in the TIPID block, place their last name initial over the status symbol in the Fault Information Block, and change the status symbol in the System Status Block on the DA Form 2408-13, if it applies. If more than one technical inspector performed technical inspections to complete the fault correction, the senior technical inspector performing the inspection shall enter their AKO user name in the TIPID block. If a DA Form 2408-13-2 was used, all personnel completing actions on the DA Form 2408-13-2 shall enter their AKO user name or their first names, initials and last names on DA Form 2408-13-3. When a scheduled inspection, such as a phase, periodic, or PPM is completed, do not reenter the names from the maintenance checklist. The maintenance supervisor shall enter their AKO user name or their first name, initial and last name certifying completion of the inspection and initial the status symbol. When more than one person completes the corrective action for a fault, other than a phase, periodic or PPM inspection, the senior mechanic, who performed part of the corrective action, shall initial the status symbol for entries with a diagonal or dash status.

(14) Maintenance man-hours consist of direct "hands-on" man-hours. This time does not include the time expended chasing parts or tools, but does include time expended filling out forms and records. All personnel completing related maintenance actions on a DA Form 2408-13-2 shall enter their expended man-hours. When extensive maintenance is performed, such as an engine replacement, and there is not enough man-hour blocks available for all the mechanics to enter their man-hours, the maintenance supervisor shall consolidate the man-hours by category and use their AKO user name or their first name, initial, and last name to enter the man-hours.

(15) When corrective action is taken by an activity other than the parent unit or support activity, the person(s) taking the action shall enter their unit or activity in the Correcting Information Block. Qualified designated representatives may also certify work performed or do one-time inspections on aircraft, or UAS subsystems that belong to another unit; they shall enter their unit or activity in the Correcting Information Block.

(16) For the entries on the DA Form 2408-13-3 that require other entries on historical forms and records (see chap 2 ) in this pamphlet , such as, replacement of reportable items, SOF messages, ASAMs, AMAMs, TBs, MWOs, AWRs, and/or RSNs, special inspections, services, it becomes the responsibility of the technical inspector that inspected the corrective action to make these entries. When a component and module or repair part with a serial number is replaced the serial number of the removed item shall be entered in the Fault Information Block and the serial number of the replacement item shall be entered in the Correcting Information Block.

*d. Disposition.*

(1) DA Forms 2408-13-3 filled out during scheduled or unscheduled maintenance inspections, and any related historical or maintenance forms (see chaps 3-5) filled out by technical inspectors during inspection of aircraft, UA,

UAS subsystems and aviation associated equipment shall be attached to the proper or corresponding DA Form 2408-13-1 and placed in the 6-month flying file (manual records). When a DA Form 2408-13-3 is added to a paper flight pack, dispose of these forms per paragraph 2-9d(2).

(2) When DA Form 2408-13-3 is used to document aircraft in-shop component or module repair at the Field or sustainment facility (depot) level maintenance, the completed form shall be filed in the Quality Control Office for 6 months after the repair is completed.

(3) When DA Form 2408-13-3 is used to document UA or UAS subsystems, the completed form shall be kept in the unit's designated office. Preparation instructions (by block and title) for DA Form 2408-13-3 are listed below. The use of "If req" or "-" on the sample forms indicates that no information was required for that block and page \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number of pages.

1. *Organization.* The name of the organization doing the inspection, repair, or maintenance.

2. *Model.* The item name and MDS. When this form is used to document in-shop component repair, enter the component/module, or repair part nomenclature from DA Form 2407, block 9.

3. *Serial number.* The serial number of the item being inspected or repaired. If it is an aircraft use seven numerical characters. When this form is used to document in-shop component repair, enter the component and/or module, or repair part serial number from DA Form 2407, block 11.

4. *Type information.* The type of inspection being performed. When this form is used to document in-shop component repair, enter "Repair."

*Part I—Fault Information.*

*Status.* When the person, performing the technical inspection, finds a fault or condition affecting the operation or flight of the aircraft, UA, UAS subsystems, training device and/or simulator, or mission related equipment aboard the aircraft or UA, they shall record it in the Fault Information Block. Then enter the proper status symbol in this block. Once a status symbol is in the Status Block, it shall not be erased or changed even if in error (see para 1-9). The person who corrects a dash "-" or diagonal "/" fault shall enter their last name initial over the status symbol. A "X" or circled "X" status symbol shall be initialed over by a qualified designated representative appointed by the unit and/or activity commander.

*Sys.* The system code that shows which system the fault is related to (see table 1-9).

*Date.* The date a fault is discovered, a remark is made, or an inspection is entered.

*No.* Number of the fault, leave blank.

*Time.* The time (24-hour clock) the fault was discovered.

*PID.* The person making the entry shall enter their AKO user name or their first name, initial, and last name.

*Fault/Remarks.* Enter remarks, faults, or deficiencies. Use as much space as needed to describe the fault or deficiency.

*ACFT hrs.* The current aircraft or UAS flying hours, or the UAS subsystems operating hours at the time the fault was discovered. Get the current aircraft flying hours from the DA Form 2408-13. For ASC or sustainment facility (depot) in-shop component repair, leave blank.

*When disc.* Enter the appropriate when discovered code, for faults and discrepancies, from table 1-6. Leave blank when a remark is in the Fault Information Block.

*How rec.* Enter the appropriate how recognized code, for faults and discrepancies, from table 1-7. Leave blank when a remark is in the Fault Information Block.

*MAL eff.* Enter the appropriate malfunction effect code, for faults and discrepancies, from table 1-8. Leave blank when a remark is in the Fault Information Block.

*Delay.* Enter the work order number, of the work request, to fix the fault or condition. Enter the supply requisition number for a repair part that is required to repair the fault. Enter "DA Form 2408-13-2" when a DA Form 2408-13-2 is needed to list related maintenance actions for clearing the fault or deficiencies. If none, leave blank.

*Part II—Correcting information.*

*Date.* The date of the corrective action.

*Time.* The time of day (24-hour clock) the corrective action was done.

*ACFT hrs.* The actual aircraft, UA, or UAS subsystems hours when the corrective action was completed. For ASC or sustainment facility (depot) in-shop component repair, leave blank.

*Rounds.* For armament system faults, discrepancies, and inspections, for which a DA Form 2408-4-1 is maintained, enter the cumulative rounds fired from DA Form 2408-4-1, block 5e.

*Action code.* Enter the maintenance action code from table 1-11 which best describes the action taken.

*Work unit code.* Enter the WUC that best describes which component and/or module or part the corrective action pertains to. If a WUC has not been established for the component and/or module, part or area, enter the functional group code from table 1-12 that best fits corrective action. The corrective action WUC may be different from the WUC in the Fault Information Block.

*Action.* Enter an abbreviated explanation of the action taken, for example, "replaced rotor blade." The words "replaced," "repaired," "adjusted," or "erroneous entry," with other brief information about the action, shall be enough to describe the action taken. Do not use the word "corrected."

*PID.* The AKO user name of the person(s) accomplishing all or part of the maintenance action (if not enough room enter the name at the end of the Action Block).

*CAT.* Enter the category of maintenance for the action taken: “F” for field level, or “D” for sustainment facility (depot) level.

*Hrs.* Enter the direct “hands on” man-hours, in hours and tenths, expended during actual maintenance.

*TIPID.* The AKO user name of the technical inspector who inspected the maintenance action.

*TI manhours.* The technical inspector shall enter the manhours, in hours and tenths, that it took to inspect the action taken and to complete all necessary forms and records (see chap 2).

### **3–8. DA Form 2405**

*a. Purpose.* DA Form 2405 (Maintenance Request Register) will provide a record of all job and work orders (DA Form 2407) started at the field level, processed to ASC or sustainment facility (depot) for work. LIS maintains a record of all work orders and can generate reports of open and/or closed work orders. Non LIS units may use a hard copy.

*b. Use.*

(1) At field as a record of maintenance requests started and turned into ASC or sustainment facility (depot) maintenance (organic or contract support).

(2) As a support maintenance management record, for incoming, ongoing, and completed job and work orders.

(3) Units requesting support maintenance from a support activity operating under SAMS shall maintain a register.

(4) SAMS–1 automates the DA Form 2405 at the ASC level. It is used as a consolidated record of all DA Forms 2407 received. The automated form provides a consolidated list of all open work orders, man-hours, and work order status.

(5) Units served by a SAMS maintenance activity may use the manually prepared DA Form 2405 when assigning the ORG WON to the DA Form 2407 for tracking work orders reflecting NMC conditions for equipment. Routine maintenance requests (DA Form 2407) sent to ASC may also be recorded on the DA Form 2405.

(6) As a source for information such as backlog status reports.

(7) Units under a LIS shall utilize the LIS program to track work orders.

*c. Special instructions.* Logistics Information Systems that are used to record job and work orders must contain the following data elements (Based on DA Form 2405).

(1) Job order number (Work Order Number from DA Form 2407).

(2) Nomenclature and quantity.

(3) Work requested by.

(4) Serial or USA Registration Number.

(5) Brief description of work or remarks.

(6) Date job order received.

(7) Date repaired.

(a) Started.

(b) Finished.

(8) Man-hours.

(9) Cost.

(a) Labor.

(b) Parts.

(10) Total cost of job.

*d. Disposition.*

(1) Register is kept for 6 months after all job and work orders are completed, and then destroy.

(2) When used for local budgeting purposes, keep until the budget is complete, and then destroy.

(3) You may choose to move open work orders to a new register if your unit closes out the register at the end of a calendar or a FY.

### **3–9. DA Form 2407**

*a. Purpose.* DA Form 2407 serves as a request for maintenance support and gives valuable information from all levels of maintenance. This form is the source of information for the MWO and/or RSN Program and the Logistics Integrated Warehouse (LIW) at Redstone Arsenal, AL. The LIW database provides aircraft, UAS subsystems and weapon system logistic data, such as mean time to repair, mean time between repairs or failure, mean days or hours NMC for ASC maintenance, and repair parts usage at ASC for aircraft, UAS subsystems, and selected major components and modules. Submit the maintenance request data to LOGSA through the LIS system.

*b. Use.* Form is used—

(1) At the field unit to—

(a) Request support maintenance, to include the following:

1. Repairs beyond the field unit’s prescribed ability or capacity.

2. Application of MWOs/RSNs and SOF messages/ASAMs/AMAMS/TBs while in the ASC activity.
  3. Fabrication and/or assembly of items.
  4. ASC and/or ST- level work performed within a field unit when the unit has an integrated ASC capability.
    - (b) Ask for repair of components and modules, assemblies, and subassemblies in the RX program.
    - (c) Ask for maintenance support from another activity or supporting unit.
    - (d) Report battle damage repair actions. AR 750-1 and the specific aircraft or UAS battle damage repair TM governs when and how such repairs shall be done.
    - (e) Request status feeder data on component(s) and module(s) repair causing aircraft, UA, or UAS subsystems NMC and/or partial mission capable (PMC) condition when it applies.
    - (f) Tracking of serial number items within SAMs.
      - (2) At ASC activities to—
        - (a) Request maintenance work to repair or apply MWOs and/or RSNs to aircraft, UA, UAS ground- control equipment, components and modules, and aviation associated equipment in the categories below:
          1. Operational readiness float items.
          2. Reparable exchange items.
          3. Assigned organic aircraft, UA, UAS subsystems, and mission related equipment.
        - (b) Record all work done and repair parts used, except common hardware and bulk materiel.
        - (c) Report MWOs and/or RSNs, ASAM, AMAMS, SOF messages, and TBs applied and/or any one-time inspections completed.
        - (d) Report “repair and return to user” work done.
      - (3) At sustainment facility (depot) level (organic or contract support) to—
        - (a) Request maintenance work to apply MWOs and/or RSNs and/or repair to aircraft, UA, UAS subsystems, components, and modules, and aviation associated equipment in the categories listed below:
          1. Assigned organic aircraft and aviation associated equipment.
          2. X items or “repair and return to user” maintenance services.
        - (b) Report MWOs and/or RSNs, ASAM, AMAMS, and/or SOF messages, and TBs applied and/or one-time inspections completed.
        - (c) Report “repair and return to user” work done and repair parts used, except common hardware and bulk material.
- Note.* Sustainment facility (depot) maintenance activities may have an automated system or current LIS system to record repair parts or consumables the repair parts used during “Repair and Return to User” still needs to be recorded on the DA Form 2407/DA Form 2407-1. These data are required for the LIDB Maintenance Module at LOGSA.
- (4) To record intermediate support and sustainment facility (depot) level maintenance work done under contract maintenance support.
  - (5) To report MWOs and/or RSNs that were applied in the past, but were not recorded on historical records or reported as applied.
- c. General instructions.*
- (1) The supporting maintenance activity doing the work shall check Section I entries for accuracy. Remarks, Block 25, shall be used to indicate and clarify nonreceipt of items in Section I, action on the status of equipment, and any information pertinent to the equipment.
  - (2) Send all maintenance and historical forms (see chaps 3-5) that apply to the aircraft, UA, UAS subsystems, reportable components and/or modules, and aviation associated equipment installed in the aircraft, UA, or UAS subsystems to ASC or sustainment facility (depot) maintenance support activity. Make an entry in Technical Reference, Block 26 listing these forms.
  - (3) A separate DA Form 2407 is used to request maintenance support on end item aircraft, UA, UAS subsystems, reportable components and/or modules, or aviation-associated equipment. You may combine nonreportable items that have the same NSN on a single DA Form 2407. DA Form 2407-1 is used when more room is needed for entries.
  - (4) The field unit, asking for maintenance support, fills out Sections I and III and sends all copies of the form with the aircraft, UA, UAS subsystems, component and/or module, or aviation-associated equipment to the ASC activity.
  - (5) The ASC activity fills in Blocks 35a through 35d and if needed, puts a local work order number on the form. Copy 1 then goes back to the field unit as a receipt for the equipment. The field unit returns Copy 1 when the equipment is repaired and ready for pickup.
  - (6) If repair parts needed for maintenance are not available when a maintenance request is made, the ASC activity may defer the maintenance by printing in Remarks, Block 25, “Maintenance request received on (date)” or “owner to return item on (date) for repair” or “owner shall be notified upon receipt of part.” Copies 2 through 5 of the maintenance requests shall be returned to the unit requesting the maintenance. Copy 1 shall be retained by the ASC activity until the item is returned for repair.

*Note.* NMCM cannot be deferred. Any time spent awaiting parts at ASC support shall be NMCS.

- (7) When used to request or report the application of a MWO and/or RSN the following applies:

(a) Army aviation units and activities that are supported by AMCOMs Field Support Readiness Directorate (FSRD) contract field team MWO and/or RSN application facility, shall not prepare DA Forms 2407/DA Form 2407-1 to apply a normal MWO. AMCOM MWO and/or RSN maintenance personnel through the MWO materiel fielding plan (MFP) shall contact all unit and intermediate maintenance activities each year to schedule application of MWOs and/or RSNs. (Supporting contract field team (FSRD) address and geographical support areas are shown in table 3-9.)

(b) An AMCOM MWO representative shall oversee each application of a MWO/RSN applied by a contract field team. The MWO representative shall verify the MWO/RSN application per AR 750-1 and shall sign their name in Inspected By, Block 37a. In case the MWO representative is absent from work, the person replacing the MWO representative shall monitor, verify, and sign.

(c) Deficiencies and faults found by the contract field team during application of a MWO and/or RSN, shall be entered on the aircraft, UA, or UAS subsystems DA Form 2408-13-1 per paragraph 2-11. The deficiencies and faults that affect flight safety (grounding faults) shall be corrected and cleared. The AMCOM MWO representative and owning unit or facility shall discuss and approve of other needed maintenance work on the aircraft, UA, or UAS subsystems being modified. When needed, the person finding faults or conditions that call for submission of Category I or II SF 368s shall prepare a SF Form 368 per paragraph 3-6.

(d) The person, normally a QC technical inspector that represents the unit owning the aircraft, UA, or UAS subsystems being modified shall assure that the application of the MWO/RSN and the maintenance done is satisfactory per contents of the MWO and/or RSN, MFP, and the publication in the TM 23 series that applies. The person inspecting the MWO and/or RSN application and other maintenance done shall verify this by signing Picked Up By, Block 38a.

(8) An ORG WON is assigned sequentially from DA Form 2405 (see para 3-9) and shall be assigned for the following:

(a) To track ASC maintenance work done and NMCM time on aircraft, UA, UAS subsystems, components, and modules and other equipment in SAMS units.

(b) When reportable equipment is listed in AR 700-138, or when a command maintenance significant item designated by the local commander, becomes NMC. Also, assign an ORG WON when a nonreportable subsystem of a reportable system causes the system to become NMC.

(c) An ORG WON must be assigned for all NMC equipment, even if it is immediately evacuated to ASC without any maintenance performed at the unit. This is automatically accomplished for units utilizing a LIS system.

(9) The 12-position ORG WON will consist of the following:

(a) The first five positions shall be the UIC minus the W. A unit with a UIC of WFJ5C0 would use FJ5C0 as the first five positions of each ORG WON. The letters "I" and "O" are not permitted in the UIC.

(b) The sixth position shall have a "2" or "3," depending on whether the equipment is NMC reportable or not. A "2" is used whenever the reportable equipment is listed in AR 700-138 or when a command maintenance significant item, selected by the local commander, becomes NMC. Also, assign a "2" when a nonreportable subsystem of a reportable system causes the system to be NMC. A "3" is used if the item is not NMC reportable.

(c) The seventh position shall be the year of the decade. For example, the seventh position for each Org Won assigned in 2007 would be 7.

(d) The last five positions are the sequence number and are unique to each work order. The sequence number is assigned at the unit production control office on DA Form 2405.

d. *Special instructions.* When an MWO and/or RSN is issued for any aircraft, UA, UAS ground- control equipment, associated equipment, and/or component and module to be applied by a field unit or AMCOM contract field team (OLR team) the following instructions apply:

(1) A unit not under AMCOM FSRD contract field team MWO/RSN application program and needing a MWO and/or RSN applied shall send all copies of the DA Form 2407/DA Form 2407-1 to the activity that shall apply the MWO and/or RSN. The aircraft, UA, UAS subsystems, associated equipment, or component and module normally does not go to the applying activity until MWO/RSN kits are on hand. If MWO and/or RSN kit(s) are already on hand, the equipment to be modified shall go with the DA Form 2407/DA Form 2407-1.

(2) If the MWO/RSN kits are not available, send all copies of the DA Form 2407/DA Form 2407-1 to the activity applying the MWO/RSN, but do not send the aviation equipment, UA, or UAS subsystems. The applying activity shall enter in block 25, REMARKS, "Receipt of MWO/RSN Request (Date, Name or Initials)" and return Copies 2 through 5 to the requesting unit. The applying activity shall keep Copy 1.

(3) When the MWO/RSN kits are received the applying activity shall notify the unit, requesting MWO/RSN application, to send the aviation equipment, UA, or UAS subsystems and all copies of the DA Forms 2407/DA Form 2407-1.

(4) The person of the activity applying the MWO/RSN, who receives the equipment, shall enter their first initial and last name in block 35a, ACCEPTED BY, for receipt of the equipment to be modified. The applying activity shall then return Copy 1 to the unit that requested the MWO/RSN application and shall keep Copies 2 through 5.

e. *Disposition.* Units using the manual record keeping system and SAMS units not using the automated DA Form 2407.

- (1) RECEIPT COPY 1. Destroy when the aircraft, UA, UAS subsystems, component and module, or aviation-associated equipment is returned to the owning unit.
- (2) NMP COPY 2.
- (a) Normal maintenance requests—handle as directed by the local command.
- (b) Kept by the contract field team for reporting the MWO/RSN application to AMCOM per MWO MFP.
- (3) CONTROL COPY 3.
- (a) For normal maintenance requests and MWO application by the AMCOM contract field team, handle as directed by the local command.
- (b) MWO/RSN application by field unit/activity personnel, this copy shall be sent to the address shown in the MWO MFP. If a MFP has not been processed and approved, this copy shall be disposed of using local command instructions.
- (4) ORGANIZATION COPY 4.
- (a) The field unit that asked for the maintenance support keeps this copy for 180 days after the action is completed, and then destroys it.
- (b) Field units may keep DA Forms 2407 that show services (such as, calibration and load/proof test, and so forth) until the next service is done.
- (c) MWO/RSN application by field unit/activity personnel shall send this copy to the owning unit of the aviation equipment. The owning unit shall retain copy 4 until the DA Form 2408-5 or DA Form 2408-5-1 has been posted, and then destroys it.
- (5) FILE COPY 5.
- (a) The ASC activity or installation maintenance activity keeps this copy for 180 days after the repair is completed, and then destroys it.
- (b) Installation tables of distribution and allowances (TDA) maintenance activities that are subject to efficiency reviews shall keep file copies for 1 year.
- (c) MWO/RSN application by the AMCOM contract field team may be disposed of locally, as desired.
- (d) LIS users. The LIS program defaults to two hard copies of the maintenance request. You can print less or more copies, as needed.
1. COPY 1. Signed by the support unit and returned as a receipt. Destroyed when the equipment is returned to the unit.
2. COPY 2. Retained by the support unit.
- f. Preparation instructions (by block and title) for completion of a DA Form 2407 to request support maintenance are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.
- PAGE NO. Enter the page number. "1" if this is the first page. For SAMS Units, blocks 1, 5, 6, 7, 10a, 11, 12, 13, 15, 16, and 24 are mandatory if equipment is inoperable. Inoperable equipment is equipment that is NMC, according to AR 700-138, a subsystem of a reportable weapon system, or a command maintenance significant item.
- NO OF PAGES. Leave this block blank.
- SECTION I--CUSTOMER DATA
- 1a. UIC CUSTOMER. The UIC of the unit/organization that owns the aircraft, UA, UAS ground control equipment, component/module or equipment.
- 1b. CUSTOMER UNIT NAME. The name of the unit in 1a.
- 1c. PHONE NO. The phone number (DSN/Commercial) of the unit in 1a.
- 2a. SAMS-2 UIC/SAMS-1/TDA. If in transit enter the owning unit's UIC. Units not using SAMS, leave blank.
- 2b. UTILIZATION CODE. The appropriate Utilization Code from table 1-11.
- 2c. MCSR. Print the word "YES" or the letter "Y" if the item is reported under AR 700-138. This also applies to components and subsystems of an item or system that is reportable. Leave blank if not reportable under AR 700-138.
- SECTION II--MAINTENANCE ACTIVITY DATA.
5. TYPE MNT REQ. The appropriate Type Maintenance Request Code from table 1-18. Units not using SAMS leave blank. To be completed by support maintenance or depot.
6. ID. The Identification Code that identifies the type of number you will enter in block 7-- A=National/NATO Stock Number. C=Manufacture's Code and Reference Number (Part Number). D=Management Control Number (MCN). P=Other (Dummy) Numbers
7. NSN. The NSN or appropriate number identified in block 6.
8. MODEL. The Mission Design Series of the equipment needing support maintenance.
9. NOUN. The name of the item requiring support maintenance.
- 10a. ORG WON/DOC NO. The organization work order number or organization document number. For assignment of ORG WON for SAMS units, see paragraph 3-11. Units not using the SAMS system may assign a local WON. The local WON will be composed of 12 digits. The first six characters will be the owning unit or activity UIC, followed by the two-digit year, and a four-digit number for number of DA Forms 2407 submitted in numerical order.
- 10b. EIC. The End Item Code that applies to the equipment, see table D-1.
11. SERIAL NUMBER. The Serial Number of the item in block 9. If the form is used for more than one item, leave



blank.

12. QTY. The number of items. Only one item will be listed if equipment is reportable under AR 700-138 and is NMC.

13. PD. The Priority Designator, see DA Pam 710-2-1.

14. MALFUNCTION DESCRIPTION (for DSU, GSU/AVIM, DEPOT use). To be used by ASCASC/STB and Depot.

15a. FAILURE DETECTED DURING/WHEN DISCOVERED CODE. The appropriate When Discovered Code from table 1-6.

15b. FIRST INDICATION OF TROUBLE/HOW RECOGNIZED CODE. The appropriate How Recognized Code from table 1-7.

16. MILES/KILOMETERS/HOURS/ROUNDS.

Miles -- Leave blank.

Kilometers -- Leave blank.

Hours -- For aircraft enter the aircraft hours, for UA or UAS ground control equipment enter the operating hours from the current DA Form 2408-13. For components/modules and assemblies, enter the time since new as calculated from the DA Form 2408-16, or total cumulative operating hours calculated from DA Form 2408-16-1. If the item in block 9 is not an aircraft, UA or UAS ground control equipment or is not listed in TB 1-1500-341-01, leave blank.

Rounds -- If a weapon system or weapon system subcomponent is entered in block 9, enter the total cumulative number of rounds fired. Get this information from the DA Form 2408-4-1 for the weapon system. If the weapon system does not have a DA Form 2408-4-1, leave blank. Leave blank when it does not apply.

17. PROJECT CODE. SAMS Units enter the assigned Project Code. If none is assigned, leave blank. Units not using SAMS may leave blank.

18. ACCOUNT PROCESSING CODE. The Account Processing Code (APC) if required by your unit, otherwise leave blank. The APC is a code prescribed locally for costing and budget identification of customers and organizations (reference TM 38-711-13-P2(TEST))

19. IN WARRANTY? Enter "Y" or "N" to indicate whether equipment is still under manufacturer's warranty. If "Y," submit one work request for each serial numbered item. Leave blank if unknown.

20. ADMIN NUMBER. For aircraft and aviation components/modules, leave blank.

21. REIMBURSABLE CUSTOMER. For ASC ASC/STB and Depot use.

22. LEVEL OF WORK. The code for the maintenance level of the activity doing the work -- F -- Field Maintenance (AMC and ASC). D -- Depot. K -- Contractor. L -- Special Repair Activity.

23. SIGNATURE. The commander or their designated representative will sign for all priority 01 through 10 requests. This signature approves the use of the PD.

24. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURES IN EQUIPMENT TM (Do not prescribe repairs).

a. Briefly describe the fault or failure and give symptoms. When possible, use information from DA Form 2408-13-1, DA Form 2408-13-2, DA Form 2408-13-3, or DA Form 2408-14-1. Do not ask for general or specific repairs, or for parts to be replaced. For example, do not tell support to "Replace the engine" or "Repair as needed."

b. When the form is asking for work on more than one item with the same NSN, list the number of items and their serial numbers (if they have serial numbers). Equipment, components/modules, or subsystems of reportable equipment, or command maintenance significant equipment reported on the Material Condition Status Report (see AR 220-1 and AR 700-138) must have its own separate DA Form 2407.

c. When the form is requesting standard repair after a battle-damage expedient has been applied, print "BDAR" in bold letters before describing the fault or symptoms.

d. If you need more room, use a DA Form 2407-1.

25. REMARKS. Enter any remarks that may assist the ASC or Depot in repair of the item.

a. When the form is prepared for components/modules or assemblies with a recoverability code of A, D, F, H, or L, list the end item NSN on the last line. The recoverability codes can be found in the RC Code column of the AMDF and as part of the item's Source, Maintenance, and Recoverability (SMR) code in the parts manual.

b. Indicate any historical forms sent with the component/module or aircraft (see chaps 4 and 5).

34a. SUBMITTED BY. First name initial and last name of the person preparing the form.

34b. DATE. The date the form was given to support.

35a. ACCEPTED BY. First name initial and last name of the person accepting the work request.

35b. STATUS. The person accepting the request will enter the work request status code. Table 1-17 lists these codes.

35c. DATE. The date the request is accepted.

35d. TIME. The military time the request is accepted.

g. Preparation instructions (by block and title) for DA Form 2407 to request application of an MWO/RSN are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

PAGE NO. Already filled in by the unit requesting the support maintenance.

NO OF PAGES. The total number of pages required to complete the maintenance actions.

REQUIREMENT CONTROL SYMBOL CSGLD-1047(R1). Leave blank.

SECTION I--CUSTOMER DATA. Already filled in by the unit requesting the support maintenance.

SECTION II--MAINTENANCE ACTIVITY DATA.

3a. WORK ORDER NUMBER (WON). Units under the SAMS system shall enter the WON assigned by the support unit. Units not using the SAMS system may assign a local WON (see para 3-11c).

3b. SHOP. The shop section code assigned to identify a particular maintenance shop. Each maintenance battalion operating under the SAMS system locally assigns Codes A through Z. Example: A=Avionics Shop, B=Battery Shop, E=Engine Shop, and so on. Units not using the SAMS system may leave blank.

3c. PHONE NO. The phone number (DSN/commercial) of the maintenance activity doing the work.

4a. UIC SUPPORT UNIT. The Unit Identification Code of the maintenance activity.

4b. SUPPORT UNIT NAME. The unit name of the maintenance activity.

SECTION III--EQUIPMENT DATA. 5 THROUGH 13. Already filled in by the unit requesting the support maintenance.

14. MALFUNCTION DESCRIPTION (for DSU, GSU/AVIM, DEPOT use). A short description of the problem (16 position entry).

15 THROUGH 20. Already filled in by the unit requesting the support maintenance.

21. REIMBURSABLE CUSTOMER (if Transit customer enter Y or N). Enter "Y" if the customer must pay the maintenance cost.

22 THROUGH 24. Already filled in by the unit requesting the support maintenance.

25. REMARKS.

a. When the item in block 7 needs on site or deferred maintenance, the ASC/STB or Sustainment facility (depot) activity shall enter one of the following statements:

(1) Maintenance Request received on (date), on-site maintenance scheduled for (date), signature of Production Control NCO.

(2) Maintenance Request received on (date) deferred, owner to return item on (date) for repair. Print "ORF" when an Operational Readiness Float was issued or would have been issued if a serviceable ORF asset was available.

b. For aviation night vision goggles, the ASC unit shall enter the new intensifier tube serial numbers whenever maintenance is performed to replace the tubes. The Receipt Copy 1 shall be retained at the ASC/STB or sustainment facility (depot) activity. The owning unit keeps all other copies until the on site repair is started or the deferred item is taken back to support.

26. *Technical references.* The reference TM or technical publication as needed. Enter a statement of the PMC condition when it applies.

Section IV—Task Requirements Data.

27a. FILE INPUT ACT CD. Units using the LIS system enter the File Input Action Code. For example, A=Addition of a new record file, C=Correction to the file records, D=Deletion of the record from the file. Units not using the LIS system may leave blank. This section of the work order can be used in various ways by the support maintenance activity: one task repair action for the work order, one task for each center/shop section that is to work on the equipment, or a task for each repair action necessary can be recorded. The general rule for task management is to allow the capturing of man-hours expended on equipment. The task sequence number is not to be confused with work request status code changes.

27b. TASK NO. The Task Number. Units not using the LIS system may leave blank. How to use this field is up to the support maintenance activity of units using the LIS system. At least one character (letter or number) must be used and task numbers must be different for each task listed. Some of the various ways this field can be used are as follows:

a. A single task for all work needed to be done (for example, task number 1).

b. A task for each work center/shop section for work to be accomplished at each work center/shop section. The task number can be the shop section code.

c. A task for each action specified to be done by inspectors. The task number can then be the character for the shop followed by a different number for each task. For example, tasks A1, A2, and A3 may be used for the Avionics Shop and tasks S1 and S2 for the Sheet metal Shop, and so on.

27c. ACT CODE. The appropriate Action Code from table 1-11.

27d. TASK DESCRIPTION. Brief description of task to be accomplished.

27e. QTY TO BE RPR. Number of items to be repaired

27f. WORK CENTER. The Work Center Code of the shop that shall do the task (see Unit SOP).

27g. *Failure code.* The appropriate failure code from tables 1-2 and 1-3.

27h. MH PROJ. The number of man-hours projected to accomplish the task.

27i. *MH EXP.* The number of man-hours actually expended to accomplish the task.

Section V—Part Requirements.

28a. *File input act CD.* The File Input Action Code, same as 27a.

28b. TASK NO. The Task Number that generated the parts requirement.

28c. ID NO. The Identifying Number that identifies the type of information in the NSN field. A=National Stock Number. C=Manufacturer's Code and Reference Number. D=Management Control Number. P=Other (Dummy) Num-

bers.

28d. NSN OR PART NUMBER. The National Stock Number, Manufacturer's Part Number, or other number, as identified in block 28c for the required part.

28e. SFX CD. Units not using the LIS system may leave blank. Units using the LIS system shall enter the suffix identification code when applicable. This code allows the operator to use the same record key (that is, WOG, Task Number, Identification Code, and NSN), when adding the same NSN to a file. It enables the operator to bypass edits that normally would reject as being duplicates. Each new entry should be in sequential order. Blank, A-Z, 0-9 are the allowed entries.

28f. QTY RQD. The quantity of part(s) needed.

28g. QTY ISSUED. The quantity of part(s) issued to the mechanic.

28h. NMCS CD. If failure to get a part shall cause the item to become NMCS, enter "Y." If item shall not become NMCS, enter "N."

28i. FAILURE CODE. The Failure Code from tables 1-2 and 1-3 that best describes why the item failed.

28j. STORAGE LOCATION. Units not using the SAMS system may leave blank. Units using the SAMS system shall enter the storage location code, if it is an SSL item (see unit SOP).

28k. INITIALS. Units not using the LIS system may leave blank. Units using the LIS system shall enter the initials of the SSL clerk releasing the part to the mechanic.

28m. TOTAL MAN-HOURS. Add the Man-hours Expended in block 27i, on all pages of DA Forms 2407 and DA Form 2407-1, to get the total man-hours.

28n. TOTAL MAN-HOURS COSTS \$. Multiply block 28m, Total Man-hours, by the current local labor rate for total man-hour costs. Units not using the SAMS system may leave blank.

28o. TOTAL PARTS COSTS \$. Add the parts cost in block 28l, on all pages of DA Forms 2407 and DA Form 2407-1, to get the total parts costs. Units not using the SAMS system may leave blank.

#### *Section VI—Completion Data.*

29. QTY RPR. The number of items repaired.

30. QTY CONDEMN. The number of items condemned.

31. QTY NRTS. The number of items not reparable at this activity.

32. EVAC WON. The WON assigned by the receiving maintenance unit if the item is evacuated.

33. EVAC UNIT NAME. The name of the unit to which the item is evacuated.

#### **SECTION VII--ACTION SIGNATURES.**

34a and 34b. Already filled in.

35a. ACCEPTED BY. The first name initial and last name of the person accepting the work request.

35b. STATUS. The appropriate work request status code from table 1-19.

35c. DATE. The date that the work order was accepted.

35d. TIME. The military time that the work order was accepted.

36a. WORK STARTED BY. The first name initial and last name of the person starting the work.

36b. STATUS. The appropriate work request status code from table 1-19.

36c. DATE. The date the work was started.

36d. TIME. The military time the work was started.

37a. INSPECTED BY. The first name initial and last name of the commander or designated representative inspecting the work.

37b. STATUS. The appropriate status from table 1-19.

37c. DATE. The date the inspection was completed.

37d. TIME. The military time the inspection was completed.

38a. PICKED UP BY. The first name initial and last name of the person picking up the equipment.

38b. STATUS. The support maintenance clerk enters the work request status code "U" (Picked Up).

38c. DATE. The date the equipment was picked up.

PAGE NO. The page number. This form is used when more space is needed on the DA Form 2407. It can also be used to list parts and to control components in support maintenance activities.

NO OF PAGES. The total number of pages used (DA Form 2407 and DA Form 2407-1).

38d. TIME. The military time the equipment was picked up. Preparation Instructions (by block and title) for completion of a DA Form 2407-1 to record maintenance work at ASC and sustainment facility (depot) support maintenance.

REQUIREMENT CONTROL SYMBOL CSGLD-1047(R1). The control number from the DA Form 2407. If there is no control number on the DA Form 2407, enter the WON from the DA Form 2407.

#### **SECTION II--MAINTENANCE ACTIVITY DATA**

3a. WORK ORDER NUMBER (WON). The WON from block 3a of the DA Form 2407.

3b. SHOP SECTION CODE. The shop section code assigned to identify a particular maintenance shop section. Each maintenance battalion operating under the SAMS system locally assigns Codes A through Z. Units not using the SAMS system may leave blank.

3c. PHONE NO. The phone number (DSN/Commercial) from block 3c of the DA Form 2407.

**SECTION III--EQUIPMENT DATA**

25a. REMARKS. Use as a continuation to block 25 of the DA Form 2407 as needed, or prescribed locally.

**SECTION IV--TASK REQUIREMENTS DATA** (blocks 27a through 27i). Fill in the following sections and blocks according to the instructions for DA Form 2407.

**SECTION V--PART REQUIREMENTS** (blocks 28a through 28o).

*h.* Preparation instructions (by block and title) for DA Form 2407 to request application of an MWO/RSN are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

PAGE NO. Enter the page number.

NO OF PAGES. Leave this block blank.

**SECTION I--CUSTOMER DATA**

1a. UIC CUSTOMER. The UIC of the unit/organization that owns the aircraft, UAS subsystems, component/module or equipment to be modified.

1b. CUSTOMER UNIT NAME. The name of the unit in 1a.

1c. PHONE NO. The phone number (DSN/commercial) of the unit in 1a.

2a. SAMS-2 UIC/SAMS-1/TDA. If in transit enter the owning unit's UIC. Units not using SAMS, leave blank.

2b. UTILIZATION CODE. The appropriate Utilization Code from table 1-13.

2c. MCSR. Print the word "YES" or the letter "Y" if the item is reported under AR 700-138. This also applies to components and subsystems of an item/system that is reportable. Leave blank if not reportable under AR 700-138.

**SECTION II--MAINTENANCE ACTIVITY DATA.** To be completed by support maintenance ASC or sustainment facility (depot).

**SECTION III--EQUIPMENT DATA.**

5. TYPE MNT REQ. The appropriate Type Maintenance Request Code from table 1-18. Units not using the SAMS system may leave blank.

6. ID. The identification code that identifies the type of number you shall enter in block 7: A=National/NATO Stock Number. C=Manufacture's Code and Reference Number (Part Number). D=Management Control Number (MCN). P=Other (Dummy) Numbers

7. NSN. The NSN or appropriate number identified in block 6.

8. MODEL. The Mission Design Series of the equipment needing the MWO/RSN.

9. NOUN. The name of the item needing the MWO/RSN.

10a. ORG WON/DOC NO. The organization work order number or organization document number. For assignment of ORG WON for SAMS units (see para 3-11). Units not using the SAMS system may assign a local WON. The local WON shall be composed of 12 digits. The first six characters shall be the owning unit or activity UIC, followed by the two-digit year, and a four-digit number for number of DA Forms 2407 submitted in numerical order.

10b. EIC. The appropriate End Item Code that applies to your equipment, from appendix D-1.

11. SERIAL NUMBER. The serial number of the item in block 9. If the form is used for more than one item, leave blank.

12. QTY. The number of items being modified. Only one item shall be listed if equipment is reportable under AR 700-138 and is NMC.

13. PD. The PD; see DA Pam 710-2-1.

14. MALFUNCTION DESCRIPTION (for DSU, GSU/AVIM, DEPOT use). Leave blank.

15a. FAILURE DETECTED DURING/WHEN DISCOVERED CODE. Leave blank.

15b. FIRST INDICATION OF TROUBLE/HOW RECOGNIZED CODE. Leave blank.

16. MILES/KILOMETERS/HOURS/ROUNDS.

Miles: Leave blank.

Kilometers: Leave blank.

Hours: For aircraft enter the aircraft hours from the current DA Form 2408-13. For UA or UAS subsystems enter the current operating hours. For components/modules and assemblies, enter the time since new as calculated from the DA Form 2408-16 or total cumulative operating hours calculated from DA Form 2408-16-1. If the item in block 9 is not an aircraft, UA, UAS subsystem or is not listed in TB 1-1500-341-01 or LIS Parts Master LCF, leave blank.

Rounds: If a weapon system or weapon system sub component is in block 9, enter the total cumulative number of rounds fired. Get this information from the DA Form 2408-4-1 for the weapon system. If the weapon system does not have a DA Form 2408-4-1, leave blank. Leave blank when it does not apply.

17. PROJECT CODE. SAMS Units enter the assigned project code. If none is assigned, leave blank. Units not using SAMS may leave blank.

18. ACCOUNT PROCESSING CODE. The account processing code (APC) if required by your unit; otherwise leave blank. The APC is a code prescribed locally for costing and budget identification of customers and organizations (see TM 38-711-13-P2(Test)).

19. IN WARRANTY? Leave blank.

20. ADMIN NUMBER. For aircraft, UA, UAS subsystems and aviation components/modules, leave blank.

21. REIMBURSABLE CUSTOMER (if intransit customer enter Y or N). For ASC and sustainment facility (depot) use.
22. LEVEL OF WORK. The code for the maintenance level of the activity doing the work (F: Aviation Field Maintenance; D: sustainment facility (depot)).
23. SIGNATURE. The commander or their designated representative shall sign for all priority 01 through 10 requests. This signature approves the use of the PD.
24. DESCRIBE DEFICIENCIES OR SYMPTOMS ON THE BASIS OF COMPLETE CHECKOUT AND DIAGNOSTIC PROCEDURES IN EQUIPMENT TM (Do not prescribe repairs).
- a. Enter the MWO/RSN number(s). If more than one MWO/RSN is listed, make sure all the MWOs/RSNs apply to each component or end item covered by the form.
- b. When asking to have the MWOs/RSNs applied to components, list the component's end item NSN. Items and components of items listed in AR 700-138 cannot be combined on one form. Make out a separate DA Form 2407 for those items needing MWOs/RSNs.
- c. Components/modules listed in TB 1-1500-341-01 or LIS Parts Master LCF, also require a separate DA Form 2407.
- d. If you need more room, use a DA Form 2407-1.
25. REMARKS.
- 25a. When a MWO/RSN is applied to components or assemblies, list the component, assembly, and item NSN.
- 25b. List the procurement request order number (PRON), the fiscal station number, and the MFP or MOU identification number. Indicate any historical forms sent with the component/module or aircraft (see chaps 4 and 5).
- 34a. SUBMITTED BY. The first name initial and last name of the person preparing the form.
- 34b. DATE. The date the form was given to support.
- 35a. ACCEPTED BY. The first name initial and last name of the person accepting the work request.
- 35b. STATUS. The person accepting the request shall enter the work request status code. Table 1-19 lists these codes.
- 35c. DATE. The date the request is accepted.
- 35d. TIME. The military time the request is accepted.

i. Preparation instructions (by block number and title) for DA Form 2407 to report MWO/RSN application at support maintenance are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

PAGE NO. Already filled in by the unit requesting the MWO/RSN application.

NO OF PAGES. The total number of pages required to complete the maintenance actions.

REQUIREMENT CONTROL SYMBOL CSGLD-1047(R1). Leave blank.

SECTION I--CUSTOMER DATA. Already filled in by the unit requesting the MWO/RSN application.

SECTION II--MAINTENANCE ACTIVITY DATA.

3a. WORK ORDER NUMBER (WON). Units under the SAMS system shall enter the WON assigned by the support unit. Units not using the SAMS system may assign a local WON (see para 3-11c).

3b. SHOP. The shop section code assigned to identify a particular maintenance shop. Each maintenance battalion operating under the SAMS system locally assigns Codes A through Z. Example: A=Avionics Shop, B=Battery Shop, E=Engine Shop, and so on. Units not using the SAMS system may leave blank.

3c. PHONE NO. The phone number (DSN/commercial) of the maintenance activity applying the MWO/RSN.

4a. UIC SUPPORT UNIT. The Unit Identification Code of the maintenance activity applying the MWO.

4b. SUPPORT UNIT NAME. The unit name of the maintenance activity applying the MWO/RSN.

SECTION III--EQUIPMENT DATA. 5 THROUGH 13. Already filled in by the unit requesting the MWO/RSN application.

14. MALFUNCTION DESCRIPTION (for DSU, GSU/AVIM, DEPOT use). Leave blank.

15 THROUGH 20. Already filled in by the unit requesting the MWO/RSN application.

21. REIMBURSABLE CUSTOMER (if intransit customer, enter Y or N). Enter "Y" if the customer must pay the maintenance cost.

22 THROUGH 24. Already filled in by the unit requesting the MWO/RSN application.

25. REMARKS.

25a. When the item in block 7 needs on site or deferred maintenance, the ASC or sustainment facility (depot) activity shall enter one of the following statement: "Maintenance Request received on (date), on-site maintenance scheduled for (date), or owner to return item for modification on (date)."

25b. Use as needed locally or as prescribed by an SOP. The Receipt Copy 1 shall be retained at the ASC or sustainment facility (depot) activity. The owning unit keeps all other copies until the on-site repair is started or the deferred item is taken back to support.

26. TECHNICAL REFERENCES.

26a. The reference TM or technical publication as needed.

26b. Record NMCS, NMCM, and fully mission capable/PMC times (in hours). The start and end time and dates for

each NMC and NMCM period must be recorded.

#### SECTION IV--TASK REQUIREMENTS DATA.

27a. FILE INPUT ACT CD. Units using the SAMS system enter the File Input Action Code. For example, A=Addition of a new record file, C=Correction to the file records, D=Deletion of the record from the file. Units not using the SAMS system may leave blank.

27b. TASK NO. Leave blank.

27c. ACT CODE. The Action Code "H" for the MWO/RSN application and "G" for the final inspection of the application (see table 1-11).

27d. TASK DESCRIPTION.

27a. Enter the ID and NSN of the item getting the MWO. When the MWO/RSN changes the item's NSN, list the old NSN.

27b. Directly below the ID and NSN enter the MWO/RSN number.

27c. When applying one MWO to several items with the same NSN, list the MWO/RSN once, but list the NSNs on separate lines. Use DA Form 2407-1 if more space is required.

27d. When applying more than one MWO to an item, list the MWOs/RSNs in numerical order. When a component/module listed in TB 1-1500-341-01 changes NSN and/or Part Number, due to a MWO/RSN, DA Forms 2410 must be submitted losing the old NSN and/or Part Number. Update DA Forms 2408-5, DA Form 2408-5-1, DA Form 2408-16 or DA Form 2408-16-1 as necessary to reflect the MWO/RSN and changed data.

27e. QTY TO BE RPR. Number of items to be modified.

27f. WORK CENTER. Enter MIL when military personnel apply the MWO/RSN, CIV when civilians do the work, or CONTR when contractors do the work.

27g. FAILURE CODE. Enter the appropriate Failure Code:

a. 797 - MWO/RSN previously complied with.

b. 798 - MWO/RSN not applicable.

c. 801 - MWO/RSN compliance.

d. 802 -- Equipment previously modified/restored to original configuration (MWO/RSN removal).

27h. MH PROJ. Enter the number of man-hours projected to accomplish the task.

27i. MH EXP. Enter the number of man-hours actually expended to accomplish the task. Break the man-hours out by civilian, to include contractor or contractor field team, and military. If the MWO/RSN was previously applied and you do not know the actual hours, enter the estimated man-hours from the MWO publication.

SECTION V--PART REQUIREMENTS. If no extra work is done during application, leave this section blank or use as needed locally. If work is completed along with the MWO/RSN application, complete blocks 28a through 28l.

28a. FILE INPUT ACT CD. The File Input Action Code, same as 27a.

28b. TASK NO. The Task Number that generated the parts requirement. Units not using the SAMS system may leave blank.

28c. ID NO. The Identifying Number that identifies the type of information in the NSN field. A=National Stock Number. C=Manufacturer's Code and Reference Number. D=Management Control Number. P=Other (Dummy) Numbers.

28d. NSN OR PART NUMBER. The National Stock Number, Manufacturer's Part Number, or other number, as identified in block 28c for the item modified.

28e. SFX CD. Units not using the SAMS system may leave blank. Units using the SAMS system shall enter the Suffix Identification Code when applicable. This code allows the operator to use the same record key (that is, WOG, Task Number, Identification Code, and NSN), when adding the same NSN to a file. It enables the operator to bypass edits that normally would reject as being duplicates. Each new entry should be in sequential order. Blank, A-Z, 0-9 are the allowed entries.

28f. QTY RQD. The quantity of part(s) needed.

28g. QTY ISSUED. The quantity of part(s) issued to the mechanic.

28h. NMCS CD. If failure to get a part shall cause the item to become NMCS, enter "Y." If item shall not become NMCS, enter "N."

28i. FAILURE CODE. The Failure Code from tables 1-2 and 1-3 that best describes why the item failed.

28j. STORAGE LOCATION. Units not using the SAMS system may leave blank. Units using the SAMS system shall enter the storage location code, if it is a SSL item (see unit SOP).

28k. INITIALS. Units not using the SAMS system may leave blank. Units using the SAMS system shall enter the initials of the SSL clerk releasing the part to the mechanic.

28l. COST \$. Units not using the SAMS system may leave blank. Units using the SAMS system shall enter the total cost of the part(s). Multiply 28g by the FED LOG unit price.

28m. TOTAL MAN-HOURS. Add the Man-hours expended in block 27i, on all pages of DA Form 2407 and DA Form 2407-1, to get the total man-hours.

28n. TOTAL MAN-HOURS COSTS \$. Multiply block 28m, Total Man-hours, by the current local labor rate for total man-hour costs. Units not using the SAMS system may leave blank.

#### SECTION VI--COMPLETION DATA

29. QTY RPR. The number of items repaired. If no extra work is done during modification this section may be left blank or use as needed locally.
30. QTY CONDEMN. The number of items condemned.
31. QTY NRTS. The number of items not repairable at this activity.
32. EVAC WON. The WON assigned by the receiving maintenance unit if the item is evacuated.
33. EVAC UNIT NAME. The name of the unit to whom the item is evacuated.
- SECTION VII--ACTION SIGNATURES 34a and 34b. Already filled in.
- 35a. ACCEPTED BY. The first name, initial, and last name of the person accepting the work modification request.
- 35b. STATUS. The appropriate work request status code from table 1-19.
- 35c. DATE. The date that the work request was accepted.
- 35d. TIME. The military time that the work request was accepted.
- 36a. *Work started by.* The first name initial and last name of the person assigned the job of applying the MWO/RSN.
- 36b. *Status.* The appropriate work request status code from table 1-19.
- 36c. *Date.* The date the work was started.
- 36d. *Time.* The military time the work was started
- 37a. Inspected by.
- A technical inspector assigned shall monitor the MWO and/or RSN application, make a final inspection, and sign their first name initial and last name when MWOs and/or RSNs are applied by an Army maintenance activity.
  - A contracting officer's representative shall monitor the MWO and/or RSN application, make a final inspection, and sign their first name initial and last name when MWOs and/or RSNs are applied by a contractor. The person clearing the work enters their first name initial and last name.
  - An AMCOM OLR representative shall monitor the MWO application, make a final inspection, and sign their first name initial and last name when a contract field team applies the MWOs/RSNs.
- 37b. STATUS. The appropriate status from table 1-19.
- 37c. DATE. The date the inspection was completed.
- 37d. TIME. The military time the inspection was completed.
- 38a. PICKED UP BY. The first name initial and last name of the person picking up the equipment.
- 38b. STATUS. The support maintenance clerk enters the work request status code "U" (Picked Up).
- 38c. *Date.* The date the equipment was picked up.
- 38d. *TIME.* The military time the equipment was picked up.

### 3-10. Maintenance inspection checklist

a. *Purpose.* This checklist is provided to aid maintenance and QC personnel in the forms and records management for the following actions:

- Replacement of components and/or modules.
- After application or removal of a MWO/RSN.
- After compliance with a SOF message/TB.
- After installation or removal of equipment listed on the DA Form 2408-17.
- After completion of extensive maintenance, such as scheduled maintenance or phase.

b. *Use.* Verify that the forms, records, files, and charts have been updated by placing the date of the action and the initials of the person completing the action in the date and initial blocks. The form may be automated in a spreadsheet program.

c. Maintenance activities, contractor support activities, and depot-level maintenance activities will use maintenance inspection checklists, for the accomplishment of scheduled maintenance inspections (phase, periodic, PMS, PPM, or combat phase).

(1) When the maintenance inspection checklist requires aircraft disassembly, to complete an inspection requirement, enter the maintenance related actions on a DA Form 2408-13-2. Enter "DA Form 2408-13-2" and page number of the form in the Fault/Remarks Block on the inspection checklist. This will show that a DA Form 2408-13-2 was initiated to record the disassembly.

(2) If no faults were found relating to the inspection the person who completed the inspection task will enter "Inspection OK" in the Action Taken Block and put their PID in the Initial Block of the checklist. Requirements of MOC must be annotated upon component reinstallation.

(3) When a deficiency or fault related to the inspection requirement task is discovered, enter "DA Form 2408-13-1" or "DA Form 2408-13-3" and page number of the form in the Fault/Remarks Block and enter "Inspection Complete" in the Action Taken Block and their PID in the Initial Block of the checklist. This will show that a DA Form "2408-13-1" or "DA Form 2408-13-3" was initiated to record the deficiency or fault.

(4) All DA Forms 2408-13-1 and associated DA Forms 2408-13-2 used to correct faults or deficiencies discovered during the inspection will become part of the Logbook Flight Pack and be numbered as pages in the flight Pack. DA Forms 2408-13-3 and associated DA Forms 2408-13-2 used for faults or deficiencies discovered during the inspection

may become part of the Flight Pack or part of the inspection checklist and numbered as supplements to the inspection checklist.

(4) All forms completed during the inspection will be made available to Quality Control and Test Flight personnel, for a technical inspection, before the test flight. A “Zero Time Close-Out” will be accomplished before the test flight. Retain the inspection checklist in the maintenance office after the test pilot reviews all logbook and related maintenance forms and records. After completion of the test flight, attach the closed out Flight Pack to the maintenance inspection checklist and file in the 6-month flying file.

(5) Upon completion of the scheduled maintenance inspection and before accomplishment of the required test flight, assemble all logbook, maintenance, and historical forms and records, including the inspection checklist annotated during the scheduled inspection. Accomplish a form and records check, using the maintenance records checklist in table 3–9, to ensure that proper and accurate entries have been made and all forms and records are present, completed and updated before releasing the aircraft from maintenance.

*d. Disposition.* The completion of a phase, periodic, or PPM inspection will be recorded on the aircraft DA Form 2408–15. After completion of the scheduled maintenance inspection, required general test flight, and at the end of the mission day, the completed paper work (DA Form 2408–13, DA Form 2408-13–1, DA Form 2408–13–2, DA Form 2408–13–3, and Maintenance Inspection Checklist that is located in the MDS Technical Manuals) that documented the inspection will be filed in the aircraft 6-month file and maintained the same as the rest of the 6-month flying file.

**Table 3–7**  
**Sample of a maintenance records checklist**

Aircraft log book	Date	Initial	Historical records	Date	Initial
DA Form 2408–4–2	1/1/12	jd	DA Form 2408–5	1/1/12	jd
DA Form 2408–4–3	1/1/12	jd	DA Form 2408–5–1	1/1/12	jd
DA Form 2408–4–1	1/1/12	jd	DA Form 2408–15	1/1/12	jd
DA Form 2408–13	1/1/12	jd	DA Form 2408–15–2	1/1/12	jd
DA Form 2408–13–1	1/1/12	jd	DA Form 2408–16	1/1/12	jd
DA Form 2408–13–2	1/1/12	jd	DA Form 2408–16–1	1/1/12	jd
DA Form 2408–13–3	1/1/12	jd	DA Form 2408–17	1/1/12	jd
DA Form 2408–14–1	1/1/12	jd	DA Form 2408–19–1	1/1/12	jd
DA Form 2408–18	1/1/12	jd	DA Form 2408–19–2	1/1/12	jd
			DA Form 2408–19–3	1/1/12	jd
			DA Form 2408–20	1/1/12	jd
Locally required information					
Production control			Quality control		
<b>Records and/or files</b>	<b>Date</b>	<b>Initial</b>	<b>Records and/or files</b>	<b>Date</b>	<b>Initial</b>
Flowchart	1/1/12	jd	TBO file	1/1/12	jd
Status board	1/1/12	jd	QA file	1/1/12	jd
Workorder File	1/1/12	jd	Serial number file	1/1/12	jd
MWO and/or RSN file	1/1/12	jd	AOAP file	1/1/12	jd
1352–1 Reports	1/1/12	jd	Weight and balance	1/1/12	jd
DA Form 2407	1/1/12	jd			
DA Form 2407–1	1/1/12	jd			
Local records	1/1/12	jd	MSG file	1/1/12	jd
	1/1/12	jd	DA Form 2410 submitted local records	1/1/12	jd



### 3-11. DA Form 2410

#### a. Purpose.

(1) DA Form 2410 (Component Removal/Repair/Install/Gain/Loss Record) (RCS CSGLD-1052 (R3)) (1) The DA Form 2410 provides a method of recording and reporting maintenance data on selected aircraft, UA, and UAS subsystems, components and modules. It provides commanders and maintenance managers at all levels with data required for effective management of components and modules. Failure to complete DA Forms 2410 correctly on components and modules listed in TB 1-1500-341-01/LIS Parts Legitimate Code File (LCF) may cause an item to be scrapped, prematurely overhauled, or recapped. Incorrect reporting could permit the use of a critical item beyond its prescribed maximum allowable operating time (MAOT) which could increase the danger of an in-flight failure. Aircraft and UA components and modules listed in TB 1-1500-341-01/LIS Parts LCF shall be referred to throughout this pamphlet as "reportable items." Data recorded and reported on this form includes, but is not limited to, identification and location of the item, current serviceability status, failure description, and the major item of equipment the reportable item is installed on or removed from.

(2) AMCOM, Logistics Center (ALC), Strategic Integration Office, Logistics Information & Communications Division is the proponent office responsible for assuring compliance in the preparation, receipt, storing, use and disposition of DA Form 2410 data. A web based application (Maintenance Consolidated Database System (MCDS)) has been developed that allows crew chiefs, Quality Control personnel, repair facilities, sustainment facility (depots), program managers, engineers, and manufacturers to review DA Form 2410 data submitted to AMCOM. MCDS allows units and AMCOM to better manage tracked aviation, UA, and UAS subsystems, components and modules with the most current information. Units shall verify already submitted DA Form 2410 data and they may submit DA Form 2410 data using the Web based application, and verify that their DA Form 2408-16/DA Form 2408-16-1 is the same as AMCOM's. Units that are submitting paper DA Form 2410s are encouraged to use this system to submit their DA Form 2410 data electronically instead of mailing hard copies. MCDS prints a copy of the DA Form 2410 to accompany reportable items. AKO user ID and password is required to access the application. For access go to <http://tammsa.redstone.army.mil>.

(3) The Army uses electronic systems that require less paper whenever a reportable item is entered/gained into the Army system, removed from the next higher assembly, or placed back into the supply system but a current paper copy of the DA Form 2410 with the correct information shall accompany the reportable item because not all contractors or repair facilities have the LIS or access to AMCOM's MCDS, or the field unit may be where they do not have connectivity to the internet. Paper forms are also required for backup in case of emergencies.

(4) The lower right hand corner of the REMARKS block on the DA Form 2410 is reserved for automated systems to enter the unique item identification (UII) matrix.

#### b. Use.

(1) The DA Form 2410 is a one-page form to provide historical data on removals, repairs, recaps, overhauls, installations and gains/losses to the Army inventory for reportable items. Previous editions of the DA Form 2410 shall not be used.

(2) DA Form 2410 is divided into four sections -

(a) *Maintenance action.* This section is used to show if this copy is an Install or a Remove, or a Repair or a Gain/Loss.

(b) *Identification.* This section is used to identify the reportable item and to provide necessary usage data, and failure code.

*Note.* The serial number required in block 4 for reportable items is a very important piece of data. Without the serial number, the form is useless. If the serial number is missing when the form arrives at AMCOM the submitter shall be contacted to supply the serial number. Serial Numbers will not be changed or modified by DMWRs, MWOs, ECPs, MECs or other maintenance directives.

(c) *Next higher assembly install and remove information.* This section is used to identify the aircraft, UA, UAS subsystems, component, or assembly from which the reportable item was removed from or installed on, the NHA hours at removal or installation, the When Discovered and Malfunction Codes when removed and other meter readings at time of removal or installation.

(d) *Gain, loss, repair, and/or admin information.* This section is used to identify the organizations that remove, install, repair, recap, modify, overhaul, gain, lose and/or test the reportable item. If the item is a gain or a loss to the inventory record the reason in this section and show who/where the item is shipped to. If the modification changes the Part number and/or the NSN of the component enter the new Part Number and/or NSN for this action.

(3) Prepare the DA Form 2410 when—

(a) A reportable item is first placed in the Army inventory. This includes installed or uninstalled items and reportable items received from MAP countries, other (non-Army) Government agencies, departments, manufacturers, and military services when reportable items are used or may be used by the Army.

(b) A serviceable or an unserviceable reportable item is removed from an aircraft, subsystems, or component and the item is not reinstalled on the same aircraft, UA, UAS subsystems, or component, such as a Controlled Exchange.

*Note.* Only one DA Form 2410 is prepared for a major component removed by the using organization or support unit. For example, when a GE-E-701D engine is removed from an aircraft, only one DA Form 2410 for the engine is needed at time of removal. This

process holds true even though the engine has other installed reportable items. The sustainment facility (depot) or repair facility is responsible for subcomponent's DA Form 2410 when they remove/replace the subcomponents.

(c) A serviceable or unserviceable reportable item is removed from an aircraft, UAS subsystems or component for inspection, repair, recap, overhaul, or MWO.

(d) The serviceability status of an uninstalled reportable item changes for any reason.

(e) The PN and/or NSN of a reportable item are changed as a result of a MWO/RSN/SCP or other directive.

(f) A reportable item is disposed of through the DRMS.

(g) An item is lost to the Army inventory through FMS.

*c. General instructions.*

(1) When not utilizing a LIS system or the AMCOM MCDS, complete a paper copy of DA Form 2410 using black or blue ballpoint pen. Slash all zeros on the form to distinguish the zeros from the letter "O."

(2) If an error is found on a DA Form 2410, contact the DA Form 2410 Hotline to resolve the issue..

(3) Reportable items sent to a supply or maintenance activity shall have a paper copy of the DA Form 2410 and all historical records attached. If not, the unit that turned the item in shall be contacted to provide the missing form or to provide the data needed to prepare a new form.

(4) A DA Form 2410 is required for each individual component/module identified in TB 1-1500-341-01/LIS Parts LCF. Locally tracked items require a DA Form 2410 with current information to accompany the item to a supply or maintenance activity. Completing a DA Form 2410 for a "Locally" tracked item that does not have a serial number already identified on the part or on an accompanying DA Form 2410 shall have a temporary serial number assigned using the NHA serial number followed by the Julian date it is installed on followed by a two-digit sequence number; such as, A116350814201 (A11635 is the NHA serial number, 08142 is the Julian date, and 01 is the sequence number).

(5) Words and acronyms such as "new" "unk" or "N/A" shall not be used on this form (unless so stipulated in other instructions) because of automation tasks and reports accomplished at the NMP level.

(6) Condition status and other important data on the item, after repair, recap, overhaul, or inspection as indicated in blocks 6 through 10 shall be annotated on the DD Form 1574/DD Form 1574-1 attached to the reportable item.

(7) The electronic data on DA Form 2410 generated by any LIS system shall be migrated to AMCOM.

(8) Units losing and/or shipping components to DRMS, FMS, other Government agencies or civilian organizations are required to submit a DA Form 2410 (Gains to Inventory).

(a) When an aircraft is lost to the Army inventory do not submit a loss to the Army inventory for each installed component but follow the procedures in paragraphs 1–16 through 1–20 for loss to the Army inventory of an aircraft. AMCOM shall complete the transactions for the installed components.

(b) Do not submit a DA Form 2410, loss to the Army inventory, for H–60 helicopter components shipped to the Air Force or installed on Air Force H–60 aircraft. Data for components installed on these aircraft are maintained in the AMCOM DA Form 2410 database.

(9) Paragraphs 3–12 through 3–17 provide specific preparation and disposition instructions for the DA Form 2410 use. The various instructions are—

(a) Paragraph 3–12: Gain to Inventory.

(b) Paragraph 3–13: Normal removal, repair, overhaul and/or rebuild, and installation.

(c) Paragraph 3–14: Changes from serviceable to unserviceable status for uninstalled items.

(d) Paragraph 3–15: PN and/or NSN changes.

(e) Paragraph 3-16: Removal of serviceable items for controlled exchange.

(f) Paragraph 3-17: Losses to inventory.

*d. Disposition.*

(1) Completed paper copies of DA Form 2410 that are not processed in a LIS system or AMCOM's MCDS shall be mailed, on the date each copy is completed to Commander, AMCOM, (AMSAM-MSI-LM (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898–5000. Do not wait until you have a large quantity of DA Forms 2410 to mail.

(2) Place the completed paper copies, that shall accompany the component and/or module, in a waterproof envelope (NSN 8105–00–183–6958) that is clearly marked with the words "Important Papers Inside Do Not Destroy." If this envelope is not available a suitable clear plastic envelope with a closure feature, that is, top folded and secured with staples or zip lock seals may be used with a paper insert placed inside with bold print stating: "Important Papers Inside Do Not Destroy." The important part is that the envelope must protect the documents from the elements and must be securely attached to the component. When any of the following forms are applicable, they shall be placed in the envelope with the DA Form 2410: DA Form 2408–5–1, DA Form 2408–15, DA Form 2408–16, DA Form 2408–16–1, DA Form 2408–19, DA Form 2408–20 and a copy of the Category I or Category II (SF 368).

### **3–12. DA Form 2410**

*a. Preparation.*

(1) The manufacturer or contractor shall fill out and sign DA Form 2410 per the contract data requirement list

(CDRL) of their contract(s) on reportable items. AKO user name or the first name, initial and last name on the form certify status or condition of the item.

(2) When an item(s) comes directly from the manufacturer without a DA Form 2410, the receiving unit shall first contact the DA Form 2410 Hotline to see if a gain copy has already been received. If a gain is not in the MCDS database complete a DA Form 2410 gain copy.

(3) When the gain of an item(s) (serviceable or unserviceable) is a result of an action other than (1) and (2), initiate a gain and/or loss copy filling in applicable blocks 1 through 21, 34, 35, 39, and 41 through 46. The proper gain code goes in block 35.

(4) This also applies to serviceable and unserviceable item(s) returned from outside the Army inventory; such as FMS customers. If the item is being gained by an organization or unit different from the repair or overhaul facility, the organization shall initiate the gain and/or loss copy and enter a statement (why the item is being gained, where it came from and any other pertinent information) in the remarks block.

(5) A copy of the DA Form 2410 shall go with the item until it is installed. After the copy for AMCOM has been completed and printed, keep all the information in blocks 1 through 21 and the remarks block, delete all the information in blocks 22 through 48 and print a copy to go with the item.

*b. Disposition.*

(1) For a normal gain of a serviceable item—

(a) The DA Form 2410 gain and/or loss copy is sent to AMCOM.

(b) Copy of the DA Form 2410 shall stay with the item until it is installed.

(2) For an item returned from outside the Army inventory—

(a) A copy of DA Form 2410 shall remain with the item until it is repaired or overhauled, and then send to AMCOM.

(b) A copy of DA Form 2410 stays with the item until it is installed.

(3) Preparation instructions (by block number and title) for DA Form 2410 showing gains to the Army inventory are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

Maintenance action. Put a check mark or 'X' in the small box prior to the shaded "gain and/or loss." Identification.

1. Nomenclature. The item name.

2. National stock number. The NSN of the item.

3. Part number. The part number of the item.

4. Serial number. The SN of the item. Do not enter more than one SN in this block.

5. MII. Enter the maintenance inspection indicator (MII) (an inspection, procedure, and/or modification code appended to the SN or an MII listed on the data plate). If none, leave blank.

6. CAGE code. Enter the contractor and Government entity (CAGE) code for the item (found on the item data plate).

7. Landings. For OH-58D (Side Beams or Transverse Roof Beams), enter the adjusted component landings. For OH-58D (Corner Mounts or Restraint Spring Assemblies), enter the total landings.

8. NO. OF PREV O/Hs. Enter the number of times that the item has been overhauled. If the item has never been overhauled, enter zero. For RC or CC items, leave blank.

9. Time since last inst. Enter the number of hours, to the nearest hour, that the item has operated since it was last installed. If the item is new, enter zero. For T55-GA-714A engine, HMA, Compressor Rotor Assembly, and Power Turbine Assembly, enter the operating hours since last installed. For T55-GA-714A components tracked by cycles, leave blank.

10. Time since new. Enter the total number of hours, to the nearest hour, that the item has been operated since it was new. If the item is new, enter zero. For APUs without an installed hour meter and any meter tracked items requiring a DA Form 2408-33, enter zero. For T55-GA-714A engine, HMA, Compressor Rotor Assembly, and Power Turbine Assembly, enter the total operating hours since new. For T55-GA-714A components tracked by cycles enter the current total cycles.

11. Time since O/H. If the item has been overhauled before, enter the number of hours, to the nearest hour, that the item has operated since the last overhaul. If the item has never been overhauled, enter zero. For RC and CC items, leave blank. For APUs and any meter tracked items requiring a DA Form 2408-33, enter zero (0).

12. FAIL CODE. For new items enter "799." For other items enter the appropriate failure code from tables 1-3 or 1-5.

13. METER HRS. Enter the hour meter reading for items to be tracked using an hour meter.

14. HSF. For T703 engines, enter the total hot section factors.

15. WUC. Enter the WUC that applies. Found in TB 1-1500-341-01 or LIS Parts LCF.

16. CONFIG CODE. Enter the applicable configuration code for this item found in the LIS Parts LCF.

17. COMPONENT CUMULATIVE COUNT/HOURS. For T700 series engines, components/modules, and subcomponents enter the total cumulative counts/hours for the item in block 1. This entry is also required for history recorders. Enter only operating hours, block 17d, for components/modules entered on the reverse side of the engine DA Form 2408-16-1 that do not require a separate DA Form 2408-16-1. If the item is new, enter zero .

- 17a. LCF 1. For T700 series engines, components/modules, or subcomponents, enter the total cumulative LCF1 counts.
- 17b. LCF 2. For T700 series engines, components/modules, or subcomponents, enter the total cumulative LCF 2 counts.
- 17c. TTI. For T700 series engines, components/modules, or subcomponents, enter the total cumulative TTI counts.
- 17d. OP POS. For T700 series engines, components/modules, or subcomponents, enter the total cumulative operating hours.
18. POSITION. Leave blank.
19. STARTS SINCE NEW. Enter the total APU starts since new. If the APU is new enter zero.
20. STARTS SINCE O/H. Enter the number of starts since the APU was last overhauled. If the APU is new or has never been overhauled, enter zero.
21. VERSION. Enter the version of the software installed for the item entered in block 1.
- NEXT HIGHER ASSEMBLY (NHA) INSTALL/REMOVE INFORMATION
- 22 THRU 33. Leave blank.
- GAIN, LOSS, REPAIR, and/or ADMIN INFORMATION.
34. INSPECTION ACTION CODES. Put a check mark or an X in the small block prior to the correct Inspection Action Code.
35. GAIN OR LOSS CODE. Enter A for new manufactured items or other codes from table 1-16 that best describes the reason for gain.
- 36 THRU 41. Leave blank.
42. UIC. Enter the Unit Identification Code for the organization taking this action. If a contractor, enter the CAGE code prefixed with a K.
43. CONTRACT NUMBER. Enter the contract number that the item in block 1 was procured under. Use this block for A gains only.
44. DATE. Enter the date that the item, in block 1, was declared serviceable by the manufacturer/contractor or the date the item was accepted in the Army inventory by the receiving unit.
45. PID AND TELEPHONE NUMBER. Enter the first name, initial, and last name and telephone number of the person declaring the item serviceable.
46. AKO USER NAME. Person completing this action shall enter their AKO user name. Leave blank if no AKO user name.
- 47 and 48. Leave blank.

*Remarks.* Provide any information not considered routine. The lower right-hand corner of this block is reserved for automated systems to enter the Unique Item Identifier (UII) matrix. Submit to AMCOM, and then delete the information in blocks 35 thru 48. Print a copy and send with the component/module until installation.

### 3-13. DA Form 2410

*a. Preparation.* One copy of DA Form 2410 (Component Removal/Repair/Install/Gain/Loss Record) shall be completed to show the removal, another copy shall be completed to show the repair, recap or overhaul, and another copy shall be completed to show the installation of the component. The selection of failure codes that best describes the reason for failure or removal, to achieve a maintenance action, is very important when the DA Form 2410 is filled out. The failure codes are listed in alphabetical sequence in table 1-002 for field units and 1-3 for repair facilities and sustainment facility (depot(s)). The original failure code in block 12 is entered by unit-level maintenance personnel and can change one or more times after removal and during the maintenance and repair process of the reportable item. After repair, recap, inspection, or overhaul, personnel responsible for filling out the form shall select the actual failure code from table 1-3 or 1-5 and put it in block 38. When the item is returned to the supply system a line shall be drawn through the original failure code in block 12, and failure code "799" entered. The serviceability status of the item can be found in block 34 and on the materiel condition tag/label attached to the reportable item.

#### *b. Disposition.*

- (1) The organization that removed the item shall complete a DA Form 2410 REMOVE copy and send to AMCOM.
- (2) The maintenance activity shall send a DA Form 2410 REPAIR copy to AMCOM, after repairing, recapping, inspecting, or overhauling the item.
- (3) When an item is received and thought to be unserviceable, but is found to be serviceable, the activity that determined the item is serviceable shall complete a DA Form 2410 copy with the identification area and ADMIN completed and send to AMCOM.
- (4) The organization that installs the item shall complete a DA Form 2410 INSTALL copy and send to AMCOM.
- (5) Preparation instructions (by block number and title) for completion of a DA Form 2410 for the normal removal of a reportable item are listed below.

*Maintenance action.* Put a check mark or an X in the box prior to the shaded REMOVE block.

#### *Identification.*

1. NOMENCLATURE. The item name.

2. NSN. The NSN of the item.
  3. PART NUMBER. The Part Number of the item.
  4. SERIAL NUMBER. The Serial Number of the item. Do not enter more than one SN in this block.
  5. MII. Enter the Maintenance Inspection Indicator (an inspection/procedure/modification code appended to the SN or an MII listed on the dataplate).
  6. CAGE CODE. Optional. Required only on DA Form 2410 Gain copies.
  7. LANDINGS. For OH-58D Side Beams or Transverse Roof Beams, enter the adjusted component landings. For OH-58D Corner Mounts or Restrain Spring Assemblies, enter the total landings.
  8. NO. OF PREV O/Hs. Enter the number of times that the item has been overhauled. Get this information from block 6d of the DA Form 2408-16. If the item has never been overhauled, enter "0." For RC or CC items leave blank.
  9. TIME SINCE LAST INSTL. Enter the number of hours the item has been operated since it was last installed. Get this information from DA Form 2408-16 by subtracting block 6e from 6f. For T700 series engines get this information from the DA Form 2408-16-1 by subtracting the total cumulative hours at installation from the total cumulative hours at removal. For AN/ALQ144s enter zero (0), enter the meter hours in block 13. For APUs get this information from the DA Form 2408-16-2. For APUs without an installed hour meter enter zero (0). For T55-GA-714A engine, HMA, Compressor Rotor Assembly, and Power Turbine Assembly, enter the operating hours since last installed. For T55-GA-714A components tracked by cycles, leave blank.
  10. TIME SINCE NEW. Enter the total number of hours that the item has been operated since it was new. Get this information from block 6i of the DA Form 2408-16. For T700 series engines get this information from the DA Form 2408-16-1. For AN/ALQ144s enter zero. For APUs with an installed hour meter, enter the total hours since new. For APUs without an installed hour meter enter zero. For T55-GA-714A engine, HMA, Compressor Rotor Assembly, and Power Turbine Assembly, enter the total operating hours since new. For T55-GA-714A components tracked by cycles, enter the current total cycles.
  11. TIME SINCE O/H. If the item has been overhauled before, enter the number of hours that the item has operated since the last overhaul. Get this information from the DA Form 2408-16; subtract block 6e from 6f, then add block 6g. When the item has never been overhauled, enter zero. For RC or CC items, leave blank.
  12. FAILCODE. Enter the appropriate failure code.
  13. METER HRS. Enter the hour meter reading for items tracked using meter hours.
  14. HSF. For T703 engines, enter the total number of hot section factors.
  15. WUC. Enter the work unit code that applies.
  16. Config code. Enter the applicable configuration code for this item found in the LIS Parts LCF.
  17. COMPONENT CUMULATIVE COUNT/HOURS. For T700 series engines, components/modules, and sub components enter the total cumulative counts/hours for the item in block 1. This entry is also required for history recorders. Enter only operating hours (in block 17d) for components/modules entered on the reverse side of the engine DA Form 2408-16-1 that do not require a separate DA Form 2408-16-1. If the item is new, enter zero.
  - 17a. LCF 1. For T700 series engines, components/modules, or subcomponents enter the total cumulative LCF 1 counts.
  - 17b. LCF 2. For T700 series engines, components/modules, or subcomponents, enter the total cumulative LCF 2 counts.
  - 17c. TTI. For T700 series engines, components/modules, or subcomponents, enter the total cumulative TTI counts.
  - 17d. OP HOURS. For T700 series engines, components/modules, or subcomponents, enter the total cumulative operating hours.
  18. POSITION. Enter the position that the engine was installed in, number 1 for left engine and number 2 for right engine.
  19. STARTS SINCE NEW. For APUs, enter the total starts since new. If the APU is new, enter zero.
  20. STARTS SINCE O/H. For APUs, enter the number of starts since the last overhaul. If the APU is new or has never been overhauled, enter zero.
  21. VERSION. Enter the version of software installed for the item entered in block 1.
- NEXT HIGHER ASSEMBLY (NHA) INSTALL / REMOVAL INFORMATION**
22. NHA NOMENCALTURE. The name of the next higher assembly, from which the item in block 1 was removed. This information is on the DA Form 2408-16, block 1, or DA Form 2408-16-1, block 3.
  23. NHA NSN. The national stock number of the item in block 22.
  24. NHA part number. The part number of the item in block 22.
  25. NHA serial number. The serial number of the item in block 22.
  26. NHA HOURS. If the next higher assembly is an aircraft enter the current aircraft hours. When the item in block 22 is a component, enter the components operating hours since new. If the item in block 22 is a T55-GA-714A engine, Compressor Rotor Assembly, or Power Turbine Assembly, enter the total operating time for the item.
  27. START METER. Enter the reading from the APU start meter at the time of APU removal. If the APU does not have a start meter, leave blank.
  28. METER HRS. Enter the reading from the APU hour meter at the time of APU removal. If the APU does not have an hour meter, leave blank.
  29. HISTORY RECORDER SN. If a T700 series engine is entered in block 1 or block 22, enter the engine history

recorder serial number. Leave blank if a history recorder is not used. Do not enter a history recorder serial number from a slave engine used for component or module testing.

30. MALFUNCTION CODE. The malfunction effect code (table 1-8 or the front side of DA Form 2408) that most closely described the effect the malfunction had on the mission.

31. WHEN DISCOVERED. The when discovered code (Table 1-6) that identifies when the failure was first detected.

32. HISTORY RECORDER READING. If a T700 series engine is entered in block 1 or block 22, enter the current reading from the engine history recorder.

33. NHA CUMULATIVE COUNTS/HOURS. Enter the total cumulative counts and hours since new for the T700 series engine, component, or module entered in block 22. Obtain the total cumulative counts from the DA Form 2408-16-1 for the item. If a T700 series engine, component or module is not entered in block 22; leave blank.

*Gain/loss/repair/admin information.*

34. *Inspection action codes.* Put a check mark or an X in the small box prior to UNSERVICEABLE or in the small box prior to the reason for removal.

35 through 38. Leave blank.

39. MAINT LEVEL. The Maintenance level ("F" for Field, "D" for sustainment facility (depot)) of the unit/activity doing the removal.

40. MANHOURS. The man-hours it took to remove the item, in hours and tenths (see time conversion codes, table 1-14, at the end of chapter 1 or the backside of DA Form 2408.)

41. SRA. If an special repair activity (SRA), enter a "Y." If not an SRA, leave blank.

42. UIC. The Unit Identification Code for the organization taking this action. If a contractor, enter the CAGE code prefixed with a "K."

43. CONTRACT NUMBER. Leave blank.

44. DATE. The date the removal action was completed.

45. PID AND PHONE NUMBER. The individual completing the form shall enter their first name, initial, and last name, and phone number (DSN and commercial). The phone number and name shall be used at the national level to clarify entries.

46. *AKO user name.* Enter your AKO user name if assigned, otherwise leave blank.

47 and 48. Leave blank.

*Remarks.* Make an entry stating all pertinent information when the total cumulative counts and hours on a T700 series engine or module/component were calculated due to history recorder failure. For OH-58D Side Beams or Transverse Roof Beams, enter "ADJUSTED COMPONENT HOURS EQUAL XXXX." For T703-AD-700/700A/700B, enter the total cycles. Provide any information that may be helpful to the higher-level maintenance activity to repair the item, to include location of leaks, breakage, or suspected reason for the fault. Complete information can save time and dollars. The lower right-hand corner of this block is reserved for automated systems to enter the unique item identification (UII) matrix. Submit to AMCOM. Then delete the information in blocks 22 through 46, print a copy and send with the component for repair.

(6) Preparation instructions (by block number and title) for DA Form 2410 for repair/overhaul/recap are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

**MAINTENANCE ACTION.** Put a check mark or an X in the box prior to the shaded REPAIR block.

**IDENTIFICATION.** Blocks 1 through 21 should already be filled in. The Repair/Overhaul/Recap section appears on the lower part of the DA Form 2410 form under GAIN/LOSS/REPAIR/ADMIN INFORMATION. Entries in this section are filled in by the repair/overhaul/recap activity that returns the item to a serviceable condition. The repair activity shall also update blocks 8, 9, 11, 12, 13, 17, 19, 20, and 34, as necessary, by lining out existing entries and providing the correct data. For T703 engines, after completion of repair/overhaul/recap line out the HSF counts in block 14 and enter the updated HSF counts. The repair facility shall also make an entry, in block 7 of the engine DA Form 2408-16, showing the HSF counts after repair/overhaul/recap. After repair, to ensure serviceability, the cumulative counts/hours must be updated on T700 series engine components/modules, or sub components that have operated on a slave engine. Calculate the LCF 1, LCF 2, TTI, and OP HOURS accumulated while operating on the slave engine and add to the counts/hours in block 17, line out the old counts and hours and enter the updated counts and hours. Update the time since new in block 10. The DA Form 2408-16-1, line 1, must also be updated. If an overhaulable (TC) component is repaired at an SRA facility, do not update/change blocks 8, 9, 10, and 11. An SRA facility may make repairs but cannot take credit for an overhaul.

**NEXT HIGHER ASSEMBLY (NHA) INSTALL / REMOVE INFORMATION.** Blocks 22 through 33 should be left blank. They shall be completed when the component is installed.

**GAIN/LOSS/REPAIR/ADMIN INFORMATION**

34. **INSPECTION AND ACTION CODES.** Put a check mark or an X in the small box prior to the correct action code.

35. **GAIN OR LOSS CODE.** If a DMWR, MWO or repair instructions requires a PN and/or NSN change then you are required to do an "M" Loss for the old PN and/or NSN and then do a "S" gain for the new PN and/or NSN; otherwise, leave blank.

36. **NEW PART NUMBER.** If the DMWR, MWO or repair instructions stated to change the part number enter the new part number here; otherwise, leave blank.
37. **NEW NSN.** If the DMWR, MWO or repair instructions stated to change the National Stock Number enter the new NSN here; otherwise, leave blank.
38. **ACTUAL FAILURE CODE.** Block 12 of this form identifies the initial failure code at time of removal. Upon further disassembly and exploration, the root cause for failure may be different from that observed at time of removal. The overhaul/repair/SRA facility shall enter the actual failure code in this block. See table 1-2 or 1-3 at the end of chapter 1 for the failure code.
39. **MAINT LEVEL.** Enter the level of the maintenance ("F" for ASC/STB , "D" for sustainment facility (depot)) of the activity performing the action indicated in block 34.
40. **MANHOURS.** The total man-hours, in hours and tenths, it took to repair, recap, inspect, overhaul, or rebuild the item (see time conversion chart, table 1-14, at the end of chapter 1 or the backside of DA Form 2408).
41. **SRA.** If the item in block 1 was repaired using a special repair authorization from AMCOM enter Y; all others, leave blank.
42. **UIC.** The Unit Identification Code of the organization that completed the action shown in block 34. If a contractor, enter the CAGE code prefix with a "K."
43. **CONTRACT NUMBER.** Leave blank.
44. **DATE.** The date the form is completed.
45. **PID AND PHONE NUMBER.** The person completing the form shall sign and enter their first name, initial, and last name and phone number (DSN/commercial). The phone number and name shall be used to clarify entries.
46. **AKO USER NAME.** The person completing the forms shall enter their AKO user name. Leave blank if no AKO user name.
- 47 and 48. Leave blank.

**REMARKS.** Provide brief pertinent remarks for the action checked in block 34. Make an entry stating all pertinent information when the total cumulative counts and hours on a T700 series engine or module/component were calculated due to history recorder failure. For OH-58D Side Beams or Transverse Roof Beams, enter "ADJUSTED COMPONENT HOURS EQUAL XXXX." For T703-AD-700/700A/700B, enter the total cycles. The lower right-hand corner of this block is reserved for automated systems to enter the unique item identifier (UII) Matrix. After repair, recap, overhaul, and rebuild, submit to AMCOM, then change the failure code in block 11 to "799." Delete the information in blocks 34 thru 46. In block 34, put a check mark or an X in the small box next to SERVICEABLE. Print a copy of the form and send with the serviceable component for use during installation.

(7) Preparation instructions (by block number and title) for DA Form 2410 for an installation are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

- MAINTENANCE ACTION.** Put a check mark or an X in the box prior to the shaded INSTALL block.
- IDENTIFICATION.** Blocks 1 through 21 and block 34 should already be filled in. When installing an engine on a multi-engine aircraft, check the position number in block 18 and if needed line out the old position number and enter the new position number, number 1 for left engine or number 2 for right engine.
- NEXT HIGHER ASSEMBLY (NHA) INSTALL / REMOVE INFORMATION.**
22. **NHA NOMENCLATURE.** The name of the next higher assembly on which the item is installed.
23. **NHA NSN.** The National Stock Number of the item in block 22.
24. **NHA PART NUMBER.** The Part Number of the item in block 22.
25. **NHA SERIAL NUMBER.** The Serial Number of the item in block 22.
26. **NHA HOURS.** If the next higher assembly is an aircraft enter the current aircraft hours, to the nearest hour. If item is a component, enter the operating hours, to the nearest hour, since new. If the item in block 22 is a T55-GA-714A engine, Compressor Rotor Assembly, or Turbine Rotor Assembly, enter the total operating time for the item.
27. **START METER.** Enter the reading from the APU start meter at the time of APU installation. If the APU does not have a start meter, leave blank.
28. **METER HRS.** Enter the reading from the APU hour meter at the time of APU installation. If the APU does not have an hour meter, leave blank.
29. **HISTORY RECORDER SN.** If a T700 series engine is entered in block 1 or block 22, enter the engine history recorder serial number. Leave blank if a history recorder is not used. Do not enter a history recorder serial number from a slave engine used for component or module testing.
30. *Malfunction code.* Leave blank for installation.
31. **WHEN DISCOVERED.** Leave blank for installation.
32. **HISTORY RECORDER READING.** If a T700 series engine is entered in block 1 or block 22, enter the current reading from the engine history recorder.
33. **NHA CUMULATIVE COUNTS/HOURS.** Enter the total cumulative counts and hours since new for the T700 series engine, component or module entered in block 22. Obtain the total cumulative counts from the DA Form 2408-16-1 for the item. If a T700 series engine, component, or module is not entered in block 22, leave blank.

GAIN / LOSS / REPAIR / ADMIN INFORMATION

34. INSPECTION AND ACTION CODES. No action required, should already have a check mark or an X in the small box prior to SERVICEABLE.

35 through 37. Leave blank.

38. ACTUAL FAILURE CODE. No action required; should already have 799 entered.

39. MAINTENANCE LEVEL. The maintenance level ("F" for ASC, or "D" for sustainment facility (depot)) performing the action.

40. *Manhours*. The manhours, in hours and tenths, it took to install the item in block 1.

41. *SRA*. If the item in block 1 was installed by a special repair authorization from AMCOM, enter a Y; others leave blank.

42. *UIC*. The unit identification code of the organization doing the installation. If a contractor, enter the CAGE code prefixed with a "K."

43. *Contract number*. Leave blank.

44. *Date*. The date the reportable item was installed.

45. *PID and phone number*.. The individual completing the form shall enter their first name, initial and last name and phone number (DSN/commercial). The phone number and name shall be used at the national level to clarify entries.

46. *AKO USER NAME*. The person completing the form shall enter his or her AKO user name. Leave blank if no AKO user name.

47 and 48. Leave blank.

*Remarks*. Provide brief pertinent remarks. For OH-58D Side Beams or Transverse Roof Beams, enter "ADJUSTED COMPONENT HOURS EQUAL XXXX." For T703-AD-700/700A/700B, enter the total cycles. Submit this copy to AMCOM.

### 3-16. DA Form 2410

*a. Preparation*. When a serviceable, uninstalled item becomes unserviceable for any reason, such as damaged in shipment, the owning activity must fill out the existing DA Form 2410 and prepare a new DA Form 2410.

*b. Disposition*.

(1) The DA Form 2410 that was with the item when the item was found to be unserviceable shall be filled out by the owning activity and sent to AMCOM.

(2) A new DA Form 2410 shall be started and remain with the item until it is repaired.

(3) Preparation instructions (by block number and title) for completion of a DA Form 2410 for changes from serviceable to unserviceable uninstalled items are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

*Maintenance action*. No action required.

*Identification*. Update block 12 to show the current failure code.

*Next higher assembly (NHA) install/removal information*. No action required.

*Gain/loss/repair/admin information*.

34. *Inspection action codes*. If the change in serviceability status resulted from the publication of an MWO/RSN, or other directive enter a check mark or an X in the small box in front of MWO. If the serviceability status changes because of damage, enter a check mark or an X in the small box in front of UNSERVICEABLE. If both UNSERVICEABLE and MWO apply and the MWO includes an NSN or PN change, follow procedures for an NSN and/or PN change.

35 through 41. No action required.

42. *UIC*. The UIC for the activity that has the item listed in block 1. If a contractor, enter the CAGE code prefixed with a "K."

43. *Contract number*. Leave blank.

44. *Date*. The date the item was determined to be unserviceable.

45. *PID and phone number*.. The person completing the form shall enter their first name, initial and last name, and telephone number (DSN/commercial).

46. *AKO user name*. The person completing the form shall enter their AKO user name. Leave blank if no AKO user name.

47 and 48. Leave blank.

*Remarks*. Enter any additional information that could be helpful in the repair of the item, or the cause of the damage. Submit the old DA Form 2410 data to AMCOM. Delete all the information in blocks 35 through 48, print a copy of the DA Form 2410 and send with the unserviceable component to be repaired.

### 3-15. DA Form 2410

*a. Preparation*.



(1) When the NSN or PN of an uninstalled item changes because of an MWO/RSN, or other directive, the activity doing the maintenance on the reportable item shall complete the existing DA Form 2410 and prepare a new DA Form 2410.

(2) When the NSN or PN of an installed item changes because of an MWO/RSN or other directive, the activity doing the maintenance shall fill out the required DA Form 2410.

*b. Disposition.*

(1) Send the existing DA Form 2410 with the old NSN and/or PN in blocks 2 and 3 and new PN and/or NSN in blocks 36 and 37 to AMCOM after completion of the MWO/RSN.

(2) A copy of a DA Form 2410 with the new NSN and/or PN in blocks 2 and 3 remains with the item until installed.

(3) Preparation instructions (by block number and title) for DA Form 2410 for an NSN and/or PN change of an uninstalled item. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

*Note.* Complete the existing DA Form 2410 with an uninstalled item.

*Maintenance action.* Put a check mark or an X in the small box prior to the shaded gain/loss.

*Identification.* Blocks 1 through 21 should already be filled in.

*Next higher assembly (NHA) install/remove information.* No action required.

*Gain/loss/repair/admin information.*

34. *Inspection action codes.* Enter a check mark or an X in the small box in front of the MWO block.

35. *Gain or loss code.* Enter "M."

36. *New part number.* Enter the new part number that the item shall have after modification. If the PN does not change leave blank.

37. *New NSN.* Enter the new NSN that the item shall have after modification. If the NSN does not change, leave blank.

38 through 40. Leave blank.

41. *SRA.* If the modification is being done by a special repair activity enter "Y"; others, leave blank.

42. *UIC.* The unit identification code for the activity that determined the NSN and/or PN is to be changed. If a contractor, enter the CAGE code prefixed with a "K."

43. *Contract number.* Leave blank.

44. *Date.* Enter the date the action is completed.

45. *PID and phone number.* The person completing this form shall enter their first name, initial and last name, and telephone number (DSN/commercial).

46. *AKO user name.* The person completing this form shall enter their AKO user name. Leave blank if no AKO user name.

47 and 48. Leave blank.

*Remarks.* Provide any brief pertinent remarks for the NSN and/or PN change.

(4) Preparation instructions (by block number and title) for DA Form 2410 for an "S" gain for an NSN and/or PN change of an uninstalled item are listed below. Complete the existing DA Form 2410 with an uninstalled item.

*Maintenance action.* Put a check mark or an "X" in the small box prior to the shaded "Gain/loss."

*Identification.* Complete block 1 and blocks 4 through 21 by copying this information from the "M" Loss DA Form 2410.

2. *NSN.* Enter the new national stock number (block 37 of the M Loss DA Form 2410) if an MWO/RSN or other directive changed the NSN. If the NSN was not changed, enter the NSN from block 2 of the "M" Loss DA Form 2410.

3. *Part number.* The new part number (block 36 of the M Loss DA Form 2410) if an MWO/RSN or other directive changed the PN. If the PN was not changed, enter the PN from block 3, of the "M" Loss DA Form 2410.

*Next higher assembly (NHA) install/remove information.* No action required.

*Gain/loss/repair/admin information.*

34. *Inspection action codes.* Place a check mark or an 'X' in the small box next to the action code that applies. Do not enter a check mark or an 'X' by Overhaul if the item in block 1 is an RC or CC component.

35. *Gain or loss code.* Enter "S" after the MWO or other directive is applied.

36 and 37. Leave blank.

38. *Actual failure code.* Enter "801."

39. *Maintenance level.* The maintenance level ("F" for ASC, or "D" for depot) of the nit applying the MWO/RSN or other directive.

40. *Manhours.* The total man-hours, in hours and tenths, it took to do the work.

41. *SRA.* If the item in block 1 was modified/repared using a special repair authority from AMCOM enter "Y".

42. *UIC.* The unit identification code for the activity that performed the work. If a contractor enter the CAGE code prefixed with a "K."

43. *Contract number.* Leave blank.

44. *Date.* The date the repair or maintenance action was completed.

45. *PID and phone number.* The person completing this form will enter their first name, initial, and last name and telephone number (DSN/commercial) in this block.

46. *AKO user name.* The person completing this form will enter his or her AKO User Name. Leave blank if no AKO user name.

47 and 48. Leave blank.

*Remarks.* Enter any additional pertinent information related to the MWO/RSN or other directive. For OH-58D Side Beams or Transverse Roof Beams enter "ADJUSTED COMPONENT HOURS EQUAL XXXX." For T702-AD-700/700A/700B enter the total cycles. Submit the "M" Loss and "S" Gain to AMCOM. Update block 34 by entering a check mark or an 'X' in the small block prior to SERVICEABLE. Delete blocks 35 thru 46, print a copy of the DA Form 2410 to remain with the component/module until installed.

### 3-16. DA Form 2410

a. As used here, the term "controlled exchange" is any removal of a serviceable reportable component and module from one aircraft for installation on another aircraft. This is done within the same organization or in support of another organization.

b. When controlled exchange of a serviceable reportable item is necessary, prepare DA Form 2410. Make sure that you also update DA Form 2408-16 or DA Form 2408-16-1, to keep usage data current. Removal of an unserviceable component or module from an aircraft for installation on another aircraft is not allowed and is not considered a controlled exchange.

c. A DA Form 2410 removal is also required for the unserviceable component/module that the serviceable component is going to replace.

d. *Disposition.* Submit all completed copies of DA Form 2410 to AMCOM.

d. Preparation instructions (by block number and title) for DA Form 2410 when a serviceable reportable item is removed for controlled exchange. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

*Maintenance actions.* Put a check mark or an X in the small box prior to the shaded REMOVE.

#### *Identification.*

1. *Nomenclature.* Enter the item name.

2. *NSN.* Enter the national stock number of the item.

3. *Part number.* Enter the part number of the item.

4. *Serial number.* Enter the serial number of the item.

5. *MII.* Enter the maintenance inspection indicator (an inspection/procedure/modification code appended to the SN or an MII listed on the dataplate).

6. *Cage code.* Optional. Required only on DA Form 2410 gain copies.

7. *Landing.* For OH-58D side beams or transverse roof beams, enter the adjusted component landings. For OH-58D corner mounts or restraint spring assemblies, enter the total landings.

8. *NO. of prev O/Hs.* Enter the number of times that the item has been overhauled. Get this information from block 6d of the DA Form 2408-16.

9. *Time since last instl.* Enter the number of hours, to the nearest hour; the item has been operated since it was last installed. Get this information from DA Form 2408-16 by subtracting block 6e from 6f. For T700 series engines get this information from the DA Form 2408-16-1 by subtracting the total cumulative hours at installation from the total cumulative hours at removal. APUs without an installed hour meter enter zero. For AN/ALQ144, enter zero and the meter reading in block 13. For T55-GA-714A engine, HMA, Compressor Rotor Assembly, and Power Turbine Assembly, enter the operating hours since last installed. For T55-GA-714A components tracked by cycles, leave blank.

10. *Time since new.* Enter the total number of hours, to the nearest hour, that the item has been operated since it was new. Get this information from block 6i of the DA Form 2408-16. For T700 series engines, get this information from the DA Form 2408-16-1. APUs with an installed hour meter, enter the total hours since new. APUs without an installed hour meter, enter zero. For AN/ALQ144, enter zero. For T55-GA-714A engine, HMA, compressor rotor assembly, and power turbine assembly enter the total operating hours since new. For T55-GA-714A components tracked by cycles, enter the current total cycles.

11. *Time since O/H.* If the item has been overhauled before, enter the number of hours, to the nearest hour, that the item has operated since the last overhaul. Get this information from the DA Form 2408-16; subtract block 6e from 6f, then add block 6g. When the item has never been overhauled, enter zero. For APUs, enter zero.

12. *Failure code.* Enter "674."

13. *METER HRS.* Enter the hour meter reading for items designated by TB 1-1500-341-01 to be tracked using meter hours.

14. *HSF.* For T703 engines, enter the total number of hot section factors.

15. *WUC.* Enter the work unit code that applies.

16. *Config code.* Enter the applicable configuration code for this item found in the LIS Parts Master LCF.

17. *Component cumulative count/hours.* For T700 series engines, components/modules, and subcomponents, enter the total cumulative counts/hours for the item in block 1. This entry is also required for history recorders. Enter only operating hours for components/modules, entered on the reverse side of the engine DA Form 2408-16-1, that do not require a separate DA Form 2408-16-1. If the item is new, enter zero.

17a. *LCF 1.* For T700 series engines, components/modules, or subcomponents, enter the total cumulative LCF 1 counts.

17b. *LCF 2.* For T700 series engines, components/modules, or subcomponents, enter the total cumulative LCF 2 counts.

17c. *TTI.* For T700 series engines, components/modules, or subcomponents, enter the total cumulative TTI counts.

17d. *OP hours.* For T700 series engines, components/modules, or subcomponents, enter the total cumulative operating hours.

18. *Position.* Enter the position that the engine was installed in, number 1 for left engine or number 2 for right engine.

19. *Starts since new.* For APUs, enter the total starts since new.

20. *Starts since O/H.* For APUs, enter the number of starts since the last overhaul.

21. *Version.* Enter the version of the software installed for the item entered in block 1.

*Next higher assembly (NHA) install/removal information.*

22. *NHA nomenclature.* The next higher assembly, from which the item in block 1 was removed. This information is on the DA Form 2408-16, block 1, or DA Form 2408-16-1, block 3.

23. *NHA NSN.* The national stock number of the item in block 22.

24. *NHA part number.* The part number of the item in block 22.

25. *NHA serial number.* The serial number of the item in block 22.

26. *NHA hours.* If the next higher assembly is an aircraft, enter the current aircraft hours, to the nearest hour. When the item in block 22 is a component, enter the components operating hours since new. If the item in block 22 is a T55-GA-714A engine, HMA, compressor rotor assembly, and power turbine assembly, enter the total operating hours for the item.

27. *Start meter.* Enter the reading from the APU start meter at the time of APU removal. If the APU does not have a start meter, leave blank.

28. *Meter hrs.* Enter the reading from the APU or any other components tracked by an hour meter at the time of removal. Leave blank if not applicable.

29. *History recorder SN.* If a T700 series engine is entered in block 1 or block 22, enter the engine history recorder serial number. Leave blank if a history recorder is not used. Do not enter a history recorder serial number from a slave engine used for component or module testing.

30. *Malfunction code.* The malfunction effect code (table 1-8 or the front side of DA Form 2408) that most closely described the effect the malfunction had on the mission.

31. *When discovered.* The when discovered code (table 1-6) that identifies when the failure was first detected.

32. *History recorder reading.* If a T700 series engine is entered in block 1 or block 22, enter the current reading from the engine history recorder.

33. *NHA cumulative counts/hours.* Enter the total cumulative counts and hours since new for the T700 series engine, component or module entered in block 22. Obtain the total cumulative counts from the DA Form 2408-16-1 for the item. If a T700 series engine, component or module is not entered in block 22, leave blank.

*Gain/loss/repair/admin information.*

34. *Inspection action codes.* Put a check mark or an X in the small box prior to "Serviceable."

35 through 38. Leave blank.

39. *Maintenance level.* The Maintenance Level ("F" for Field, "D" for sustainment facility (depot)) of the unit/activity doing the removal.

40. *Manhours.* The man-hours it took to remove the item, in hours and tenths (see time conversion codes, table 1-14, at the end of chapter 1 or the backside of DA Form 2408).

41. *SRA.* Leave blank.

42. *UIC.* The unit identification code of the organization doing the installation. If a contractor, enter the CAGE code prefixed with a "K."

43. *Contract number.* Leave blank.

44. *Date.* The date the removal action was complete

45. *PID and phone number.* The individual completing the form shall enter their first name, initial, and last name and phone number (DSN/commercial). The phone number and name shall be used at the national level to clarify entries.

46. *AKO user name.* The individual completing the form shall enter his or her AKO user name. Leave blank if no AKO user name.

47 and 48. Leave blank.

*Remarks.* Enter any additional pertinent information. For OH-58D Side Beams or Transverse Roof Beams, enter "ADJUSTED COMPONENT HOURS EQUAL XXXX." For T703-AD-700/700A/700B, enter the total cycles. Submit the DA Form 2410 REMOVALS for the unserviceable and the serviceable component to AMCOM and complete a DA Form 2410 INSTALL and submit to AMCOM. Print a copy of the DA Form 2410 with the identification (blocks 1

through 21) data filled in and blocks 44 through 46 completed for the unserviceable component, and send the copy with the unserviceable component to be repaired.

### 3-17. DA Form 2410

#### a. Preparation.

(1) To report the loss of an item (installed or uninstalled) to the inventory, complete a DA Form 2410 GAIN/Loss.

(2) When the loss to the Army inventory is a result of conversion or redesignation of the item NSN and/or PN through modification, follow the procedures in paragraph 3-16.

(3) The mutilation statement required by TM 1-1500-328-23, Section IX, shall be in the REMARKS block. The statement must appear verbatim and all signatures required by TM 1-1500-328-23 must be in the REMARKS block. This also applies to electronically generated 2410s. In place of a signature, type your name.

b. *Disposition.* Submit the GAIN / LOSS DA Form 2410 to AMCOM. A copy of the form shall remain with the item until mutilation is complete then submitted with the mutilation statement to AMCOM.

c. Preparation instructions (by block number and title) for DA Form 2410 for loss to the Army inventory when a loss code of "D" or "J" is used. Normally a copy of a DA Form 2410 with the identification (blocks 1 through 21) completed shall be with an uninstalled item.

*Maintenance action.* Put a check mark or an X in the small box prior to the shaded gain/loss.

#### Identification.

1. *Nomenclature.* Enter the item name.

2. *NSN.* Enter the national stock number of the item.

3. *Part number.* Enter the part number of the item.

4. *Serial number.* Enter the serial number of the item. Do not enter more than one SN.

5. *MII.* Enter any maintenance inspection indicator (an inspection/procedure/modification code appended to the SN or other MII listed on the dataplate). Leave blank if not applicable.

6. *Cage code.* Optional. Required only on DA Form 2410 gain copies.

7. *NO. OF PREV O/Hs.* Enter the number of times that the item has been overhauled. Get this information from block 6d of the DA Form 2408-16. If the item has never been overhauled, enter zero. Leave blank for RC and CC items.

8. *LANDINGS.* Enter the total adjusted component landings for OH-58D Side Beams or Transverse Roof Beams. Enter the total landings for OH-58D Corner Mounts or Restraint Spring Assembly. Leave blank if not applicable.

9. *Time since last instl.* Enter the number of hours, to the nearest hour, that the item has been operated since it was last installed. Get this information from DA Form 2408-16 by subtracting block 6e from 6f. For T700 series engines get this information from the DA Form 2408-16-1 by subtracting the total cumulative hours at installation from the total cumulative hours at removal. For APUs without an installed hour meter enter zero (0). For AN/ALQ144 enter zero (0), enter the meter hours in block 13. For T55-GA-714A engine, compressor rotor assembly, and power turbine assembly enter the operating hours since last installed. For T55-GA-714A components tracked by cycles, leave blank

10. *Time since new.* Enter the total number of hours, to the nearest hour, that the item has been operated since it was new or rebuilt. Get this information from block 6i of the DA Form 2408-16. For T700 series engines, get this information from the DA Form 2408-16-1. For APUs with an installed hour meter, enter the total hours since new. For APUs without an installed hour meter, enter zero. For AN/ALQ144 enter zero. For T55-GA-714A engine, HMA, Compressor Rotor Assembly, and Power Turbine Assembly, enter the total operating hours since new. For T55-GA-714A components tracked by cycles, enter the current total cycles.

11. *Time since overhaul.* If the item has been overhauled before, enter the number of hours, to the nearest hour, that the item has operated since the last overhaul. Get this information from the DA Form 2408-16; subtract block 6e from 6f, then add block 6g. When the item has never been overhauled, enter zero. Leave blank for RC or CC items. For APUs, enter zero .

12. *Failure code.* Enter the appropriate failure code (see tables 1-2 and 1-3)

13. *Meter hrs.* Enter the hour-meter reading for items to be tracked using meter hours.

14. *HSF.* For T703 engines, enter the total number of hot section factors.

15. *WUC.* Enter the work unit code that applies.

16. *Config code.* Enter the applicable configuration code for this item, found in the LIS Parts Master LCF.

17. *Component cumulative count/hour.* For T700 series engines, components/modules, and subcomponents, enter the total cumulative counts/hours for the item in block 1. This entry is also required for history recorders. Enter only operating hours for components/modules, entered on the reverse side of the engine DA Form 2408-16-1, that do not require a separate DA Form 2408-16-1. If the item is new, enter zero.

17a. *LCF-1.* For T700 series engines, components/modules, or sub components, enter the total cumulative LCF 1 counts.

17b. *LCF-2.* For T700 series engines, components/modules, or sub components, enter the total cumulative LCF-2 counts.

17c. *TTI.* For T700 series engines, components/modules, or sub components, enter the total cumulative TTI counts.

17d. *OP hours.* For T700 series engines, components/modules, or sub components, enter the total cumulative operating hours.

18. *Position.* Enter the position that the engine was installed in, number 1 for left engine or number 2 for right engine.

19. *Starts since new.* For APUs, enter the total starts since new.

20. *Starts since O/H.* For APUs, enter the number of starts since the last overhaul.

21. *Version.* Enter the version of the software installed for the item entered in block 1.

*Gain/loss/repair/information.*

*Next higher assembly (NHA) install/remove information.* For items that are not installed on their NHA or if the NHA is an aircraft, leave blocks 22 through 33 blank.

34. *Inspection action code.* Enter a check mark or an X in the small box next to the appropriate corrective action (serviceable or unserviceable).

35. *Gain or loss code.* Enter the loss code (D or J) that best describes the reason for the loss.

36 through 38. Leave blank.

39. *Maintenance level.* Enter the level of maintenance ("F" for ASC or "D" for sustainment facility (depot) or higher level of repair).

40 and 41. Leave blank.

42. *UIC.* Enter the unit identification code of the activity completing the action in block 34. If a contractor, enter the CAGE code prefixed with a "K."

43. *Contract number.* Leave blank.

44. *Date.* Enter the date the item was shipped.

45. *PID and phone number.* The individual completing the form shall enter their first name, initial and last name and phone number (DSN/commercial).

46. *AKO user name.* The individual completing the form shall enter his or her AKO user name. Leave blank if no AKO user name.

47. *Lost/shipped to.* Enter the name of the DRMS that the item was shipped to.

48. *Location.* Enter the address of the activity identified in block 47.

*Remarks.* Enter the mutilation statement, verbatim, required by TM 1-1500-328-23 then sign and date the statement. For OH-58D Side Beams or Transverse Roof Beams, enter "ADJUSTED COMPONENT HOURS EQUAL XXXX." For T703-AD-700/700A/700B, enter the total cycles. Submit to AMCOM. Print a copy of the DA Form 2410 and attach to the DA Form 2408-16 or DA Form 2408-16-1 (if applicable) which shall remain with the item when shipped to DRMS.

### **3-18. Materiel condition tags and/or labels on uninstalled aviation equipment and aviation associated equipment**

a. *Purpose.* DOD materiel condition tags/labels (described in the paras 3-20 through 3-24) are used to show the identity and condition of Army parts, components, assemblies, kits, special tools, ground handling, and support equipment, UAS, and other items used in aircraft units to accomplish operational missions. The DOD tags/labels are used along with the other forms, records, and tags (see app A) described in this pamphlet and TM 1-1500-328-23.

b. *Use.*

(1) Completed materiel condition tags/labels shall be securely attached to all uninstalled or stored aeronautical and air delivery items. When items are packaged or stored in a container, attach a duplicate tag/label to the outside of the container. Use waterproof black ink on materiel condition tags/labels. Make sure the tag shall be protected during handling operations or while exposed to outside elements, such as sun, rain, snow, sand, and so forth. No substitute shall be used when a materiel condition tag/label is required. Clear (see-through) preprinted labels may be used on materiel condition tags and labels.

(2) When serviceable components; such as, seats, panels, and stanchions, are removed from the aircraft and temporarily stored to facilitate maintenance, a DD Form 1574 (Serviceable Tag-Materiel), does not need to be completed for each item. A plain manila tag may be used to mark these items. Each tag must have, as a minimum, the last three digits of the aircraft serial number entered on the tag. This does not delete the requirement to tag unserviceable items, items in storage, or items turned into supply activities.

(3) Attach a completed materiel condition tag/label to all items sent out for repair or modification as well as items turned in for special inspections; for example, survival kits, anti-exposure coveralls, helmets and oxygen mask.

(4) Materiel condition tags/labels are not needed for small common hardware items in a serviceable condition.

(5) Separate parts of assemblies that are listed as single items of supply shall be tagged when separated from the major assembly.

c. Items needing DOD materiel tags and labels include the following:

(1) All new and used items listed in TB 1-1500-341-01/LIS Parts LCF that require reporting on DA Form 2410.

(2) All uninstalled serviceable items (not in original, unopened, manufacturer's package).

(3) All uninstalled unserviceable items.

- (4) All items that show signs of corrosion or deterioration.
- (5) All items that have latent defects.
- (6) Aviation associated equipment that becomes unserviceable.
- (7) All items that require nondestructive testing.
- (8) All items for which the condition or identification has been changed—
  - (a) By direction of higher authority.
  - (b) As a result of in-storage inspections.
  - (c) As required by MWOs/RSNs, TBs, SOF messages, ASAMs, or AMAMs.
  - (d) As required by technical publication changes.
  - (e) If aeronautical equipment identification is lost or defaced.

*Note.* Authority for, and the use of, a rubber stamp for overprinting data in the REMARKS block of tags/labels is a local option. When the DD Form 1576 (Test/Modification Tag–Materiel) or DD Form 1576–1 (Test/Modification Label–Materiel) is used, enter remarks on the back of the form.

*d.* The authorized inspector's signature or stamp on the form certifies the item's condition; therefore, the inspector must make sure that the item is properly identified and the information on the tag/label is legible and correct before they sign.

*e.* Property officers, unit commanders, or designated representatives shall ensure that returns are not accepted from supported units unless the items are properly tagged/labeled. Maintenance units and supply activities receiving returns from supported units shall ensure the data on the tag and/or label is correct. When an item is found to be repairable, the inspector must certify that the item is or is not repairable on-site. The inspector's certification, his or her signature or stamp, the unit identification, and the date of signature shall go in the Remarks Block of the tag/label.

*f.* Items for transfer to the DRMS shall be tagged to show the actual condition of the item.

*g.* Along with the materiel condition tags and/or labels, a data plate shall be affixed to all aircraft instruments overhauled, repaired, or modified at Army facilities and contract maintenance support activities to identify the overhaul facility, date of overhaul, and output part number. A locally manufactured data plate from aluminum foil tape (Federal Specification LT80), a suitable substitute tape, or a heat and grease resistant decal may be used. The data plate/decal shall be marked using figures and lettering of 1/8-inch minimum height. The minimum available area on the instrument case shall determine size of data plate and/or decal. Data plate and/or decal shall be placed as near the manufacturer's data plate as space permits. Stamping of the instrument or on the installed data plate and/or decal is prohibited.

### 3–19. Supply condition codes

*a.* Supply condition codes are used to classify materiel. They identify—

- (1) The degree of serviceability, condition, and completeness in terms of readiness for issue and use.
- (2) Actions underway to change the status of the materiel.

*b.* Appendix C lists the supply condition codes needed to prepare the materiel condition tags/labels covered in this manual. Refer to AR 725–50 for a full explanation of these condition codes.

### 3–20. DD Form 1574 and DD Form 1574–1

*a. Purpose.* DD Form 1574 and DD Form 1574–1 are used to identify serviceable materiel—

- (1) Condition Code A: Serviceable (issuable without qualification).
- (2) Condition Code B: Serviceable (issuable with qualification).
- (3) Condition Code C: Serviceable (priority issue).

*b. Disposition.* Dispose of these forms as directed by the unit and/or activity QC supervisor. Any DD Form 1574 or DD Form 1574–1 attached to an empty reusable container shall be removed and destroyed before the container is reused. When ASC units use this form to identify serviceable Aviation Night Vision Goggles, destroy the tag after the DA Form 2408–30 (NVG Inspection and Maintenance Record) has been updated. Preparation instructions (by block title) for DD Form 1574 and DD Form 1574-1 are listed below.

*FSN, part no. and item description.* NSN, part number, and item name.

*Next inspection due/overdue date.* Date the next inspection is due or the item becomes outdated.

*Condition code.* Enter the condition code that applies (see app C).

*Inspection activity.* Enter the name and UIC of the activity that certified the item's condition. If a contractor, enter the proper CAGE code preceded with the letter "K."

*Serial no./lot no.* Enter the item's serial number or, if the item is bulk (for example, cord, webbing, and rubber), the lot number.

*Unit of issue.* Unit of Issue; for example, each (ea), gross (gr), pound (lb), and dozen (dz).

*Contract or purchase order no.* Contract number found on the item data plate, or purchase order number. If you cannot find the contract or purchase order number, enter "UNK."

*Quantity.* The number of items this tag/label represents.

*Inspector's name or stamp and date.* The inspector appointed by the commander shall type, print, sign, or stamp and

date this block after they inspect the item and certify the condition. For nonmilitary activities, the person certifying the condition of the item shall type, print, sign or stamp and date this block.

*Remarks.* For TC, RC, and CC components listed in TB 1-1500-341-01/LIS Parts Master LCF, enter the following data: time since new, time since last overhaul/rebuild, and number of previous overhauls/rebuilds (Round operating time to the nearest hour. Obtain the information from DA Form 2410, DA Form 2408-16, or DA Form 2408-16-1). Enter action taken to make the item serviceable, or other information that shall help in management of aviation, UAS, and aviation-associated equipment. For example, 30-day PMCS due 25 September 2009; 90-day purge due 24 November 2009; and collimation due 22 February 2009, for night-vision goggles (NVG).

### **3-21. DD Form 1575 and DD Form 1575-1**

*a. Purpose.* DD Form 1575 (Suspended Tag-Materiel) and DD Form 1575-1 (Suspended Label-Materiel) are used to identify suspended materiel—

- (1) Condition Code J—suspended (in stock).
- (2) Condition Code K—suspended (returns).
- (3) Condition Code L—suspended (litigation).
- (4) Condition Code M—suspended (in work).
- (5) Condition Code N—suspended (ammunition suitable for emergency combat use only).
- (6) Condition Code Q—suspended (quality deficiency report).
- (7) Condition Code R—suspended (reclaimed items, awaiting condition determination).

*b. Disposition.* Dispose of these forms as directed by the unit/activity QC supervisor. Any DD Form 1575 or DD Form 1575-1 attached to an empty reusable container shall be removed and destroyed before the container is reused. Preparation instructions (by block title) for DD Form 1575 and DD Form 1575-1 are listed below.

*NSN, part no. and item description.* National stock number, part number, and item name.

*Next inspection due.* Date the next inspection is due, or the item becomes outdated. If it does not apply, leave blank.

*Condition code.* Enter the condition code that applies (see app C).

*Inspection activity.* Enter the name or UIC of the activity that certified the item's condition. If a contractor enter the proper CAGE code preceded by the letter "K."

*Reason or authority.* Enter the reason or authority for item suspension (example, awaiting condition classification).

*Serial number/lot number.* Serial number, or if the item is bulk (for example, cord, webbing, and rubber), enter the lot number.

*Unit of issue.* Unit of issue, for example, each (ea), gross (gr), pound (lb), and dozen (dz).

*Contract or purchase order no.* Contract number, found on the item data plate, or the purchase order number. If you cannot find the contract or purchase order number enter "UNK."

*Quantity.* The number of items this tag/label represents.

*Inspector's name or stamp and date.* The inspector appointed by the commander shall type, print, sign or stamp and date this block after they inspect the item and certify the condition. For nonmilitary activities, the person certifying the condition of the item shall type, print, sign or stamp and date this block.

*Remarks.* For "TC," "RC," and "CC" components listed in TB 1-1500-341-01/LIS Parts Master LCF, enter the following data: time since new, time since last overhaul/rebuild, and number of overhauls/rebuilds (Round operating time to the nearest hour. Obtain the information from the DA Form 2410, DA Form 2408-16, or DA Form 2408-16-1).

### **3-22. DD Form 1576 and DD Form 1576-1**

*a. Purpose.* DD Form 1576 (Test/Modification Tag-Materiel) and DD Form 1576-1 (Test/Modification Label-Materiel) are used for the following:

- (1) To identify materiel in condition code "D," Serviceable (test/modification).
- (2) To identify AOAP exhibits being returned to a sustainment facility (depot) level maintenance activity for consideration for teardown analysis.
- (3) By ASC units to identify aviation NVG requiring a distortion evaluation after completion of maintenance.
- (4) To identify items that requires nondestructive testing (NDT).

*b. Disposition.* Dispose of these forms as directed by the unit/activity QC supervisor. Any DD Form 1576 or DD Form 1576-1 attached to any empty reusable container shall be removed and destroyed before the container is reused. When used for aviation NVG, destroy this form after a successful distortion evaluation has been completed and documented. Preparation instructions (by block title) for DD Form 1576 and DD Form 1576-1.

*FSN, part no. and item description.* National stock number, part number, and item name.

*CONDITION CODE.* Condition code "D" (see app C).

*Authority.* Enter the MWO/RSN, SOF Message, TB number, or AOAP laboratory recommendation number. When an

ASC unit repairs aviation NVG and replaces the image intensifier tube(s), enter the remark "Distortion evaluation is required prior to use."

*Date.* Enter the date of the MWO/RSN, SOF Message, TB, or AOAP laboratory recommendation.

*Serial number/lot number.* The serial number, or if the item is bulk (for example, cord, webbing, and rubber), enter the lot number.

*Unit of issue.* The unit of issue (for example, each (ea), gross (gr), pound (lb), and dozen (dz)).

*Quantity.* The number of items this tag or label represents.

*Contract or purchase order no.* The contract number, found on the item data plate, or purchase order number. If you cannot find the contract or purchase order number, enter "UNK."

*Inspection activity.* Enter the name or UIC of the activity that certifies the item's condition. If a contractor enter the proper CAGE code preceded by the letter "K."

*Inspector's name or stamp and date.* The inspector appointed by the Commander shall type, print, sign or stamp and date this block after the item's condition is inspected and certified. For nonmilitary activities, the person certifying the condition of the item shall type, print, sign or stamp and date this block. For "TC," "RC," and "CC" components listed in TB 1-1500-341-01/LIS Parts Master LCF enter the following data on the back of the tag: Time Since New, Time Since Last Overhaul and/or Rebuild, and number of overhauls and/or rebuilds (Round operating time to the nearest hour. Get this information from DA Form 2410, DA Form 2408-16, or DA Form 2408-16-1).

### **3-23. DD Form 1577 and DD Form 1577-1**

*a. Purpose.* DD Form 1577 (Unserviceable (Condemned) Tag-Materiel) and DD Form 1577-1, Unserviceable (Condemned) Label-Materiel) are used to identify condemned materiel—

(1) Condition code H: Unserviceable (condemned).

(2) Condition code S: Unserviceable (scrap).

*b. Disposition.* Dispose of these forms as directed by the unit/activity QC supervisor. Remove and destroy any DD Form 1577 or DD Form 1577-1 attached to an empty reusable container before the container is reused. Preparation instructions (by block title) for DD Form 1577 and DD Form 1577-1 are listed below.

*NSN, part no. and item description.* National stock number, part number, and item name.

*Inspection activity.* Enter the name or UIC of the activity that certifies the item's condition. If the activity is a contractor enter the proper CAGE code prefixed with the letter "K."

*Condition code.* Enter condition code that applies (see app C).

*Reason or authority.* The reason or authority for condemnation of the item (for example, rotor blade spar cracked).

*Serial number/lot number.* The serial number, or if the item is bulk (for example, cord, webbing, and rubber), enter the lot number.

*Unit of issue.* The unit of issue (for example, each (ea), gross (gr), pound (lb), and dozen (dz)).

*Quantity.* The number of items this tag or label represents.

*Inspector's name or stamp and date.* The inspector appointed by the Commander shall type, print, sign or stamp and date this block after they inspect and certify the item's condition. For nonmilitary activities, the person certifying the condition of the item shall type, print, sign or stamp and date this block.

*Remarks.* Enter a statement that the item has been condemned, and requires mutilation in accordance with TM 1-1500-328-23 or mutilated per TM 1-1500-328-23. For "TC," "RC," and "CC" components listed in TB 1-1500-341-01/LIS Parts Master LCF, enter the following data on the back of the tag: Time Since New, Time Since Last Overhaul/Rebuild, and number of overhauls/rebuilds (Round operating time to the nearest hour. Get this information from DA Form 2410, DA Form 2408-16, or DA Form 2408-16-1).

### **3-24. DD Form 1577-2 and DD Form 1577-3**

*a. Purpose.* DD Form 1577-2 (Unserviceable (Reparable) Tag-Materiel) and DD Form 1577-3 (Unserviceable (Reparable) Label-Material) are used to identify unserviceable materiel:

(1) Condition Code E: Unserviceable (limited restoration).

(2) Condition Code F: Unserviceable (reparable).

(3) Condition Code G: Unserviceable (incomplete).

(4) Condition Code P: Unserviceable (reclamation).

(5) Condition Code W: Unserviceable (warranted reparable).

*b. Disposition.* Dispose of these forms as directed by the unit/activity QC supervisor. Remove and destroy any DD Form 1577-2 or DD Form 1577-3 attached to an empty reusable container before the container is reused. Preparation instructions (by block) for DD Form 1577-2 and DD Form 1577-3 are listed below.

*FSN, part no. and item description.* The national stock number, part number, and item name.

*Inspection activity.* Enter the name or UIC of activity that certified the item's condition. If it is a contractor, enter the proper CAGE code prefixed by the letter "K."



*Condition code.* The condition code that applies for reparable items (see app C).

*Reason for reparable condition.* The reason for reparable condition (for example, leaks fluid).

*Serial no./lot no.* The serial number or, if the item is bulk (for example, cord, webbing, and rubber), enter the lot number.

*Unit of issue.* The unit of issue (for example, each (ea), gross (gr), pound (lb), and dozen (dz)).

*Removed from.* Enter the aircraft MDS and serial number from which the item was removed. When the item is removed from a component/module or part, enter the model and serial number of the component/module or part.

*Contract or purchase order no.* Enter the contract number, found on the item data plate, or purchase order number. If you cannot find the contract or purchase order number, enter "UNK."

*Quantity.* The number of items this tag or label represents.

*Inspector's name or stamp and date.* The inspector appointed by the Commander shall type, print, sign or stamp and date this block after they inspect and certify the item's condition. For nonmilitary activities, the person certifying the condition of the item shall type, print, sign, or stamp and date this block.

*Remarks.* You must fill out this block for "TC," "RC," and "CC" components listed in TB 1-1500-341-01/LIS Parts Master LCF. Enter the Time Since New, Time Since Last Overhaul/Rebuild, number of overhauls/rebuilds and actions taken to make the item serviceable. Enter SOF Messages, ASAMs, AMAMs or TBs on all items, including nonreportable items. Indicate whether item is or is not NRTS (see table 1-17 for NRTS codes). Enter inspector's name, date, and unit or inspector's stamp and date.

## **Chapter 4 Historical Forms and Records**

### **4-1. General-historical forms**

a. Historical records are kept on specific aircraft, UAS subsystems, components and/or modules, accessories, and mission-essential equipment aboard aircraft. They show historical information and events in the life cycle of the aircraft, UA, UAS subsystems, and aviation-associated equipment.

b. The records must be controlled and protected from loss or damage due to fire, smoke, or water by aviation and UAS maintenance personnel in the field, ASC and/or STB, sustainment facility (depot) and supply activities that operate, maintain, and store aircraft, UA, UAS subsystems, aviation associated equipment, and reportable components and/or modules. Historical records accompany aviation equipment and parts from unit to unit, and organization to organization. Aviation equipment and parts are intensively managed and requires detailed and specific life cycle historical information.

c. These records give commanders and maintenance managers information on equipment transfers, gains, losses, usage, firing data, modifications, overhauls, recap, accidents/mishaps, and AOAP results.

d. Never start a form unless an old form has been used up and/or an action requires an entry on a specific form and there is no form for the component.

e. Historical records may be generated electronically by the Army LIS Program, the AMCOM MCDS; or DA electronic forms (listed in app A) may be filled out manually with a computer or black ballpoint pen.

### **4-2. Missing historical records or information**

When aircraft, UAS subsystems, aviation associated equipment, or serialized reportable components and/or modules are received without maintenance and historical records called for in appendix D, the Army aviation or UAS unit or contract support activity that receives the component and/or module shall take the following action:

a. Request missing records from the transferring or shipping activity.

b. When missing records or information are not available from the transferring or shipping activity, try to obtain the information from local sources; for example, DD Form 1574 and/or DD Form 1574-1, or other materiel condition tags and labels covered in chapter 3.

c. Prepare new maintenance and historical forms per procedures in chapters 3 and 4 once the missing information is obtained.

d. When paragraphs 4-2a and b do not produce the needed information, request the DA Form 2410 usage data from Commander, AMCOM (AMSAM-MSI-L (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898-5000. Give complete description, to include PN and serial number, whether the item is serviceable or unserviceable, installed or uninstalled, and if installed the next higher assembly serial number and state the records or information needed. You may access MCDS on the TAMMS-A Portal Home Page (<https://tammsa.redstone.army.mil>) or contact the DA Form 2410 hotline (DSN 897-2410, commercial (256) 313-2410); fax (DSN 746-4904, commercial (256) 876-4904); or e-mail (usarmy.redstone.usamc.mbx.immc-data2410@mail.mil).

*Note.* Do not open packages, cartons, or containers containing aircraft components/modules that are preserved for shipment or storage merely to complete or check/inspect historical records.

#### **4-3. DA Form 2408-5**

*a. Purpose of DA Form 2408-5.* DA Form 2408-5 (Equipment Modification Record) records the requirement for and the application of all authorized DA modifications and software version changes to the aircraft, UAS subsystems, ANVIS, and aircraft training devices and/or simulators listed in appendix D.

*Note.* DA Form 2408-5 shall not be used to record aircraft, UA, or UAS subsystems, ANVIS, SOF or SOU messages, ASAMS, or AMAMs. They are recorded on a DA Form 2408-15 or DA Form 2408-5-1.

*b. Use.* A permanent record to document all modifications and software version changes for aircraft, UAS subsystems, ANVIS and aircraft training devices and/or simulators.

*c. General instructions.*

(1) Entries shall be made on DA Form 2408-5 when an MWO/RSN is received that is applicable to the aircraft, and UAS subsystems or ANVIS. If you learn that a MWO/RSN has been issued for the aircraft, or UAS subsystems or ANVIS and was not applied, enter the MWO/RSN requirement on this form.

(2) MWO and/or RSNs applied to aircraft, or UAS subsystems or ANVIS shall normally be accomplished by sustainment facility (depot) level maintenance activities, such as, FSRD contract field team, UAS-PM contract logistics support team, Corpus Christi Army sustainment facility (depot), or contract maintenance activities performing overhaul/repair. The unit/activity responsible for the modification shall complete the MWO/RSN entry when the MWO/RSN is applied.

(3) (MWO/RSN entries shall be kept current. The DA Form 2408-5 is the only historical record that shows the current status of MWOs/RSNs for the aircraft, UAS subsystems, ANVIS or training device/simulator. Complete the actions below for the conditions and situations described.

*(a)* An MWO/RSN that supersedes a previous MWO/RSN. If the previous MWO/RSN has been applied, compare it to the new MWO/RSN to determine if additional work is required.

1. If additional work is required enter "Superseded by (MWO/RSN number)" in block 9, and enter the new MWO/RSN information on the form.

2. If no other work is needed, enter the replacing modification information on the next open line and enter "PCW" in block 11. The organization, AKO user name or first name, initial and last name of the person who determined the MWO/RSN was already complied with, and date shall be entered in blocks 10, 11, and 12.

3. If the superseded MWO/RSN has not been applied, line out the replaced MWO/RSN entry and enter "Superseded by (MWO/RSN number)" in block 9. Enter the replacing MWO/RSN in the next open line completing blocks 8 and 9. The rest of the blocks shall be completed when the MWO/RSN is applied.

*(b)* Canceled MWO (see AR 750-10).

1. If the canceled MWO has already been completed, take no further action. These entries will serve as historical events.

2. If the canceled MWO was never entered on the form, do not enter it on the form.

3. If the canceled MWO/RSN was entered on the form but has not been completed enter "CANCELED" in block 9 and complete blocks 10, 11, and 12.

*Note.* A report of MWO/RSN application should be submitted on a DA Form 2407.

*(c)* If it is determined that a current MWO/RSN has been applied, but not recorded on DA Form 2408-5, take the actions below.

1. Enter the MWO/RSN Number, Date, Priority, and MWO/RSN Title from the MWO/RSN in blocks 8 and 9.

2. Enter the organization, and AKO user name or first name, initial and last name of the person who determined that the MWO/RSN was applied, in blocks 11 and 12.

3. Enter the date that the owning unit/activity found the MWO/RSN was applied, in block 10. Enter "previously complied with" above the date.

4. Enter the estimated man-hours, shown in the MWO/RSN, in block 13.

*(d)* If it is determined that a MWO/RSN has not been applied but is recorded as applied, draw a single line through the entry.

*(e)* If an unapplied MWO/RSN is recorded, but not applicable to the aircraft in the present unit or location, enter "N/A this (location or mission)" (paper forms use a black lead pencil in block 11).

*d. Disposition.*

(1) Do not destroy. The DA Form 2408-5 is a permanent record for the aircraft, UA, and UAS sub-systems or ANVIS.

(2) If the aircraft, UAS subsystems, or ANVIS is transferred to another unit or activity the DA Form 2408-5 shall be shipped with the UAS subsystems, aircraft or ANVIS file. Preparation instructions (by block number and title) for

DA Form 2408-5 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

#### 4-4. DA Form 2408-5-1

*a. Purpose.* DA Form 2408-5-1 (Equipment Modification Record (Component)) shows historical information, SOF messages/ASAMs/AMAMs, UAS-PM field notices, one-time inspections, and MWOs/RSNs and SCPs on serialized reportable components/modules listed in TB 1-1500-341-01/LIS parts master LCF.

*b. Use.* The form is a permanent historical record for serialized reportable components/modules used on aircraft, UA, UAS subsystems, and aviation equipment listed in appendix D. It is imperative that this form is safe guarded and remains with the component for its life. This form is the record of SOF, ASAMs, AMAMs, or UAS-PM field notices applied to the component and other pertinent historical information. Loss of this record shall create many man-hours in redoing the work and trying to find the lost information.

*c. General instructions.*

(1) Entries shall be made on DA Form 2408-5-1 when an MWO/RSN or SCP, SOF message, ASAM, AMAM, one-time inspection, UAS-PM field notice or any historical event is received and/or completed. If you learn that a MWO/RSN, SOF message, ASAM, AMAM, UAS-PM field notice or one-time inspection has been issued on serialized reportable components/modules and was not applied, enter the requirement on this form.

(2) SOF message, ASAM, AMAM, MWO/RSN, SCP, UAS-PM field notice, and one-time inspection entries shall be kept current. This is the only historical record the owning unit has that shows the current configuration of reportable component(s)/module(s).

(3) SOF messages, ASAMs, AMAMs, UAS-PM field notices, one-time inspections, SCPs and MWOs/RSNs applied to reportable components are done at all levels of maintenance. The maintenance activity that applies the SOF, ASAM, AMAM, UAS-PM field notice, one-time inspection, SCP or MWO/RSN shall annotate the current form or start a new form.

(4) A SOF message, ASAM, AMAM, UAS-PM field notice, one-time inspection, SCP or MWO/RSN that supersedes a previous SOF message, ASAM, AMAM, UAS-PM field notice, one-time inspection, SCP or MWO/RSN. If the previous directive has been applied, compare it with the new directive to determine if more work is needed.

(a) If more work is needed, line out the old directive entry, enter "Superseded by (number only)" in block 4, and enter the new directive on the form.

(b) If no other work is needed, line out the replacing directive entry and enter "previously complied with" in block 6. The organization, AKO user name or first name, initial and last name of the person who determined the directive was already applied, and date shall be entered in block 6, 7, and 8.

(c) If the superseded directive has not been applied, line out the directive that was replaced and enter "Superseded by (number only)" in block 4. Enter the replacing directive in the next open line completing blocks 4 and 5. The rest of the blocks shall be completed when the directive is applied.

(d) Take the following action if an SOF message, ASAM, AMAM, UAS-PM field notice, one-time inspection or MWO/RSN has been cancelled:

1. If the canceled directive has been completed, take no further action. These entries will serve as historical events.
2. If the canceled directive was never entered on the form do not enter it on the form.
3. If the canceled directive was entered on the form but has not been completed enter "CANCELED" in block 4 and complete blocks 6, 7, and 8.

*Note.* A report of SOF message, ASAM, AMAM, UAS-PM field notice and one-time inspection application should be submitted per the directive. MWO/RSN application should be submitted on a DA Form 2407.

(e) If it is determined that a SOF message, ASAM, AMAM, UAS-PM field notice, one-time inspection, or MWO/RSN has been applied, but not recorded on DA Form 2408-5-1, take the actions below:

1. Enter the data from the directive in blocks 4 and 5.
2. Enter the organization, and AKO user name or first name, initial and last name of the person who determined that the directive was applied, to blocks 6 and 7.
3. Enter the date that the owning unit/activity found the directive was applied, to block 8. Enter "PCW" above the date.
4. Enter the estimated man-hours shown in the directive to block 9.

(f) If it is determined that a SOF message, ASAM, AMAM, UAS-PM field notice, one-time inspection, or MWO/RSN has not been applied but is recorded as applied, draw a single line through the entry.

*e. Disposition.*

(1) DA Form 2408-5-1 is a permanent historical record for the reportable component/module maintain for the life of the component/module.

(2) If the reportable component/module is transferred to another unit or maintenance activity, the DA Form 2408-5-1 must be shipped with the component/module. For reportable components/modules installed on an aircraft or UAS

subsystems that is transferred to another unit or activity, the DA Form 2408-5-1 shall be shipped with the aircraft or UAS subsystems file.

(3) When serviceable repairable components/modules are removed from aircraft, UAS subsystems, or associated aviation equipment, the DA Form 2408-5-1 shall be placed in a protective cover and attached to the component/module.

(4) When components/modules are installed on aircraft or UAS subsystems, the DA Form 2408-5-1 shall be in the aircraft or UAS subsystems historical file. Preparation instructions (by block number and title) for DA Form 2408-5-1 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. Page \_\_\_\_ of \_\_\_\_ . Enter the page number and the total number (black lead pencil) of pages.

#### **4-5. DA Form 2408-15**

*a. Purpose.* DA Form 2408-15 (Historical Record for Aircraft) provides historical data on the aircraft or UAS subsystems, or ANVIS throughout its service life.

*b. Use.*

(1) This form is used for aircraft, UAS sub-systems, ANVIS and training devices/simulators identified in appendix D, to record significant historical data such as—

(a) Overhaul, conversions, or major repairs.

(b) Accomplishment of SOF or SOU messages, ASAMs, AMAMs, AWRs, SCPs, and/or UAS-PM field notices on the aircraft, UA airframe, ANVIS and related systems.

(c) Scheduled inspections such as phase or PMS or PMI. For example, Phase #2 Inspection completed at 2029 acft hrs, F CO 227th, Ft. Hood, TX.

(d) Accidents, mishaps, rotor over speed, rotor blade strikes, hard landings, and related follow-on special inspections called for in the applicable TM 23 series for aircraft or TM -20 series for UAS.

(e) Other information that is considered to be of significant historical value and serve as a useful purpose to activities receiving the aircraft, UAS, or ANVIS for operation, maintenance, overhaul, or recap; for example, "aircraft or UAS flown through contaminated area," or "aircraft or UAS exposed to salt water or salt water spray."

(f) Aircraft condition evaluation and critical inspection results and findings.

(g) To record the replacement of image intensifier tube(s) and the new serial number of the replacement tube(s).

(h) To record light interference filter (LIF) kit installation.

*Note.* If the ANVIS is received from the factory with the LIF installed, this entry is not required.

(2) This form stays with an aircraft, UAS subsystems, ANVIS, or maintenance training airframe from its induction into the Army inventory to its disposal.

*c. Disposition.*

(1) If the aircraft, UAS subsystems, or ANVIS is transferred to another unit or activity the DA Form 2408-15 shall be shipped with the aircraft, UAS subsystems or ANVIS file. The QC Section must check the form for accuracy and completeness before the aircraft, UAS sub-systems, or ANVIS is transferred..

(2) When an aircraft, UAS sub-systems or maintenance training airframe is dropped from accountability, transfer the forms and records per chapter 1, including the DA Form 2408-15, to Commander, AMCOM, AMSAM-MSI-LM (CDRA), Redstone Arsenal, Huntsville, AL 35898-5000.

(3) When the ANVIS are determined to be nonrepairable the form shall be destroyed. Preparation Instructions (by block number and title) for completing a DA Form 2408-15 (Historical Record for Aircraft) are listed below. Page \_\_\_\_ of \_\_\_\_ . Enter the page number and the total number (black lead pencil) of pages. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

1. *Aircraft model.* Enter the aircraft mission, design, and series, or the UAS designator, or the model of the ANVIS.

2. *Nomenclature.* Enter the item name.

3. *Aircraft serial number.* Enter the UAS, or aircraft (seven numeric digits), or ANVIS serial number.

4. *Remarks.*

*a.* Record any significant historical data about the airframe, UA and UAS ground control equipment, or ANVIS.

*b.* The historical data entries should include complete data on SOF or SOU messages, ASAMs, AMAMs, UAS-PM Field Notices, One-time Inspections for airframe or UAS items, scheduled inspections; such as, Phase or PMI, or PMS, major repairs, conversions, overhauls, total UAS or aircraft flying/operating hours at completion of recap, replacement of image intensifier tubes with serial numbers, and installation of the LIF kit when install on ANVIS.

*c.* If the aircraft or UAS was involved in an accident, provide complete details, including date, total aircraft or UAS operating/flying hours, organization, and the cause and results, if known.

*d.* When aircraft or UAS are removed from U.S. Army accountability, provide a close out statement verifying all items on DA Form 2408-16 and/or DA Form 2408-16-1 are installed or lined out if they have been removed.

*e.* LIS users must make an entry showing the date and time the conversion process was completed.

5. *Organization location.* Enter the name of the unit/organization, and location of the unit that inspected, repaired, recapped or overhauled the aircraft, UA, UAS ground control equipment, or ANVIS.

6. *Date.* Enter the date the action was completed.
7. *Entry number.* Leave this block blank for manual recordkeeping system.
8. *PID.* The person who verifies the maintenance action was completed or makes an entry will enter their automated PID or AKO User Name. Compliance of SOF or SOU messages, ASAMs, AMAMs, UAS-PM Field Notices and one-time inspections on reportable components/modules will be recorded on individual component/module DA Form 2408-5-1.

#### **4-6. DA Form 2408-15-2**

*a. Purpose.* DA Form 2408-15-2 (Aircraft Vibration Record) provides a visual record of the results of all vibration tests done on Army helicopter component drive shafts. This form is designed to record vibration tests at the lateral, longitudinal, and vertical axis for one or more component drive shafts.

*b. Use.* This form is used to—

- (1) Record vibration test results in inches per second (IPS) for component drive shaft frequencies for the lateral, longitudinal, and vertical axis.
- (2) Record other significant historical information and actions taken to reduce vibration; such as rotation of number 2 cross shaft 90 degrees clockwise, or replacement of components and repair parts.
- (3) Provide reliability centered maintenance data to the wholesale maintenance operations for possible improvement of equipment and maintenance procedure.

*c. Disposition.*

(1) If the aircraft is transferred to another unit or activity the DA Form 2408-15-2 shall be shipped with the aircraft file. The QC Section must check this form for accuracy and completeness before the aircraft is transferred.

(2) When the DA Form 2408-15-2 has both sides completely filled out, a new form shall be prepared. Retain the old form in the historical records until the first vibration check is entered on the new form. Then attach the old form to the Flight Pack last filed in the aircraft 6-month file. Dispose of the form per the disposition instructions for DA Form 2408-13-1. Preparation instructions (by block number and title) for DA Form 2408-15-2 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. Page \_\_\_\_ of \_\_\_\_ . Enter the page number and the total number (black lead pencil) of pages.

1. *Aircraft model.* Enter the aircraft mission, design, and series.

2. *Nomenclature.* Enter the item name.

3. *Aircraft serial number.* Enter the aircraft serial number (seven numerical digits).

4. *IPS readings.*

*a. Date.* Enter the date when the vibration test(s) were done.

*b. AC hrs.* Enter the aircraft operating hours, in hours and tenths. Aircraft operating hours can be found on the current DA Form 2408-13, block 11, FLIGHT DATA.

*c. Shaft.* Enter the name of each component drive shaft that the vibration tests are done on.

*d. Lateral.* Enter the IPS reading taken for the lateral axis.

*e. Longitudinal.* Enter the IPS reading taken for the longitudinal axis.

*f. Vertical.* Enter the IPS reading taken for the vertical axis.

*g. Reason for vibration check.* Enter the reason(s) for the vibration test/check; for example, scheduled 25 hour vibration test, 100 hour requirement, maintenance work, or component replacement.

5. *Remarks.* Enter the date, other significant historical data and/or actions taken to reduce vibration, AKO user name or first name, initial and last name, organization, and location.

#### **4-7. DA Form 2408-16**

*a. Purpose.* DA Form 2408-16 (Aircraft Component Historical Record) provides a permanent record of historical data and events for selected TC, RC, and CC components/modules and parts that are removed and replaced at specific aircraft, UA, and UAS subsystems operating hours. This form shall stay with the aircraft, UA, UAS subsystems, component/module, and/or parts throughout their service life.

*b. Use.*

(1) For TC, RC, and CC components/modules and parts, listed in TB 1-1500-341-01/LIS Parts Master LCF, for each MDS of aircraft and UAS subsystems listed in appendix D.

(a) Aircraft and UAS subsystem TC and RC components/modules and parts shall be combined on one form. This form shall have "Time Change Components" printed in the top margin on both sides of the form.

(b) Aircraft and UAS subsystem CC components/modules and parts shall have a separate form. This form shall have "Condition Items" printed in the top margin of both sides of the form.

(c) Do not enter "Time Change Components" or "Condition Items" in the top margins of component's separate DA Form 2408-16.

(d) When this form is prepared for major components identified in TB 1-1500-341-01/LIS Parts Master LCF, it may contain a mixture of TC, RC and CC components/modules and parts.

(2) To record needed information on-

(a) Field replacement TC, RC, and selected CC components/modules and parts installed on an aircraft, UAS subsystems, or major assembly.

(b) Sustainment facility (depot) replacement TC, RC, and selected CC components/modules and parts installed in a major assembly.

(c) Major components that require a narrative record of historical data.

(d) The HSF counts when the T703 engine is removed and replaced.

(3) The information recorded on DA Form 2410 and this form is related. The "No Prev O/H," "Time Since Last Inst (Hrs)," "Time Since New (Hrs)," and "Time Since Overhaul (Hrs)" removal entries for the DA Form 2410 are taken from information on this form. The "No Prev O/H," "Time Since Last Inst (Hrs)," "Time Since New (Hrs)," and "Time Since Overhaul (Hrs)" installing entries for the DA Form 2408-16 are taken from DA Form 2410, Install Copy.

*c. Special instructions.*

(1) The correct aircraft and UAS subsystems operating hours, component/module operating hours, and the frequency that components and/or modules are due replacement is important when the DA Form 2408-16 is filled out. Close attention should be given to the simple arithmetic, and replacement schedule contained in the applicable aircraft TM 23 series, AWR, SOF, and/or ASAM or TM 20 series, when figuring out removal and/or replacement times and when the replacement is actually due. The person filling out this form and QC personnel that review or inspect forms and records should take extra time and double check everything (see chap 2). Accuracy on this form shall go a long way toward safer flying aircraft, UA, and UAS subsystems.

(2) Replacement of selected aircraft or UAS subsystems RC components and/or modules, for other than failure or reuse, shall be done when the operating time of the component and/or module reaches its MAOT per TM 1-1500-328-23 and/or LIS Parts Master LCF.

(3) Components and/or modules and parts that are replaced on a calendar basis shall be recorded on a DA Form 2408-18 not on the DA Form 2408-16.

(4) The T703-AD-700/700A/700B engine is required to track starts, cycles, HSFC, and hours on this form if maintaining manual forms. Aviation LIS is capable of tracking the starts, cycles, HSFC and hours, and printing the historical information for this engine.

(5) APUs installed on H-60 series aircraft, T-700 series gas turbine engines, modules and sub components will not be recorded on the DA Form 2408-16. They will be recorded on DA Form 2408-16-1, since they are not tracked by aircraft hours.

(6) Aircraft, and UAS subsystems survivability equipment, electronic countermeasures, and avionics systems LRUs/black boxes that have software installed shall enter the software version in the lower half of block 6c (Component Ser NO. Location).

(7) Enter the pitch housing weight for the AH-64 main rotor head assembly in the lower half of block 6c (Component Ser NO. Location).

(8) The T55-GA-714A engine will be tracked on this form if maintaining manual forms. Aviation LIS is capable of tracking this engine based on operating hour readings from the Digital Electronic Control Unit (DECU) using the 'Admin' button, Legitimate Code File Options using the 'Form Configuration' button.

*d. General instructions.*

(1) The manufacturer shall prepare this form when an aircraft, UAS subsystems or selected components/modules are accepted into the Army inventory. There may be times when this form must be prepared for reportable components/modules already in service. If this occurs, the in-service item(s) shall be added to TB 1-1500-341-01/LIS Parts Master LCF and the owning activity shall prepare the form. The item may be installed, serviceable uninstalled, or unserviceable uninstalled. Enter only known data at the time of next installation or overhaul.

(2) When items entered on this form are removed, and blocks 6f and 6i have been completed, line through the existing entry. When a replacement item is installed, enter the replacement's data on the next open line.

(3) When an item is removed from TB 1-1500-341-01, line-out the item and enter this statement above the lined-out entry; "Deleted per TB 1-1500-341-01 (or other directive; such as, SOF message, ASAM, TB, or MWO) and date."

(4) Complete both sides of the form before starting a new form.

(5) When a NSN has not been assigned to an item listed in TB 1-1500-341-01, enter "NSN Pending" in the bottom portion of block 6b using a black lead pencil. When the NSN is assigned, erase the pencil entry and enter the assigned NSN.

(6) When the DA Form 2408-16 has been lost, destroyed, or becomes worn, prepare a new form. Make an entry in block 7 such as, "(date) -All current entries as of (date) were transposed from an illegible/lost form. (Signature, unit, and address)." If necessary, get the data for the new form from Commander, AMCOM (AMSAM-MSI-LM (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898-5000 or access MCDS on the TAMMS-A Portal Home Page (<https://>

tammsa.redstone.army.mil) or contact the DA Form 2410 hotline (DSN 897-2410, commercial (256) 313-2410); fax (DSN 746-4904, commercial (256) 876-4904); or e-mail (usarmy.redstone.usamc.mbx.immc-data2410@mail.mil).

(7) If a reportable major component/module with its own separate DA Form 2408-16 is replaced on a transient aircraft or UAS subsystems, and the form is located back at the home station maintenance office, the activity that replaced the item shall—

(a) Immediately telephone, fax, or e-mail a message to the owning unit informing them of the maintenance action.

(b) Request that the DA Form 2408-16 and any DA Form 2408-5-1 for the unserviceable item be forwarded by the fastest means possible. The method of shipment must use a procedure that can track the location of the package, in case the form does not arrive at the receiving unit and/or activity.

(c) Hold the unserviceable item until the form is received from the owning unit or the MCDS data has been verified with the owning unit to be correct, then the MCDS may be used to do the DA Form 2410 Removal, update the DA Form 2408-16 and DA Form 2408-5-1, then the forms may be printed and used.

*e. Disposition.*

(1) When the item in block 1 is removed from an aircraft, UAS subsystems, or other major component/module for evacuation, the form(s) for that item shall be removed from the aircraft historical records. The forms along with the related DA Form 2410 shall be packaged and protected from oil, water, and dirt and sent with the removed item.

(2) When all the items listed on the form have been removed and the entries lined out, reenter any current significant historical data from block 7 of the old form to a new DA Form 2408-16.

(3) When a component is dropped from accountability by disposal through DRMS, and after filling out the DA Form 2410 loss copy showing the appropriate loss code to Army inventory, send a photocopy of the component's DA Forms 2408-16, DA Form 2408-5-1, and DA Form 2410 to the Commander, AMCOM (AMSAM-MSI-LM (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898-5000.

*Note.* See TM 1-1500-328-23 for mutilation of condemned aeronautical equipment before disposal and UAS-PM Equipment Maintenance Management Policies and Procedures for UAS/UAS subsystems.

(4) When an aircraft, UAS/UAS subsystems is transferred to another Government agency, the DA Form 2408-16 shall be shipped with the aircraft, UAs/UAS subsystems file (see para 1-17). The QC section must check this form for accuracy and completeness before the aircraft, UA, or UAS subsystems is transferred.

(5) When an aircraft, UAs, and/or UAS subsystems is transferred to a Military Assistance Program Country the DA Form 2408-16 shall be shipped with the aircraft, UAS, and/or UAS subsystems file (see para 1-15). The QC Section must check this form for accuracy and completeness before the aircraft, UAS/UAS subsystems is transferred. Preparation instructions (by block number and title) for DA Form 2408-16 to record historical data on selected aircraft components are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. The T55-GA-714A engine requires unique tracking and the T703-AD-700/700A/700B requires unique tracking on several components: The Gas Producer Turbine Assembly #1 and #2 Wheels shall have three separate line entries: one entry for hours, one entry for cycles, and one entry for HSFC; The Power Turbine Assembly #3 and #4 Wheels and the Compressor Impeller Assembly shall have two separate line entries: one entry for hours and one entry for cycles. Page \_\_\_\_ of \_\_\_\_\_. Enter the page number and the total number (black lead pencil) of pages. (paper forms only).

1. *Nomenclature.* Enter the item (aircraft, UA, UAS subsystems, or component) name.

2. *National stock number.* Enter the aircraft, UAS subsystems, or component NSN. If the NSN changes because of MWO and/or RSN application; manual (paper) record keepers line out the old number and enter the new number, LIS users will have to uninstall the old NSN and reinstall the new NSN.

3. *Part number or model.* When the item, in block 1, is an aircraft, UAS subsystems, or training device and/or simulator enter the proper mission design series. When the item is a component enter the proper part number. If for any reason the MDS or part number changes, manual record keepers shall line out the old number and enter the new one; LIS users will have to uninstall the old PN and reinstall the new PN.

4. *Serial number.* Enter the aircraft, UAS subsystems, or component serial number.

5. *WUC.* Enter the work unit code for the major component listed in block 1. When block 1 contains an aircraft, leave blank. WUCs can be found in TB 1-1500-341-01/LIS Parts Master LCF.

*6a. Nomenclature and WUC.*

a. Enter on the top line the major component or subcomponent name, listed in TB 1-1500-341-01/LIS Parts Master LCF, for your aircraft, UAS subsystems, or major component in block 1.

b. Enter the proper work unit code on the bottom line. The WUC can be found in TB 1-1500-341-01/LIS Parts Master LCF, for all applicable component/module.

*6b. P/N and NSN.*

a. Enter on the top line the part number for the item listed in block 6a.

b. Enter on the bottom line the NSN for the item.

*6c. Component serial number location.* Enter the serial number (SN) and/or the location for the item listed in block 6a.

When no SN is assigned contact the DA Form 2410 Hotline for guidance. The location may be entered in addition to the serial number but not in place of a serial number. Enter the software version in the lower half for LRUs and/or black boxes that have software installed. Enter the pitch housing weight in the lower half for the AH-64 main rotor head assembly.

*6d. No prev O/H.* If the item in block 6a is a TC item, enter the number of overhauls the component/module has had from the DA Form 2410 install copy. If the TC item is new or has never been overhauled, enter zero. If the item is an RC or CC item, enter "RC" or "CC" (whichever applies) or leave blank. These codes can be found in TB 1-1500-341-01/LIS Parts master LCF.

*6e. Nomenclature inst hrs.* Enter the usage time since new, round to the nearest hour, for the item in block 1 when the block 6a item is installed.

*a.* If the item in block 1 is an aircraft or UA, get this figure from the current DA Form 2408-13, block 11, Flight data, aircraft hours, current.

*b.* If the item in block 1 is an uninstalled component and/or module, get this figure from the DA Form 2410.

*c.* If the item in block 1 is an installed component and/or module, go to the aircraft DA Form 2408-16 and locate the line for this component and/or module. Subtract the entry on the aircraft or UA DA Form 2408-16, block 6e, from the aircraft hours shown on the current DA Form 2408-13, block 11. Add the results to the entry on the aircraft or UA DA Form 2408-16, block 6h. Enter the sum, in this block, on the major subcomponent DA Form 2408-16.

*d.* The following applies to the T55-GA-714A engine:

*(1)* For the engine DA Form 2408-16, use the following:

*(a)* For the HMA, Compressor Rotor Assembly and Power Turbine Assembly, enter the total operating hours for the engine at time of installation. Obtain this information from DA Form 2408-16, remarks area, DA Form 2408-5-1, DA Form 2410, or a Digital Electronic Control Unit (DECU) print out.

*(b)* For the 1st and 2nd Turbine Disks, 1st GP Sealing Plate, and Turbine Gas Spacer, leave blank.

*(2)* For the Compressor Rotor Assembly subcomponent DA Form 2408-16, use the following:

*(a)* For the Compressor spacers 1 through 6, Compressor Disks 1, 2, and 4 through 7, Centrifugal Impeller, and Compressor Shaft, enter the total current cycles for the 3rd Compressor Disk at time of subcomponent installation. Obtain the information from the Engine, DA Form 2408-16 remarks area, DA Form 2408-5-1, or a DECU printout showing 3rd compressor disk cycles when the engine was last removed from an aircraft.

*(b)* For the 3rd compressor disk, leave blank.

*(3)* For the Power Turbine Assembly subcomponent DA Form 2408-16, leave blank for the Shaft Integral Assembly (3rd Turbine Disk) and 4th Turbine Disk.

*f.* For the T703-AD-700/700A/700B engine Gas Producer Turbine Assembly #1 and #2 Wheels, Power Turbine Assembly #3 and #4 Wheels, and the Compressor Impeller Assembly entries for cycles and/or HSFC, leave blank.

*6f. Nomen rmvl hrs.* Enter the usage time since new, rounded to the nearest hour, for the item listed in block 1, when the item in block 6a is removed.

*a.* If the item, in block 1, is an aircraft or UA, get this figure from the current DA Form 2408-13, block 11.

*b.* If the item, in block 1, is a component/module, go to the aircraft or UA DA Form 2408-16 and locate the line for this component/module. Subtract the entry on the aircraft or UA DA Form 2408-16, block 6e, from the aircraft or UA hours shown on the current DA Form 2408-13. Add the result to the entry on the aircraft or UA DA Form 2408-16, block 6h. Enter the sum in this block on the major subcomponent DA Form 2408-16 for the subcomponent being removed.

*c.* The following applies to the T55-GA-714A engine:

*(1)* For the engine DA Form 2408-16 use the following:

*(a)* For the HMA, Compressor Rotor Assembly and Power Turbine Assembly, enter the total operating hours for the engine at time of removal. Obtain this information from DA Form 2408-16 Remarks area, DA Form 2408-5-1, DA Form 2410, or a DECU print out showing engine operating hours at engine removal.

*(b)* For the 1st and 2nd Turbine Disks, 1st GP Sealing Plate, and Turbine Gas Spacer, leave blank.

*(2)* For the Compressor Rotor Assembly subcomponent DA Form 2408-16, use the following:

*(a)* For the Compressor spacers 1 through 6, Compressor Disks 1, 2, and 4 through 7, Centrifugal Impeller, and Compressor Shaft, enter the total current cycles for the 3rd Compressor Disk at time of subcomponent removal. Obtain the information from the Engine DA Form 2408-16 Remarks area, DA Form 2408-5-1, or a DECU printout showing 3rd Compressor disk cycles when the engine was last removed from an aircraft.

*(b)* For the 3rd compressor disk, leave blank.

For the Power Turbine Assembly subcomponent DA Form 2408-16, this block is left blank for the Shaft Integral Assembly (3rd Turbine Disk) and 4th Turbine Disk.

*d.* For the OH-58D Corner Mount and Restraint Spring Assembly, leave this block blank.

*e.* For the T703-AD-700/700A/700B engine Gas Producer Turbine Assembly #1 and #2 Wheels, Power Turbine Assembly #3 and #4 Wheels, and the Compressor Impeller Assembly entries for cycles and/or HSFC, leave blank.

*6g. Time since O/H.* If the item is a TC item, enter the number of operating hours, since the item in block 6a was last overhauled. Take this figure from the DA Form 2410. If the TC item is new, enter zero. If the item is an RC or CC item, enter "RC" or "CC" (whichever applies).



6h. *Comp inst hrs.* Enter zero or the usage time since new, rounded to the nearest hour, for the item in block 6a. Get this figure from the DA Form 2410.

a. The following applies to the T55-GA-714A engine:

(1) For the engine DA Form 2408-16, use the following:

(a) For the HMA, Compressor Rotor Assembly and Power Turbine Assembly, enter the current operating hours for the assembly at time of installation. This is zero if the component is new, or obtain this information from the DA Form 2408-16, remarks area, DA Form 2408-5-1, DA Form 2410, or a DECU printout.

(b) For the 1st and 2nd Turbine Disks, 1st GP Sealing Plate, and Turbine Gas Spacer, enter the current cycles for the component at time of installation. This is zero if the component is new, or obtain this information from DA Form 2408-16, remarks area, DA Form 2408-5-1, DA Form 2410, or a DECU print out.

(2) For the Compressor Rotor Assembly subcomponent DA Form 2408-16, for the Compressor spacers 1 through 6, Compressor Disks 1 through 7, Centrifugal Impeller, and Compressor Shaft, enter the current cycles for the subcomponent at time of installation on the Compressor Rotor Assembly. This will be zero for a new subcomponent, or obtain the information from an older DA Form 2408-16, DA Form 2408-5-1, or a DA Form 2410 for the subcomponent.

(3) For the Power Turbine Assembly subcomponent DA Form 2408-16, for the Shaft Integral Assembly (3rd Turbine Disk) and 4th Turbine Disk, enter the current cycles for the subcomponent at the time of installation on the Power Turbine Assembly. This will be zero if the component is new, or obtain this information from and older DA Form 2408-16, DA Form 2408-5-1, or a DA Form 2410 for the subcomponent.

b. For the OH-58D Corner Mount and Restraint Spring Assembly enter the total landings (including autorotations which is all full touchdown autorotation, hover autorotation, and any power-off landing) for the component at time of installation. This would be zero if a new component. Transparent tape may be used on this block and entries made in pencil (paper forms). Prior to zeroing data at the end of the Readiness Report Period (16th of each month), the total number of landings and autorotations from DA Form 2408-13 shall be added to this block.

c. For the T703-AD-700/700A/700B engine Gas Producer Turbine Assembly #1 and #2 Wheels, Power Turbine Assembly #3 and #4 Wheels and the Compressor Impeller Assembly, enter the current hours on the components and/or subcomponents at time of installation on the engine/component. Add line entries for the Gas Producer Turbine Assembly #1 and #2 Wheels entries and enter components current total HSFC at time of installation on the Gas Producer Turbine Assembly. Add line entries for the Gas Producer Turbine Assembly #1 and #2 Wheels, Power Turbine Assembly #3 and #4 Wheels, and Compressor Impeller Assembly and enter components current total cycles at time of installation on the engine/component.

6i. *Comp rmvl hrs.* When a component and/or module is removed, enter the total accumulated operating hours; obtained by subtracting block 6e from 6f, and then adding 6h.

a. The following applies to the T55-GA-714A engine:

(1) For the engine DA Form 2408-16 use the following:

(a) For the HMA, Compressor Rotor Assembly and Power Turbine Assembly, enter the total operating hours for the assembly at time of removal from the engine. Obtain this information from DA Form 2408-16 Remarks area, DA Form 2408-5-1, DA Form 2410, or a DECU print out at time of engine removal from the aircraft.

(b) For the 1st and 2nd Turbine Disks, 1st GP Sealing Plate, and Turbine Gas Spacer enter the total current cycles for the component at time of removal from the engine. Obtain this information from DA Form 2408-16, remarks area, DA Form 2408-5-1, DA Form 2410, or a DECU printout.

(2) For the Compressor Rotor Assembly subcomponent DA Form 2408-16, for the Compressor spacers 1 through 6, Compressor Disks 1 through 7, Centrifugal Impeller, and Compressor Shaft, enter the current cycles for the subcomponent at time of removal from the Compressor Rotor Assembly. Obtain the information from an older DA Form 2408-16, DA Form 2408-5-1 or a DA Form 2410 for the subcomponent.

(3) For the Power Turbine Assembly subcomponent DA Form 2408-16, for the Shaft Integral Assembly (3rd Turbine Disk) and 4th Turbine Disk enter the current cycles for the subcomponent at the time of removal from the Power Turbine Assembly. Obtain this information from and older DA Form 2408-16, DA Form 2408-5-1, or a DA Form 2410 for the subcomponent.

b. For the OH-58D Corner Mount and Restraint Spring Assembly, enter the total landings (including autorotations which is all full touchdown autorotation, hover autorotation, and any power-off landing) for the component at time of removal. The total number of landings and autorotations from DA Form 2408-13 at the time of removal from the aircraft shall be added to the landings in block 6h and entered in this block.

c. For the T703-AD-700/700A/700B engine Gas Producer Turbine Assembly #1 and #2 Wheels, Power Turbine Assembly #3 and #4 Wheels and the Compressor Impeller Assembly, enter the current hours on the components/subcomponents at time of removal from the engine/component. For the Gas Producer Turbine Assembly #1 and #2 Wheels enter components current total HSFC at time of removal from the Gas Producer Turbine Assembly. For the Gas Producer Turbine Assembly #1 and #2 Wheels, Power Turbine Assembly #3 and #4 Wheels, and Compressor Impeller Assembly, enter components current total cycles at time of removal from the engine and/or component.

6j. *O/H or replace life.* For CC components and/or modules, enter "COND." For TC and RC components and/or modules enter the maximum allowable operating time (MAOT) from the applicable TM -20/-23 series. When the TBO or "time to replacement" is changed, manual recordkeepers shall line out the old time and enter the new time, and LIS

users shall receive an updated parts master LCF. If the authority for this change was other than a change to the TM 20/23 series, enter the authority in block 7.

*6k. Replacement (ACFT hrs).* Enter the aircraft or UA operating hours that the component/module or part must be replaced by. Complete this column as follows:

*a.* On a component and/or module paper DA Form 2408-16 form only, the entry shall be in black lead pencil.

*b.* For condition change DA Form 2408-16 and other condition change subcomponents entered on DA Form 2408-16, enter "COND."

*c.* For the aircraft or UA time change DA Form 2408-16, the following applies:

(1) If the item, in block 6a, is a RC item or a TC item that has never been overhauled, subtract block 6h from 6j, and add to 6e.

(2) If the item, in block 6a, is a TC item that has been previously overhauled (block 6d has 1, 2, and 3, subtract block 6g from 6j, and add to 6e.

*d.* For the major component and/or module DA Form 2408-16, the following applies:

(1) Sustainment facility (depot)-level maintenance activities shall leave this block blank. This block shall be filled in when the major component and/or module is installed on the next higher assembly and listed on the next higher assembly time change or condition change DA Form 2408-16.

(2) If the subcomponent listed in block 6a is a RC item or a TC item that has never been overhauled (block 6d is RC or 0), subtract block 6h from 6j and add to block 6e; then go to the aircraft DA Form 2408-16 and locate the major component and add block 6e from the aircraft and/or UAS DA Form 2408-16 to the total obtained from the component form, then subtract block 6h of the aircraft/or UAS DA Form 2408-16; enter this total in block 6k on the component form. The formula looks like this: (component) 6j - 6h + 6e + (aircraft/UAS) 6e - 6h=6k on the component form.

(3) If the subcomponent listed in block 6a is a TC item that reflects an overhaul number (1, 2, or 3) in block 6d, subtract block 6g from 6j and add to block 6e; then go to the aircraft or UAS DA Form 2408-16 and locate the major component and add block 6e from the aircraft or UAS DA Form 2408-16 to the total from the component form; subtract block 6h of the aircraft or UAS DA Form 2408-16 and enter this total in block 6k on the component DA Form 2408-16. The formula is: ((component) 6j - 6g + 6e) + (aircraft/UAS) 6e - 6h)=6k .

*e.* When an item reaches the MAOT time or the "replacement due time" and an extension is granted, or the time is officially changed by the NMP, manual recordkeepers shall line out the original entry in this column and enter the new time. LIS users shall go to the parts LCF, tab dependent, and enter the SN of the affected part and the new RC or TC time and save. Then the manual users and LIS users need to notify the DA Form 2410 Hotline so AMCOM can flag that serial number in the MCDS system.

*f.* The T55-GA-714A engine, Compressor Spacers 1 through 6, Compressor Disks 1, 2, and 4 through 7, Centrifugal Impeller, and Compressor Shaft, requires special tracking utilizing the 3rd Compressor Disk cycles. These subcomponents are listed on the Compressor Rotor Assembly, DA Form 2408-16. Calculate the replacement due cycles based upon the 3rd Compressor Disk cycles. The equation is (blocks 6J-6H) + block 6E equals block 6K. Some components may be listed as TC and RC in the TM 20/23 series maintenance manual. When this situation occurs manual (paper) recordkeepers need to only make one entry for the component on the DA Form 2408-16. Draw a horizontal line through the center of blocks 6j and 6k. Enter the TBO interval in the top portion and the RC interval in the bottom portion of block 6j. Enter the TBO replacement due time in the top portion and the RC replacement due time in the bottom portion of block 6k. LIS users shall have two entries for this situation, one entry for the TBO and another entry for RC time.

*7. Significant historical data.* Enter any significant historical data on aircraft, UA components and/or modules, and parts. Before the data are entered, enter the date of the entry. After the historical data are entered, enter the preparer's AKO user name or first name, initial and last name, organization, and location. The following are examples of significant historical data: Crash damage, contamination, saltwater immersion, and so on. For components that are removed at specific operating hours for rework or other maintenance actions, such as "rotor head components removed at 1200 hrs for rework (turned 180 degrees) and reinstalled," shall be entered in this block. For T55-GA-714A engines, enter the DECU readings each time the engine is removed/installed.

#### **4-8. DA Form 2408-16-1**

*a. Purpose.*

(1) DA Form 2408-16-1 (History Recorder, Component, Module Record) provides a permanent record of historical data for selected TC, RC, and CC components and subcomponents for turbine engines equipped with a history recorder to collect total cumulative operating hours and history recorder counts, including the Low Cycle Fatigue (LCF-1 and LCF-2), Time-Temperature Index (TTI), and engine, component, or subcomponent operating hours. The data recorded on the DA Form 2408-16-1 is important information and extra care should be taken to keep it current and accurate. The data is used to complete DA Form 2410s and (by AMCOM) to track and manage selected items.

(2) This form shall remain in the aircraft historical file as long as the turbine engine is installed on the aircraft. The form shall stay with the engine, major component, or subcomponent when the item is removed for evacuation to supply, or support maintenance, including sustainment facility (depot).

*b. Use.*

(1) Use this form for all T-700 series engines, components, and subcomponents used on helicopters listed in TB 1-1500-341-01/LIS Parts Master LCF. Use a separate form for each major component that has reportable subcomponents installed.

(2) The DA Form 2408-16-1 may have a mixture of TC, RC, and CC subcomponents and is used to record needed information on—

(a) Field replacement TC, RC, and selected CC components while installed on the engine.

(b) Depot replacement of all major components and subcomponents on the engine.

*c. Special instructions.*

(1) It is very important to enter correct operating hours and replacement hours for major components and subcomponents when completing DA Form 2408-16-1. Close attention should be given to the replacement schedule in the applicable TM 23 series and to the procedures to compute the replacement time entered in block 13 on the backside of the form. Extra care should be taken by the person entering the information and by the QC personnel reviewing the forms. Accuracy on this form will go a long way toward safer flying aircraft.

(2) Because the installations and removals for T-700 series engines for aircraft are no longer recorded on the aircraft DA Form 2408-16, an entry is required in block 14. The entry shall include the following: the date, aircraft type, model, serial number, aircraft hours at installation/removal, engine total cumulative operating hours and counts at installation/removal, name, organization, and location of person entering the data.

(3) If the component or subcomponent has been operated on a slave engine, to ensure serviceability after repair, recap, or overhaul, the total cumulative counts must be adjusted. Calculate the time accumulated while operating on the slave engine and add to the total cumulative counts in block 6, line 1. Line out existing counts and enter the updated counts above the old figures.

*d. General instructions.*

(1) The manufacturer of aircraft listed in appendix D or reportable items listed in TB 1-1500-341-01/LIS Parts Master LCF shall prepare a DA Form 2408-16-1 when an engine or selected reportable items are accepted into the Army inventory.

(2) There may be times when this form must be initiated for reportable items already in service. If this occurs, the in-service item(s) shall be added to TB 1-1500-341-01/Parts Master LCF and any activity owning or performing any level of maintenance (organic or contract including sustainment facility (depot)) shall make the required entries on this form. The items may be installed, uninstalled, serviceable, or unserviceable.

(3) When item(s) entered on this form are removed, line through the existing entry on manual (paper) forms. When a replacement item is installed, enter data for the replacement item on the next open line.

(4) When all lines are filled, prepare another form and attach it to the original form.

(5) When an item is deleted from TB 1-1500-341-01/LIS Parts Master LCF, line out the item (manual paper forms) and enter this statement above the lined-out entry; "Deleted per TB 1-1500-341-01 (or other directive, such as, SOF message, ASAM, AMAM, TB or MWO/RSN) and the date."

(6) If DA Form 2408-16-1 has been lost, destroyed, or becomes worn prepare a new form (manual paper forms). If necessary, contact the Commander, AMCOM (AMSAM-MSI-L (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898-5000, or access MCDS on the TAMMS-A Portal Home Page (<https://tammsa.redstone.army.mil>), on the DA Form 2410 hotline (DSN 897-2410, commercial (256) 313-2410), or by e-mail at [usarmy.redstone.usamc.mbx.immc-data2410@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-data2410@mail.mil). Sources of data where the information may be found locally are other related forms, records, or condition tags.

(7) If a reportable component or subcomponent that has its own DA Form 2408-16-1 is replaced on a transit aircraft and the form is located back at the home station maintenance office, the activity that replaced the item shall—

(a) Immediately telephone, FAX, or e-mail a message to the owning unit informing them of the maintenance action.

(b) Request the DA Form 2408-16-1, DA Form 2408-5-1 and DA Form 2410 be forwarded by the fastest means possible. The method of shipment must use a procedure that can track the location of the package in case the forms do not arrive at the receiving unit or activity.

(c) Hold the unserviceable item until the form is received from the owning unit or the MCDS data has been verified with the owning unit to be correct, then the MCDS may be used to do the DA Form 2410 Removal and update DA Form 2408-16-1 and DA Form 2408-5-1; the forms may then be printed and used.

*e. Disposition.*

(1) When the engine is removed from the aircraft, or a component requiring a separate DA Form 2408-16-1 is removed from the engine for evacuation to supply or support maintenance, the form(s) shall be prepared for that item and removed from the aircraft historical files. These forms including the related DA Form 2410 shall be packaged to protect them from oil, water and dirt, and sent with the removed item.

(2) When the component or subcomponent is dropped from accountability by disposal through the DRMS, complete a DA Form 2410, showing a "J" code loss to the Army inventory, and send a photocopy of the DA Form 2408-16-1, DA Form 2408-5-1, and DA Form 2410, to Commander, AMCOM (AMSAM-MSI-LM) (DA Form 2410)), Redstone

Arsenal, Huntsville, AL 35898-5000.

*Note.* See TM 1-1500-328-23 for mutilation of condemned aeronautical equipment before disposal.

(3) When an aircraft is transferred to another Government agency, the copies of DA Form 2408-16-1 shall be shipped with the aircraft file (see para 1-17). The Quality Control section must check this form for accuracy and completeness before the aircraft is transferred.

(4) When an aircraft is transferred to a foreign country, the copies of DA Form 2408-16-1 shall be shipped with the aircraft file. The QC section must check this form for accuracy and completeness before the aircraft is transferred. A readable photocopy shall be mailed to AMCOM so they can generate DA Form 2410, to show a "K" loss to the Army inventory for each reportable component and subcomponent installed. Preparation instructions (by block number and title) for DA Form 2408-16-1 for T700 series engine showing major components and subcomponents. The use of "If req" or "-" on the sample forms indicates that no information was required for that block and enter page number and total number (black lead pencil) of pages (manual paper forms).

1. *Model.* Enter the engine model.

2. *Eng S/N.* Enter the engine serial number.

3. *Nomenclature.* Enter "Engine."

4. *P/N.* Enter the manufacturer's part number.

5. *S/N.* Enter the aircraft serial number that the engine is installed on. If the engine is uninstalled, leave blank.

6. *Historical counts on component/module.*

*Line 1+ - Previous counts of component/module.* For a new engine enter counts from test cell time. Otherwise enter counts from previous completed block 6, line 5=.

a. *LCF-1.* Enter the total cumulative LCF-1 counts for the engine.

b. *LCF-2.* Enter the total cumulative LCF-2 counts for the engine.

c. *Time/temp index.* Enter the total cumulative time/temp index (T/TI) counts for the engine.

d. *Operating hours.* Enter the total cumulative operating hours for the engine.

*Line 2 - Reading at installation of module/recorder.* Enter LCF-1, LCF-2, T/TI, and Operating Hours readings on the history recorder when the history recorder is installed.

*Lines 3, 4=and 5=.* These lines shall be completed if the history recorder is replaced.

7. *History recorder S/N.* Enter the history recorder serial number. When two or more pages are needed to enter the modules/components on the reverse side of the form, no entries are required in block 6 of the additional pages unless the front side of page 1 is filled.

*Backside.*

8. *Nomenclature.* Enter the name of each replaceable module/component listed in TB 1-1500-341-01/LIS Parts Master LCF.

9. *PART NUMBER.* Enter the manufacturer's part number of each module/component

10. *SERIAL NUMBER.* Enter the serial number of each module/component.

11. *O/H OR REPLACEMENT LIFE.*

a. If the item in block 8 has an established MAOT for overhaul, or retirement, enter the MAOT in this block.

b. If the item, in block 8 is a CC item, enter "COND" in this block.

c. When the TBO or time to replacement is changed, line out the old time and enter the new time (manual paper forms). LIS users will receive an updated Parts Master LCF. If the authority for this change was other than a change to the TM -23 series, enter the authority in block 14.

12. *HISTORICAL COUNTS AT LAST DEPOT REPLACEMENT.* The purpose of these blocks is to record what the total cumulative counts and hours were on the modules/components when they were installed on the engine and the total cumulative counts and hours on the engine at the time of module/component installation. The blocks shall be split in half to accommodate two entries in each block: one entry in the top half of the block and one entry in the bottom half of the block. To determine the total cumulative counts and hours on the engine, read the engine history recorder to obtain the current reading. Make sure that the history recorder serial number matches the history recorder serial number entered in block 7 of the engine DA Form 2408-16-1. Subtract the entry in block 6, line 2- of the engine DA Form 2408-16-1 from the history recorder reading. Add these counts and hours to the entry in block 6, line 1+ of the engine DA Form 2408-16-1. This is the total cumulative counts and hours on the engine. Obtain the total cumulative counts and hours of the module/component being installed from block 17 of the DA Form 2410 shipped with the module/component.

12a. Enter the total cumulative LCF-1 counts for the engine, at the time of module/component installation, in the top half of the block. Enter the total cumulative LCF-1 counts for the module/component being installed in the bottom half of the block

12b. Enter the total cumulative LCF-2 counts for the engine, at the time of module/component installation, in the top half of the block. Enter the total cumulative LCF-2 counts for the module/component being installed in the bottom half of the block.

12c. Enter the total cumulative T/TI counts for the engine, at the time of module/component installation, in the top half of the block. Enter the total cumulative T/TI counts for the module/component being installed in the bottom half of the

block.

12d. Enter the total cumulative operating hours for the engine, at the time of module/component installation, in the top half of the block. Enter the total cumulative operating hours for the module/component being installed in the bottom half of the block. If the item is a TC item and has been previously overhauled enter the time since overhaul. If the item is a TC item and never overhauled, enter the time since new. When this form is prepared for the engine, blocks 12a (LCF-1), 12b (LCF-2), and 12c (T/TI) shall only be completed for the history recorder, cold section module, power turbine module, and matched rotor/stator (GG turbine rotor assy). Blocks 12a, 12b and 12c shall be left blank for all other modules/components entered on the engine DA Form 2408-16-1.

13. *Replacement due (hist rcdr hr)*. If the module/component is a TC or RC item the replacement time must be calculated. The replacement due time shall be expressed in history recorder hours.

a. Calculate the replacement due for a RC item as follows:

(1) Read the engine history recorder at the time of module/component installation.

(2) Subtract the total cumulative hours in the top half of block 12d from the entry in the most current block 6d, line 1. Add to the total cumulative hours in the bottom half of block 12d and subtract from the MAOT in block 11. Add this amount to the entry in block 6d, line 2. Enter this figure in block 13.

b. Calculate the replacement due for a TC item as follows:

(1) Read the engine history recorder at the time of module/component installation.

(2) If the TC item has never been overhauled, subtract the total cumulative module/component hours in the bottom half of block 12d from the assigned retirement life entered in block 11. Add the results to the current history recorder hours. This figure shall be the history recorder hours that the module/component is due replacement.

(3) If the TC item has been previously overhauled, subtract the hours since overhaul from the assigned retirement life entered in block 11. Add the results to the current history recorder hours. This figure shall be the history recorder hours that the module/component is due replacement.

(4) Enter the time since new, number of prior overhauls, and time since overhaul for each installed TC item in block 14 so the information shall be available when the TC item is removed. This information is necessary for completion of DA Form 2410.

c. If the item in block 8 is a condition component enter "COND" in this block.

14. *Significant historical data*. Enter any significant historical data on engines, modules/components, and parts. Before you enter the data, enter the date of the entry. After you enter the historical data, enter your AKO user name or first name, initial and last name, organization, and location. The following are examples of historical data: Aircraft serial number that the engine is installed on or removed from, aircraft hours at installation or removal, total cumulative counts and hours when an engine is installed or removed, crash damage, contamination, hot starts, over torques, over speeds, salt water immersion, and/or overhaul/major repair.

(5) Preparation instructions (by block number and title) for DA Form 2408-16-1 for a new module/component for spares. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block and enter page number and total number (black lead pencil) of pages.

1. *Model*. Enter the module/component model.

2. *Eng S/N*. Enter engine serial number (black lead pencil) when installed. For items not installed on an engine, leave blank.

3. *Nomenclature*. Enter the name of the module/component.

4. *P/N*. Enter the manufacturer's part number.

5. *S/N*. Enter the module/component serial number.

6. *Historical counts on component/module*.

*Line 1+ - Previous counts of component/module*. Enter the total cumulative LCF-1, LCF-2, T/TI, and operating hours for the module/component after completion of test run.

*Line 2- - Reading at installation of module/recorder*. Leave blank. History recorder readings shall be entered when item is installed on an engine.

*Lines 3, 4=, and 5=*. These lines shall be completed when the history recorder is replaced.

7. *History recorder S/N*. Leave blank. The history recorder serial number shall be entered when the module/component is installed on an engine. When two or more pages are needed to enter the subcomponents on the reverse side of the forms, no entries are required in block 6 of additional pages unless the front side of page 1 is filled.

*Backside*.

8. *Nomenclature*. Enter the name of each replaceable subcomponent.

9. *Part number*. Enter the manufacturer's part number of each subcomponent.

10. *Serial number*. Enter the serial number of each subcomponent.

11. *O/H or replacement life*.

a. If the item in block 8 has an established MAOT for overhaul, rebuild, or retirement, enter the MAOT in this block.

b. If the item in block 8 is a condition change component enter "COND" in this block.

12. *History counts at last depot replacement*.

a. The purpose of these blocks is to record the total cumulative counts and hours on the subcomponents when they

were installed on the module/component and the total cumulative counts and hours on the module/component at the time of subcomponent installation.

b. The block shall be split in half to accommodate two entries: one entry in the top half of the block and one entry in the bottom half of the block. The total cumulative counts for the module/component in block 3, at the time of subcomponent installation, shall be entered in the top portion of this block. The total cumulative counts for each subcomponent, at the time of installation, shall be entered in the bottom portion of the block.

13. *Replacement due (hist rcdr hr).*

a. If the subcomponent has an established MAOT, leave blank. The replacement due shall be calculated when the module or component is installed on an engine.

b. If the subcomponent is a condition change component, enter "COND" in this block.

14. *Significant historical data.* Enter any significant historical data on modules/components, and parts. Enter the date before entering the data. After you enter the historical data, enter your name, organization, and location. The following are examples of significant historical data: Crash damage, contamination, hot starts, over torques, over speeds, salt water immersion, and overhaul or major repair.

(6) Preparation instructions (by block number and title) for DA Form 2408-16-1 for removal or installation of a module/component having a separate DA Form 2408-16-1. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block and enter page number and total number (black lead pencil) of pages (manual paper forms).

*Note.* Follow these procedures when installing a module/component with a separate DA Form 2408-16-1. Enter the module/component listed in block 3 of the separate DA Form 2408-16-1 on the correct next higher assembly DA Form 2408-16-1. Make the following entries on the separate module or component DA Form 2408-16-1.

*Blocks 1, 3, 4, 5, and 6 (Line 1+).* Already completed on the form when a module/component is received.

2. *Eng S/N.* When the next higher assembly of the module/component is the engine, enter the engine serial number.

6. *Historical counts on component/module.*

*Line 2 - Reading at installation of module/recorder.* Enter the current LCF-1, LCF-2, T/TI, and operating hours on the history recorder when installing a module/component on an engine. Do not complete Lines 3, 4=, and 5=for installation.

*Line 3- Reading at removal of module/recorder..* Enter the current LCF-1, LCF-2, T/TI, and operating hours on the history recorder when removing a module/component from an engine.

*Line 4= line 3 minus line 2.* Subtract the readings on line 2- from readings on line 3 to get the operating hours since last installation. Transfer these hours to DA Form 2410, block 9, prepared for the module/component.

*History recorder SN.* Enter the history recorder serial number when installing the module/component on an engine. When two or more pages are needed to enter the modules/components on the reverse side of the forms, no entries are required in block 6 of the additional pages unless the front side of page 1 is filled.

*Backside.*

*Blocks 8 through 12.* These blocks should be filled in before module/component installation. LCF-1, LCF-2, T/TI, and OP Hours are required for every subcomponent entered on a module/component DA Form 2408-16-1. When the TBO or time to replacement is changed, line out the old time and enter the new time (manual paper forms). LIS users will receive an updated Parts Master LCF. If the authority for this change was other than a change to the TM -23 series, enter the authority in block 14.

13. *Replacement due (hist rcdr hr).* If the module/component being installed is a TC or RC item the replacement time must be calculated. The replacement due time shall be expressed in history recorder hours.

a. Calculate the replacement due for a RC item as follows:

(1) Read the engine history recorder at the time of module/component installation.

(2) Subtract the total cumulative hours in the top half of block 12d from the entry in the most current block 6d, line 1. Add to the bottom half of block 12d and subtract from the MAOT in block 11. Add this amount to the entry in block 6d, line 2. Enter this figure in block 13.

b. Calculate the replacement due for a TC item as follows:

(1) Read the engine history recorder at the time of module/component installation.

(2) If the TC item has never been overhauled, subtract the total cumulative subcomponent hours in the bottom half of block 12d from the assigned retirement life entered in block 11. Add this amount to the current history recorder hours. This figure shall be the history recorder hours that the subcomponent is due replacement.

(3) If the TC item has been previously overhauled, subtract the hours since overhaul from the assigned retirement life entered in block 11. Add this amount to the current history recorder hours. This figure shall be the history recorder hours that the subcomponent is due replacement.

(4) Enter the prior overhauls and time since overhaul for each installed TC item in block 14 so the information shall be available when the TC item is removed. This information is necessary for completion of the DA Form 2410.

14. *Significant historical data.* Enter any significant historical data on modules/components, and parts. Enter the date before you enter the data. After you enter the historical data, enter your name, organization, and location. The following are examples of significant historical data: Prior O/Hs, time since O/H, crash damage, contamination, hot

starts, over torques, over speeds, salt water immersion, and overhaul or major repair. For removed module/component attach the DA Form 2408-16-1 along with the DA Form 2410 to the item for shipment to higher-level maintenance activity.

(7) Preparation instructions (by block number and title) for DA Form 2408-16-1, sustainment facility (depot) repair. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

*Note.* When an unserviceable engine is received at sustainment facility (depot) level, read the history recorder, enter this reading on block 6, line 3 and complete lines 4=and 5=of the engine DA Form 2408-16-1. Complete block 6 of the DA Form 2408-16-1 for each module/component having its own separate DA Form 2408-16-1.

*Blocks 1, 3, 4, and 5.* Should already be filled in.

*2. Eng S/N.* Leave blank for a module/component until it is installed on an engine or module/component. When the form is for an engine this block should already be filled in.

*6. Historical counts on component/module.*

*Line 1 + -* Previous counts of component/module.

*a.* Enter the total cumulative counts from the last completed block 6, line 5=to the next open block 6.

*b.* If the module/component has been operated on a slave engine to ensure serviceability after repair, the total cumulative counts/hours must be updated.

*(1)* Calculate the LCF-1, LCF-2, time and/or temp index, and operating hours accumulated by the engine or module/component while operating on the slave engine.

*(2)* Add these counts/hours to the total cumulative counts entered on line 1 +.

*(3)* Line out the existing figures in line 1 + and enter the updated counts/hours above the old figure.

*Line 2- - Reading at installation of module/recorder.* When this form is prepared for a module and/or component leave blank until the component is installed on an engine.

*Lines 3, 4=, and 5 -* Leave blank at this time.

*7. History recorder S/N.* When this form is prepared for a module/component leave blank until the component is installed on an engine. For an engine enter the history recorder serial number.

When two or more pages are needed to enter the modules/components on the reverse side of the forms, no entries are required in block 6 of the addition pages unless the front side of page 1 is filled.

*Backside.* For completion of the backside of the engine DA Form 2408-16-1 refer to the first page. Complete the reverse side of a separate module/component DA Form 2408-16-1 as follows.

*8. Nomenclature.* Enter the name of each installed subcomponent of the module/component on the next open line.

*9. Part number.* Enter the manufacturer's part number of each installed subcomponent of the module and/or component on the next open line.

*10. Serial number.* Enter the serial number of each installed subcomponent of the module/component on the next open line.

*11. O/H or replacement life.*

*a.* If the item in block 8 has an established MAOT, enter the MAOT in this block.

*b.* If the item in block 8 is a condition change module/component enter "COND" in this block.

*c.* When the TBO or "time to replacement" is changed, line out the old time and enter the new time (manual paper records). LIS users shall receive an updated Parts Master LCF. If the authority for this change was other than a change to the -23 TM, enter the authority in block 14.

*12. History counts at last depot replacement.*

*a.* Removing a subcomponent from a module and/or component with a separate DA Form 2408-16-1. Calculate the total cumulative counts and hours for each subcomponent removed by subtracting the total cumulative counts and hours entered in the top half of blocks 12a through 12d from the counts and hours entered in block 6, line 5=and adding this amount to the entries in the bottom portions of blocks 12a through 12d. These are the total cumulative counts and hours since new for the subcomponent. Enter these counts and hours on DA Form 2410, blocks 17a through 17d. In addition, enter the total cumulative operating hours since new on the DA Form 2410, block 10. Then line out the entry on the DA Form 2408-16-1.

*b.* Installing a subcomponent on a module/component with a separate DA Form 2408-16-1. The purpose of these blocks is to record what the total cumulative counts and hours were on the subcomponents when they were installed on the module/component and the total cumulative counts and hours on the module/component at the time of subcomponent installation. The blocks shall be split in half to accommodate two entries in each block: one entry in the top half of the block and one entry in the bottom half of the block. Obtain the total cumulative counts for the module/component from the module/component DA Form 2408-16-1, block 6, line 5=. Obtain the total cumulative counts and hours for each subcomponent being installed from the subcomponent DA Form 2410, block 17.

*12a.* Enter the total cumulative LCF-1 counts for the module/component, at the time of subcomponent installation, in the top half of the block. Enter the total cumulative LCF-1 counts for the subcomponent being installed in the bottom half of the block.

*12b.* Enter the total cumulative LCF-2 counts for the module/component, at the time of subcomponent installation, in the top half of the block. Enter the total cumulative LCF-2 counts for the subcomponent being installed in the bottom

half of the block.

12c. Enter the total cumulative T/TI counts for the module/component, at the time of subcomponent installation, in the top half of the block. Enter the total cumulative T/TI counts for the subcomponent being installed in the bottom half of the block.

12d. Enter the total cumulative operating hours for the module/component, at the time of subcomponent installation, in the top half of the block. Enter the total cumulative operating hours for the subcomponent being installed in the bottom half of the block.

13. *Replacement due (hist recdr hr).*

a. If the form is completed for a module/component with a separate DA Form 2408-16-1, enter "COND" for each CC item listed. For RC and TC items, leave block 13 blank until the module/component is installed on an engine.

b. When the module/component is installed on an engine enter the engine history recorder readings on the module/component DA Form 2408-16-1, block 6, line 2. If the subcomponent is a TC or RC item the replacement time must be calculated. The replacement due time shall be expressed in history recorder hours.

c. Calculate the replacement due for a RC item by subtracting the hours in the top half of block 12d from the entry in the most current block 6d, line 1. Add to the total cumulative hours in the bottom half of block 12d and subtract from the MAOT in block 11. Add this amount to the entry in block 6d, line 2. Enter this figure in block 13.

d. Calculate the replacement due for a TC item as follows:

(1) If the TC item has never been overhauled, subtract the total subcomponent hours in the bottom half of block 12d from the assigned retirement life entered in block 11. Add this amount to the entry in block 6d, line 2- on the front side of the form. This figure shall be the history recorder hours that the module/component is due replacement.

(2) If the TC item has been previously overhauled, subtract the hours since overhaul from the assigned retirement life entered in block 11. Add this amount to the entry in block 6d, line 2- on the front side of the form. This figure shall be the history recorder hours that the subcomponent is due replacement. Enter the prior overhauls and time since overhaul for each installed TC item in block 14 so the information shall be available when the TC item is removed. This information is necessary for completion of DA Form 2410.

14. *Significant historical data.* Enter any significant historical data on engines, modules/components and parts. Before you enter the data, enter the date of your entry. After you enter the historical data, enter your name, organization, and location. The following are examples of significant historical data: Engine installation and removal from an aircraft, total cumulative counts when an engine is removed or installed, crash damage, contamination, hot starts, over torques, over speeds, salt water immersion, and overhaul/major repair data.

(8) Preparation instructions (by block number and title) for DA Form 2408-16-1 for replacement of a history recorder. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

*Note.* When an engine history recorder is replaced, all copies of DA Form 2408-16-1 (engine and major components) must have block 6 completed for the old history recorder and in the next open block 6, line 1 + (previous counts of module/component, get from line 5=of the previous block 6) and line 2- (history recorder readings at time of installation) must be completed for the new history recorder. Add another DA Form 2408-16-1, if both block 6 are completely filled on the engine, module/component form. Be sure the serial number of the history recorder you are removing matches the serial number on the DA Form(s) 2408-16-1. Check lines 2-, 3, 4-, and 5=, for discrepancies. If any discrepancies are found, contact the DA Form 2410 hotline. Do not continue with the paperwork until all discrepancies are resolved.

*Blocks 1, 2, 3, 4, and 5.* Make sure that the engine model, serial number, name, manufacturer's part number, and component serial number are correctly entered.

6. Historical counts on component and/or module.

*Line 3 - Reading at removal of module and/or recorder.* Enter the recorder reading at time of history recorder removal. If the recorder is inoperative, every effort should be made to establish the correct data. If the engine data cannot be reconstructed, contact the AMCOM DA Form 2410 hotline.

*Line 4=Line 3 minus line 2.* Subtract line 2- from line 3.

*Line 5= Total component counts.* Add line 1 + to line 4=. Enter total on Line 1 + in the next open block 6. If the total cumulative counts were calculated due to history recorder failure, make an entry in block 14 and the Remark Block of DA Form 2410, prepared for the failed history recorder stating that the total cumulative counts were calculated due to history recorder failure.

*New block 6.*

*Line 1 + - Previous counts of component/module..* Reenter the total from the prior block 6, line 5=.

*Line 2- - Reading at installation of module/recorder.* Enter the new history recorder readings at the time of installation.

7. *History recorder S/N.* Enter the serial number of the new history recorder you are installing. When a history recorder is replaced the entries on the DA Forms 2408-16-1, block 13, must be recalculated for RC and TC major components and subcomponents. Failure to recalculate the replacement due time may result in exceeding the retirement life of these items.

#### 4-9. DA Form 2408-16-2

a. *Purpose.*



(1) DA Form 2408-16-2 provides a permanent record of historical data for selected TC, RC, and CC subcomponents for an APU to collect operating hours and starts. The data recorded on this form is important information, and extra care should be taken to keep it current and accurate. The data is used to complete DA Form 2410s, and by AMCOM to track and manage selected items.

(2) This form shall remain in the aircraft historical file as long as the APU is installed on the aircraft. The form shall stay with the APU when it is removed for evacuation to supply, or support maintenance, including sustainment facility (depot).

*b. Use.*

(1) Use this form for all APUs used on helicopters listed in TB 1-1500-341-01/LIS Parts Master LCF.

(2) The DA Form 2408-16-2 may have a mixture of TC, RC, and CC subcomponents and is used to record needed information on—

(a) Field replacement TC, RC, and selected CC subcomponents while installed on the APU.

(b) Sustainment facility (depot) replacement of all subcomponents on the APU.

*c. Special instructions.* The correct operating hours and/or starts are very important when completing DA Form 2408-16-2. Close attention should be given to the replacement schedule in the applicable -23 TM and the procedures to compute the replacement time entered in block 7k. Extra care should be taken by the person entering the information and by the QC personnel reviewing the forms. Accuracy on this form will go a long way toward safer flying aircraft.

*d. General instructions.*

(1) The manufacturer of aircraft listed in appendix D or reportable items listed in TB 1-1500-341-01/LIS Parts Master LCF, shall prepare a DA Form 2408-16-2 when an APU is accepted into the Army inventory.

(2) There may be times when this form must be initiated for reportable items already in service. If this occurs, the in-service item(s) shall be added to TB 1-1500-341-01/LIS Parts Master LCF and any activity owning or performing any level of maintenance (organic or contract including sustainment facility (depot)) will make the required entries on this form. The items may be installed, uninstalled, serviceable, or unserviceable.

(3) When item(s) entered on this form are removed, line through the existing entry (manual records). When a replacement item is installed, enter data for the replacement item on the next open line.

(4) When all lines are filled, prepare another form and attach it to the original form.

(5) When an item is deleted from TB 1-1500-341-01/Parts Master LCF, line out the item (manual records) and enter this statement above the lined-out entry; "Deleted per TB 1-1500-341-01 (or other directive, such as, SOF message, ASAM, AMAM, TB or MWO/RSN) and the date."

(6) If the DA Form 2408-16-2 has been lost, destroyed, or becomes worn prepare a new form. If necessary, contact the Commander, AMCOM (AMSAM-MSI-LM (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898-5000; access MCDS on the TAMMS-A Portal Home Page (<https://tammsa.redstone.army.mil>); contact the DA Form 2410 hotline (DSN 897-2410, commercial (256) 313-2410); or e-mail [usarmy.redstone.usamc.mbx.immc-data2410@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-data2410@mail.mil). Sources of data where the information may be found in the unit's records (LIS or six month file paper) or are other related forms, records, or condition tags (see chap 2). When a new form is prepared, destroy the damaged one.

(7) If an APU is replaced on a transit aircraft and the DA Form 2408-16-2 is located back at the home station maintenance office, the activity that replaced the item shall—

(a) Immediately telephone, FAX, or e-mail the owning unit informing them of the maintenance action.

(b) Request the owning unit verify the data is correct in MCDS for the DA Form 2408-16-2 and DA Form 2408-5-1. If not correct, the owning unit shall update the DA Form 2408-16-2 and DA Form 2408-5-1 information.

(c) The unit performing the maintenance shall complete the DA Form 2410 Removal and Installation as they perform the maintenance and print the DA Form 2410, DA Form 2408-16-2, and DA Form 2408-5-1 forms to go with the unserviceable item.

*e. Disposition.*

(1) When the APU is removed from the aircraft for evacuation to supply or support maintenance, the form(s) shall be prepared and removed from the aircraft historical files. Package and protect all forms and records from oil, water, and dirt prior to shipment of packaged component.

(2) When the APU is dropped from accountability by disposal through the DRMS, complete a DA Form 2410 showing a "J" loss code to the Army inventory and send a photocopy of the DA Form 2408-16-2, DA Form 2408-5-1, and DA Form 2410 to Commander, AMCOM (AMSAM-MSI-L (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898-5000.

*Note.* See TM 1-1500-328-23 for mutilation of condemned aeronautical equipment before disposal.

(3) When an aircraft is transferred to another U.S. Government agency, copies of DA Form 2408-16-2 shall be shipped with the aircraft file. The QC section must check this form for accuracy and completeness before the aircraft is transferred.

(4) When an aircraft is transferred to a foreign country, the DA Forms 2408-16-2 shall be shipped with the aircraft file. The QC section must check this form for accuracy and completeness before the aircraft is transferred. A readable

photocopy shall be mailed to AMCOM so they can generate DA Form 2410s to show a "K" loss to the Army inventory for each reportable component and subcomponent installed. Preparation instructions for DA Form 2408-16-2 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

1. *Model.* Mission design series for the APU.

2. *Nomenclature.* Enter "APU."

3. *Serial no.* Enter the serial number of the APU.

4. *Part no.* Enter the Part Number of the APU.

5. *NHA S/N.* Enter the aircraft serial number.

6. *APU historical starts/hours.*

*Line 1.* Previous starts/hours.

6a. *Starts last O/H.* Enter the number of starts since the last overhaul, if none enter zero.

6b. *Starts.* Enter the total number of starts since new.

6c. *Operating hours.* Enter the total number of hours since new.

*Line 2.* Meter reading at APU install.

6a (*starts last O/H*) and *STARTS LAST O/H*).

6b (*STARTS*). Enter the starts from the meter when the APU is installed on the aircraft.

6c *Operating hours.* Enter the hours from the meter when the APU is installed on the aircraft.

**LINE 3. METER READING AT APU REMOVAL.**

6a (*STARTS LAST O/H*) and 6b (*STARTS*). Enter the starts from the meter when the APU is removed from the aircraft.

6c *Operating hours.* Enter the hours from the meter when the APU is removed from the aircraft.

*Line 4 – total meter counts since install.* Subtract line 2 from line 3 to get the starts (6a and 6b) and hours (6c) since the APU was installed.

*Line 5 – total start/hours.* Add line 4 and line 1 to get the starts since overhaul (6a), starts since new (6b), and operating hours since new (6c).

7. *Replacement due starts/hours for the APU and subcomponents.*

7a. *Nomenclature and WUC.* In the top half of the block enter APU or the name of the subcomponent installed on the APU. In the bottom half of the block enter the WUC of the component. The first component listed here shall be the APU.

7b. *Part number and NSN.* In the top half of the block enter the Part Number of the component. In the bottom half of the block enter the National Stock Number of the component if known.

7c. *Component serial number.* Enter the component serial number.

7d. *NO. prev O/H.* If the item in block 7a is a TC component enter the number of previous overhauls. If the TC item is new or has never been overhauled enter zero (0).

7e. *NHA inst starts/hours.*

a. For the APU leave blank.

b. For subcomponents- enter the APU total starts at time on the installation.

7f. *NHA rmvl starts/hours.*

a. For the APU leave blank.

b. For subcomponents - enter the APU total starts at time of removal (6b, Line 5).

7g. *Starts since O/HTARTS SINCE O/H.* If the item in block 7a is a TC item enter the number of starts since the item was last overhauled.

7h. *Comp inst starts/hours.* If the item in block 7a is a new component enter zero (0) or the total starts on the item at time of installation.

7i. *Comp rmvl starts/hours.*

a. For the APU enter the total starts at removal from the aircraft.

b. For subcomponents subtract 7e from 7f and add to 7h and enter the total to 7i.

7j. *O/H or replace life.* Enter the life limit starts or operating hours for the item in 7a, or enter "COND" if the item is a CC item. For RC or TC items, enter the life limit number of starts or hours in the top half of the block and "starts" or "hours" whichever is applicable in the lower half of the block.

7k. *Replaced due starts/hours.* Enter the number of starts or operating hours when the component in block 7a is required to be removed if an RC or TC item. For the APU the equation is (7j minus 7g) plus 7h equals 7k. For an RC or TC subcomponent the equation is (7j minus 7h) plus 7e equals 7k.

8. *Significant historical data.* Enter significant historical data here.

#### **4-10. DA Form 2408-17**

a. *Purpose.* DA Form 2408-17 (Aircraft Inventory Record) The form provides a checklist of items assigned to an aircraft or UAS/UAS subsystems that are subject to a periodic inventory (see fig 4-12).

b. *Use.* For aircraft and UAS identified in appendix D as a record of—

(1) All property (such as, fly-away equipment) assigned to the aircraft or UAS.

(2) Additions and deletions of mission and role equipment to the aircraft or UAS.

(3) Required periodic inventories.

*c. General instructions.*

(1) The initial aircraft or UAS inventory record shall be prepared by the manufacturer of each aircraft, UA, and UAS ground-control equipment accepted by the Army. The forms shall be prepared with a LIS system, DA electronic forms, or paper forms with black ballpoint pen.

(2) The record shall contain the items listed in the "Aircraft Master Inventory Guide" in the applicable TM 23 series, or the "UAS Master Inventory Guide" in the applicable TM 20 series, or as adjusted to the theater of operations or the mission. LIS users shall use the Master Inventory LCF in the MCDS as a baseline that does not get changed without AMCOMs approval. Units shall create a "unit unique items" area at the end of the AMCOM Master Inventory list. The new unit unique items area is for unit property that is not permanently assigned to the aircraft but the commander requires the item(s) be inventoried with the aircraft. Units may add, delete, and/or modify the unit unique items area to fit their aircraft or UAS theater of operations or mission.

(3) The commander of the organization that the aircraft or UAS is assigned to shall make sure that—

(a) Entries on the aircraft or UAS inventory record are made when property is lost, destroyed, added, or permanently removed from the aircraft or UAS.

(b) DA Form 2408–17 is current and properly signed off before the aircraft or UAS is transferred.

(c) An inventory is taken when an aircraft or UAS is received, before an aircraft or UAS is transferred, and every 12 months while the aircraft or UAS is in the organization.

(d) The storage location is shown on the form when equipment is removed from the aircraft and stored.

(4) Installation of additional property is shown as follows:

(a) When items are permanently added to an aircraft or UAS after delivery, the DA Form 2408-17 must be updated. On the backside of the form, enter the authorization for the installation of the new items. Cross-reference this entry (including the affected line number) block 6, location or remarks, on the backside of the form. The entry must include the information below.

1. Date of installation.

2. Date of the letter, teletype (TWX), TM, MWO, TO&E, or TDA number, or regulation that directed the installation.

3. Origin of the directive.

4. The headquarters office symbol, and subject of the directive.

(b) TMs, correspondence, or regulations that establish general procedures or policy will not be used as authority. The phrase "VOCO" will not be used.

(c) Unit property shall not be considered as permanently installed property.

(5) When you receive authorization to permanently remove property from an aircraft or UAS, update the DA Form 2408–17 as follows:

(a) On the back side of the form, enter the information below:

1. Date of removal.

2. Date of the letter, TWX, TM, TO&E, or TDA number, or regulation that directed the removal.

3. Origin of the directive.

4. The file number, and subject of the directive.

5. The name of the removing organization.

6. The AKO user name or first name, initial and last name of the person who did the removal.

(b) Line out the item that was removed listed on the front side of the form (manual records). users shall remove the item.

(6) Property that is assigned to the aircraft, but stored when not in use, will be recorded on the DA Form 2408–17 as follows:

(a) Make entries as if the item is installed on the aircraft.

(b) Show that the item is stored by making an entry in the block 6, locations or remarks.

(7) Property that has been temporarily removed, but has not been reinstalled when the aircraft or UAS is transferred, shall be recorded on the DA Form 2408–17 as follows:

(a) Do not line out the entry on the DA Form 2408–17.

(b) Note the item as "short" in block 6, location or remarks, on the back side of the form and refer to the affected item number. The entry shall include the requisition number, or the ORG WON of the DA Form 2407 when the item is being sent to a higher maintenance activity.

(8) When loose items and kits are shipped under separate cover because they cannot be placed on or in the aircraft being transferred, take the actions below.

(a) In block 6, location or remarks, enter a remark to show the item(s) will be shipped separately. Refer to the item number of the affected item.

(b) Clearly mark the package or crate "Equipment for Aircraft SN (serial number of the aircraft) or UAS SN (serial number of the UAS).

(9) Record relocation of property to a different section of the aircraft or UAS as follows::

(a) Line out the initial entry for each item. Enter the new location in block 6, location or remarks, on the back side of the form.

(b) Enter the item on the DA Form 2408-17 that corresponds to the new location. Make an entry in block 6, location or remarks, to show that this is a new location for the item.

(10) Make entries to note replacement of property only when a different type or model number replaces an item.

*Note.* Remarks shall not be needed for additions or removals once the master inventory LCF is updated to include the action.

*d. Disposition.* DA Form 2408-17 is a permanent part of the aircraft historical file. New copies of DA Form 2408-17 are prepared when all equipment check entries are filled. The equipment listed under check number 1 on the new form shall be the same as those under check number 12 of the old form to insure that no items of equipment were deleted from the forms and that the quantity present under the last inventory of the old forms is the same as the first inventory on the new forms. Any pertinent remarks about equipment shortages, removals, or additions must be on the new form. When a new DA Form 2408-17 is prepared, the old form is kept in the aircraft or UAS historical file for 2 years, and then destroyed. Preparation instructions (by block number and title) for DA Form 2408-17 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block and page \_\_\_\_ of \_\_\_\_\_. Enter the page number and the total number (black lead pencil) of pages (manual records).

1. *Serial number.* Enter the UAS or aircraft serial number (seven numerical digits).

2. *Model.* Enter the UAS or aircraft mission design series.

3. *Area name.* Enter the area or station designation of the part of the aircraft where the items are physically located (refer to the TM 20 series or TM 23 series that applies).

4. *Equipment checklist.*

*Item no.* Enter items in sequence, starting with no. 1, for each aircraft area. When items are added to an area, enter the item on the next open line and use the next sequence number. Automated systems enters the number.

*Nomenclature.* Enter the item name, type, and model. Identify items that are part of a component and/or module or assembly to show their relationship to the major item.

*Qty req.* Enter the number of items called for in the TM 20 or 23 series in each area. Enter the quantity of special equipment that was issued for the aircraft or UAS as an operating accessory, such as hoist or high performance.

*Check number.* Enter the number (including zero) of each item physically present at each inventory. If an item is short, enter a remark in the remark's column. Enter this number in the area to the right of the equipment check number already printed on the form.

*Backside.*

5. *Verification.*

a. *Check number.* Enter the check number to correspond with the check on the front side of the form.

b. *Name of PID.* AKO user name of the person who verifies that the inventory was done.

c. *Rank.* The rank of the person who completes the inventory (for example, SSG, SFC, CW2, CPT, CIV).

d. *Date.* Enter the date the inventory was done.

6. *Location or remarks.*

a. *Item number.* When an inventory item is installed or removed enter the item number that corresponds to the item number in block 4.

b. *Location/remarks.* Enter the exact location of items installed or removed, using area name and fuselage stations when it applies. Enter the authority to install or remove, such as MWO and/or RSN number, date and the AKO user name or first name, initial, and last name of the person making the entry.

#### **4-11. DA Form 2408-19**

a. *Purpose.* DA Form 2408-19 (Aircraft Engine Turbine Wheel Historical Record) is a permanent record of significant historical data on aircraft turbine engine wheels.

b. *Use.*

(1) For turbine engines installed in aircraft identified in appendix D.

(2) By the sustainment facility (depot) level maintenance activity (organic or contract support), to determine—

(a) If the turbine wheel can be overhauled.

(b) Which turbine wheel parts must be replaced during overhaul/rebuild.

(3) This form will be filled out by the manufacturer, the depot level maintenance activity, or the unit that owns the installed or uninstalled turbine wheel.

(4) The unit/activity that makes the last and final entry in any section of the form will start a new form and attach it to the old form (manual records).

(5) The activity that does maintenance or has significant historical data about the turbine wheel is responsible for DA Form 2408–19 entries.

*c. Disposition.*

(1) *Uninstalled turbine wheels.* When a DA Form 2408–19 is prepared for an uninstalled turbine wheel, place it in a waterproof envelope with the DA Form 2410. Keep the envelope with the turbine wheel until it is installed in an engine.

(2) *Turbine wheels mounted in uninstalled engines.* Place the DA Form 2408–19 and any other required historical forms for the engine in the engine container (see chap 4). These forms shall not be removed until the engine is installed. The historical records shall then be filed in the aircraft historical file.

(3) *Turbine wheels mounted in installed engines.* Place the DA Form 2408–19 in the aircraft historical file.

(4) *Removal of the turbine wheel.* Remove the forms from the aircraft historical file and keep the DA Form 2408–19 with the engine or with the turbine wheel when the wheel is removed from the engine.

(5) *Turbine wheel final disposition.* When a turbine wheel is sent to the DRMS, send the DA Form 2408–19 with the turbine wheel. Preparation instructions (by block number and title) for DA Form 2408-19, Aircraft Engine Turbine Wheel Historical Record are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block and page \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number (black lead pencil) of pages (manual records).

1. *Part no.* Enter the turbine wheel part number.

2. *SN.* Enter the turbine wheel serial number.

3. *ACFT.* Enter the aircraft serial number (seven numerical digits) the turbine wheel is installed on.

4. *Nomenclature.* Enter the turbine wheel noun.

5. *NSN.* Enter the turbine wheel NSN.

6. *Cage no.* Enter the contractor and Government entity (manufacturer's code) number.

7. *Stage.* Enter the turbine wheel's position stage number.

8. *Acceptance date.* Enter the date that the turbine wheel was accepted into the Army inventory. Date of the "A" gain in MCDS. If you can not determine enter "UNK."

9. *Wheel diametrical measurements.* Only filled out by sustainment facility (depot) level maintenance personnel who perform the work. ASC personnel shall leave these blocks blank.

a. *Date.* Enter the date that the turbine wheel was measured.

b. *Wheel time.* Enter the total time since new on the turbine wheel after the diameter is measured. If the turbine wheel is uninstalled, get this time from the DA Form 2410 or the attached material condition tag (DD Form 1574, DD Form 1575, DD Form 1576, DD Form 1577, or DD Form 1577–2). If the wheel is installed, get the time from the DA Form 2408–16.

*c. Wheel with blades.*

(1) *Before grind.* Enter the diameter measurements of the complete turbine wheel, including blades, before any grinding takes place.

(2) *After grind.* Enter the diameter measurement of the turbine wheel, including blades, after grinding blades to the specified dimensional tolerance. If the "before grind" turbine wheel dimensions were within the specified tolerances, leave this block blank to show no grinding was done.

10. *Abnormal temperature and/or overspeed data.* Activities that know or are aware of any abnormal or marginal conditions shall make entries in these blocks (example, whenever the established engine temperature or over speed limits are exceeded).

a. *Date.* Enter the date that the abnormal or marginal condition occurred.

b. *Engine time.* Enter the engine time since new, to nearest hour, at the time the condition occurred. Compute this time by adding the total aircraft accumulated time since the engine was installed, to the engine time since new. Obtain this data from the aircraft DA Form 2408–16, and the current aircraft hours on the DA Form 2408–13.

c. *Wheel time.* Enter the wheel time, to the nearest hour since new that the condition occurred. Compute this time by adding the engine time accumulated since the turbine wheel was installed, to the turbine wheel time since new. Obtain this data from the Aircraft DA Form 2408-16, the current aircraft hours on the DA Form 2408–13, block 11, and DA Form 2408–19, block 11c.

d. *Temperature (Degrees C).* Enter the maximum temperature reached during the abnormal or marginal condition.

e. *Speed.* Enter the maximum speed (RPM of engine) reached during the abnormal or marginal condition.

f. *Time over limit.* Enter how long the condition lasted in minutes and seconds.

g. *Remarks.* Briefly explain the cause of the condition and any corrective action taken (for example, fuel control failure and engine repl).

11. *Installation date.* Activities that remove or install a turbine wheel shall make entries in these blocks. These entries provide the overhaul facility with the complete turbine wheel installation and removal history.

a. *Activity.* Enter the name of the activity that installed or removed the turbine wheel.

b. *Engine.*

(1) *Model.* Enter the mission design series of the engine that the turbine wheel is installed in.

(2) *SN*. Enter the serial number of the engine that the turbine wheel is installed in.

*c. Installed.*

(1) *Date*. Enter the date that the turbine wheel was installed in the engine.

(2) *Eng time*. Enter the engine time since new, to the nearest hour, when the turbine wheel was installed.

*d. Removed.*

(1) *Date*. Enter the date that the turbine wheel was removed from the engine.

(2) *Eng time*. Enter the total engine time since new, to the nearest hour, when the turbine wheel was removed.

*e. W/T*. Enter the total time since new, to the nearest hour, on the turbine wheel at the time of installation or removal from the engine. This time is determined by adding the old recorded turbine wheel time to the time accrued on the wheel while it was installed in the engine.

*f. Reason for removal*. Briefly explain why the turbine wheel was removed from the engine.

*Backside.*

**12. Turbine wheel blade data.** Activities that actually remove and replace the turbine wheel blades shall make entries in these blocks. Entries are not required for solid cast turbine wheels.

*a. Date*. Enter the date that the blade removal and replacement were done.

*b. Activity*. Enter the name of the activity doing the work.

*c. W/T*. Enter the turbine wheel time since new, to the nearest hour, when the blade was replaced. Determine this time by adding the time accrued on the engine, while it was installed in the aircraft, to the time shown in block 11, on the front side.

*d. Blade part number.*

(1) *Removed*. Enter the part number for each blade removed. If blades are not removed, enter "N/A."

(2) *Replaced*. Enter the part number for each blade installed. If blades are not removed and replaced, enter "N/A."

(3) *New/used*. Enter "NEW" or "USED" to show the status of each blade installed. If blades are not replaced, enter "N/A."

*e. B POS*. Show the blade positions that were replaced. All series of blades changed at one time shall be shown as a single entry; that is, 10, 17, 41, and 48. If all the blades were replaced, enter "ALL." If blades are not replaced, enter "N/A."

*f. Remarks*. Briefly explain why the blades were replaced. If blades are not replaced, enter "N/A."

**13. Significant historical data.** Enter any significant historical data about the turbine wheel's operational life, as follows:

*a.* The date the entry was made.

*b.* For the significant historical data the entries about overhauls will include the directive (DMWR or TM) number and date used to perform the overhaul. Commercial overhaul activities must also show the overhaul contract number.

*c.* The AKO user name or first name, initial and last name of the person making the entry.

*d.* The name and location of the activity (organic or contract support) to which the person belongs.

#### **4-12. DA Form 2408-19-1**

*a. Purpose.* DA Form 2408-19-1 (T53/T55 Turbine Engine Analysis Check Record) is a semi permanent historical record, for aircraft turbine engines, that includes a progressive record of turbine engine analysis check (TEAC) for selected turbine engines.

*b. Use.* Uses include the following:

(1) Required for aircraft turbine engines used as a main power source installed on aircraft identified in appendix D.

(2) To record TEAC results for applicable engines. This form will not be used for the T55-GA-714 engine.

*c. General instructions.*

(1) This form shall be prepared and provided by the manufacturer, sustainment facility (depot), or overhaul level maintenance activity when the turbine engine is manufactured, overhauled, or rebuilt. The aviation unit/activity will maintain and update the form as necessary until the engine is removed for overhaul, recap, or rebuild.

(2) The first entries on the front side of the form shall show the results of the first TEAC performed after engine installation. The unit/activity maintenance officer or test pilot should update this form each time a TEAC is performed.

(3) Fill out the form using a LIS system, electronic DA Forms, paper forms may be filled out with black ballpoint pen.

(4) When the aircraft is evacuated for higher level maintenance, send the form with the aircraft.

*d. Disposition.*

(1) Keep in the historical file for the aircraft.

(2) When an aircraft is transferred to another Government agency, the DA Form 2408-19-1 form(s) will be shipped with the aircraft file. The QC section must check this form for accuracy and completeness before the aircraft is transferred.

(3) When the engine is removed from an aircraft, pack the DA Form 2408-19-1 with other required engine records and keep with the engine.

(4) When an engine overhaul and/or rebuild is completed, the overhaul/rebuild facility shall prepare a new DA Form 2408–19–1 and destroy the old form. Preparation instructions for DA Form 2408–19–1 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. Page \_\_\_\_ of \_\_\_\_\_. Enter the page number and the total number (black lead pencil) of pages (manual records).

1. *Nomenclature.* Enter "Engine."
2. *Engine model.* Enter the engine type, model, and series.
3. *Engine serial number.* Enter the engine serial number. Columns 4 through 13 are used to show actual and required engine performance data. Enter actual flight performance data for a TEAC baseline then compute the new TEAC baseline information for N1 percent, and temperature using the engine TM -23. The required torque will always be based upon the power adjustment chart. Use the torque found on the engine data plate.
4. *Date.* Enter the date the entry was made or the check was completed.
5. *Base TORQ.* For T53 series or applicable engines enter the torque from the engine data plate.
6. *Aircraft serial number.* Enter the aircraft serial number (seven numerical digits).
7. *Eng TSO.* Enter the cumulative time, to the nearest hour, since new or last overhaul on the engine, if none enter "0."
8. *OAT oC.* Enter the actual outside air temperature (OAT). Do not enter compensated OAT.
9. *Press ALT.* Enter the altimeter reading with the barometric pressure indicator set at 29.92 inches Hg.
10. *N1% ACT/REQ.* Enter the actual indicated N1 percent at the time of the check. Enter the computed percent corrected to the surrounding conditions based on the reestablished standard; for example, 97.0/97.5.
11. *Torque ACT/REQ.* Enter the actual indicated torque readings at the time of the check. Enter the computed torque from the engine chart based on the torque from the engine data plate; for example, 48.0/47.0. The computed torque entry is not needed during a power assurance check.
12. *ENG/TOT ACT/REQ.* Enter the actual indicated EGT or turbine gas temperature (TGT) at the time of the check in the actual side of the block. Enter the EGT or TGT corrected to ambient conditions taken from the EGT adjustment factors table in the required side of the block; for example, 570/565.
13. *Remarks.* Briefly explain why a TEAC was performed. Indicate whether it was a normal or a baseline TEAC.

#### **4–13. DA Form 2408–19–2**

*a. Purpose.* DA Form 2408–19–2 (T700 Series Turbine Engine Analysis Check Record) is a semipermanent historical record, for aircraft turbine engines, that includes a progressive record of aircraft TEAC for selected turbine engines.

*b. Use.* The following are uses for this form:

- (1) Required for aircraft turbine engines used as a main power source installed on aircraft identified in appendix D.
- (2) To record TEAC results for T700 series engines

*c. General instructions.*

(1) This form shall be prepared and provided by the manufacturer, sustainment facility (depot), or overhaul level maintenance activity when the turbine engine is manufactured, overhauled, recapped or rebuilt. The aviation unit and/or activity will maintain and update this form as necessary until the engine is removed for overhaul or recap. The sustainment facility (depot) or overhaul level maintenance activity shall prepare a new form and ship it along with the engine after each overhaul and/or recap thereafter.

(2) This form shall be completed in a LIS system, by electronic DA Forms, or paper forms may be filled in by black ballpoint pen.

(3) The unit and/or activity maintenance officer or test pilot should update this form each time a TEAC is performed.

(4) When the aircraft is evacuated for higher level maintenance, send this form with the aircraft.

*d. Disposition.*

(1) Keep the form in the historical file for the aircraft.

(2) When an aircraft is transferred to another Government agency, the DA Form 2408–19–2 shall be shipped with the aircraft file. The QC section must check this form for accuracy and completeness before the aircraft is transferred.

(3) When the engine is removed from an aircraft, pack the DA Form 2408–19–2 with the other engine records and ship them with the engine.

(4) When the engine overhaul and/or recap is completed, the overhaul and/or recap facility shall prepare a new DA Form 2408–19–2 and destroy the old form. Preparation instructions (by block number and title) for DA Form 2408–19–2 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. Page \_\_\_\_ of \_\_\_\_\_. Enter the page number and the total number (black lead pencil) of pages (manual records).

1. *Nomenclature.* Enter "engine."
2. *Engine model.* Enter the engine type, model, and series plate.
3. *Engine serial number.* Enter the engine serial number from the engine data plate. Blocks 4 through 12 are used to

show actual and required engine performance data. Enter actual flight data for a TEAC baseline then compute the new TEAC baseline information for Ng percent and temperature. The required torque shall always be based upon the power adjustment chart. Use the torque found on the engine data plate.

4. *Date*. Enter the date that the entry was made or the test was completed.

5. *Aircraft serial number*. Enter the complete aircraft serial number (seven numerical digits).

6. *Engine time*. Enter the cumulative time since new or last overhaul on the engine.

7. *FAT oC*. Enter the actual free air temperature (FAT). Do not enter compensated FAT.

8. *Press alt*. Enter the altimeter reading with the barometric pressure indicator set at 29.92 inches Hg.

9. *NG percent*. Enter the actual indicated NG percent at the time of the check.

10. *Torque*.

*ACT*. Enter the actual indicated torque readings at the time of the check.

*TTV*. Enter the target torque value as computed from the engine chart.

*ETF*. Compute the engine torque factor per TM 1-2840-248-23.

11. *TGT*. Enter the actual indicated turbine gas temperature at the time of the check.

12. *Remarks*. Briefly explain why a TEAC was performed. Indicate whether it was a normal or baseline TEAC.

#### 4-14. DA Form 2408-19-3

a. *Purpose*. DA Form 2408-19-3 (Engine Component Operating Hours Record) is a semipermanent historical record for T-700 series turbine engines completed on the 15th of each month, to report aircraft, aircraft hours, engine serial numbers, history recorder serial numbers, and current history recorder readings.

b. *Use*.

(1) For all aircraft that have T-700 series engines installed.

(2) This information is required by AMCOM for reconstruction of engine and/or component/module historical forms and records.

(3) Required by the maintenance analysis function to be used in conjunction with other data for indication of failure trends so that corrective action can be taken to prevent failures.

(4) This data is also used in controlling the MAOT for T-700 series engines and components.

(5) The unit operating the aircraft shall compare the readings with past readings to ensure proper operation of the history recorders and to detect history recorder failure.

c. *General instructions*.

(1) The DA Form 2408-19-3 shall be filled out the fifteenth of each calendar month of the year. The crew chief or assigned mechanic shall read the engine history recorder and record the current history recorder serial number, LCF 1 and 2, TTI, and operating hours. This information shall then be annotated on the DA Form 2408-19-3 for all assigned aircraft with T-700 series engines. The form shall be reviewed for accuracy by the technical inspector(s) serving the unit or activity.

(2) This report can be found on the AMCOM MCDS Web page. On the MCDS home page at the top of the screen, select "Data Input" and then select "19-3 Data Entry." Any 19-3 data can be entered here and the report is complete; there is no need to mail or fax it. This is the preferred method.

(3) Aircraft serial numbers shall not contain hyphens or dashes; they consist strictly of seven numbers.

(4) This form is designed for 15 aircraft. If there is not enough room for all aircraft assigned, use another form.

d. *Disposition*.

(1) If there is no access to MCDS, the original copy shall be filled out and sent to the Commander, AMCOM (AMSAM-MSI-L (DA Form 2410)), Redstone Arsenal, Huntsville, AL 35898-5000, within 5 workdays of filling it out. This form may be faxed or scanned or e-mailed. As of February 2009, ULLS-AE does not submit this information electronically to AMCOM; therefore, all ULLS-AE users are required to use MCDS or mail, fax, or e-mail a copy to AMCOM.

(2) A copy will be filed and maintained locally for 6 months, then destroyed. Preparation instructions (by block number and title) for DA Form 2408-19-3 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. Page \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number of pages of DA Forms 2408-19-3 for this report period.

*Note*. The preferred method of completing this form is with MCDS. Manual records may be filled in by ballpoint pen or typewriter, or electronic DA Forms. Access MCDS on the TAMMS-A portal Home Page (<https://tammsa.redstone.army.mil>).

#### 4-15. DA Form 2408-19-4

a. *Purpose*. DA Form 2408-19-4 is a permanent historical record to track the power assurance checks of a T55-GA-714A engine.

b. *Use*. This form is used to track the power assurance checks for T55-GA-714A engines. The DA Form 2408-19-1 shall not be utilized for the T55-GA-714A.

c. *General instructions*.



(1) Fill out the form using LIS system, electronic DA Form, paper forms may be filled in by typewriter or black ballpoint pen.

(2) This form shall be completed every time an engine power assurance test is accomplished. Power assurance tests shall be accomplished and new temp margin values established at every post phase general test flight, when the HMA is changed, an engine is replaced or re-installed after major maintenance, when the engine performance is suspect, and/or at the direction of the maintenance officer.

(3) The form shall be filed in the aircraft historical records. When the engine is removed from an aircraft and is to be shipped to a repair facility or installed on another aircraft this form along with the rest of the engine historical records shall be placed in a protective cover and attached to the engine.

*d. Disposition.* This form shall remain with the engine for the life cycle of the engine. Preparation instructions (by block number and title) for DA Form 2408-19-4.

*Note.* The use of "If Req" or "-" on the sample forms indicates that no information was required for that block.

1. *Engine model.* Enter the engine model.

2. *Engine SN.* Enter the engine serial number.

3. *Aircraft SN.* Enter the aircraft serial number the engine is installed on.

4. *Date.* Enter the date the power assurance est was accomplished.

6. *Press alt.* Enter current pressure altimeter.

7. *OAT C.* Enter the current outside air temperature (OAT) in degrees centigrade.

8. *PTIT max/act.* Enter the maximum power turbine inlet temperature (PTIT) in degrees centigrade for this test in the upper block. Enter the actual PTIT in degrees centigrade in the lower block.

9. *N1 percent max/act.* Enter the maximum N1 percentage in the upper block from the chart in the maintenance test flight (MTF) Manual. Enter the actual N1 percentage during the power assurance test in the lower block.

10. *Torque min/act.* Enter the minimum torque allowed from the chart in MTF manual in the upper block. Enter the actual torque measured during the Power Assurance Test in the lower block.

11. *Fuel flow.* Enter fuel flow in pounds during the power assurance rest.

12. *Remarks/temp margin value.* Enter the temp margin value computed from MTF manual and/or any pertinent information pertaining to the history of the engine.

#### **4-16. DA Form 2408-20**

*a. Purpose.* DA Form 2408-20 (Oil Analysis Log) is a semi permanent historical record of oil and grease samples taken and results of the laboratory tests for all aircraft and UA components.

*b. Use.*

(1) For all aircraft and UA components in accordance with AOAP (see AR 750-1).

(2) To record all oil and grease samples taken according to TB 43-0211.

(3) To track trends in debris accumulation and changes in debris sizes for aircraft and UA equipment equipped with Oil Debris Detection System (ODDS).

*c. General instructions.*

(1) The DA Form 2408-20 will be kept in the logbook when the aircraft or UA is away from home station. It will be kept in the aircraft or UA historical file when at home station.

(2) A separate form shall be kept for each AOAP component.

*d. Disposition.*

(1) Keep the DA Form 2408-20 for three months in the aircraft or UA historical file after the form is completely filled in. Then file in the current aircraft or UA 6-month file. The form shall be destroyed per the disposition instructions for DA Form 2408-13-1 month file. The form will be destroyed per the disposition instructions for DA Form 2408-13-1.

(2) If an AOAP component is removed for repair or overhaul, send the DA Form 2408-20, along with the other historical or applicable records with the component. Preparation instructions for DA Form 2408-20 (by block number and title) is listed below.

*Note.* Special oil samples may be entered with red lead pencil, for units keeping records the manual way. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. PAGE \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number (black lead pencil) of pages (manual records).

1. *End item.*

*a. Nomenclature.* Enter "Helicopter" or "UA."

*b. Make or type.* Enter the aircraft or UA mission design series.

*c. Serial number.* Enter the UA or aircraft serial number (seven numerical digits)

2. *Sample frequency.* Enter the sampling frequency in hours.

3. *Component.*

*a. Nomenclature and type.* Enter the name of the component/module that the oil or grease sample was taken from.

When a sample is taken from an oil wetted system and not a component, enter the name of the system (for example, Flt. Cont. Hyd. Sys).

*b. Serial number.* Enter the serial number of the component/module that the oil sample is taken from. If the oil or grease sample was not taken from a component, leave blank.

*c. Time since new or overhaul.* If the component/module is installed and has never been overhauled or rebuilt, enter the time since new when the item was installed on the aircraft. If the component has been overhauled or rebuilt, enter the time since the item was overhauled or rebuilt when the item was installed on the aircraft or UA. If the sample was not taken from a reportable component, the time since new on the airframe or UA shall be entered in this block.

*d. ACFT hrs last oil change.* Enter the aircraft or UA hours when the oil was last changed.

*e. ACFT hrs installed.* Enter the aircraft or UA hours when the component/module was installed on the aircraft or UA. For hydraulic systems, enter zero.

4. *Date sample submitted.* Enter the date that the oil sample was taken.

5. *Hours.*

*a. End item.* Enter the current aircraft or UA hours (to the nearest hour) when the oil sample was taken.

*b. Component.* Enter the current component/module hours (to the nearest hour) when the oil sample was taken. If the component/module has never been overhauled or rebuilt, enter the time since new. If the component/module has been overhauled or rebuilt, enter the time since last overhaul or rebuild.

*c. Last oil chg.* Enter the component/module operating hours since the last oil change (to the nearest hour).

6. *Reason for sample.* Enter "routine" if the oil sample is scheduled and "special" if the oil sample is not routine or scheduled.

7. *Results.* Enter the results of the laboratory analysis (for example, satisfactory and maintenance recommended by the laboratory). Document the findings for the chip detector inspection such as the amount of debris (light or medium) and type of debris using description on the oil debris classification chart. If units using the manual record keeping system need more room, continue the entry in block 9.

8. *Results received.*

*a. Date.* Enter the date the results of the sample were received at your unit or when you received a phone call or message from the oil lab concerning this sample.

*b. PID.* AKO user name of the person who entered the results in block 7.

9. *Remarks.* Enter the location of the oil lab, when a lab other than the normal lab performs the oil analysis and the results are unsatisfactory. Enter all AOAP laboratory requests for special oil samples or maintenance required, by the AOAP laboratory. Precede the entry with the date, and enter a brief statement about the special oil sample or maintenance requirement. Enter the location of the laboratory that did the analysis requiring the special sample or maintenance action, and the AKO user name or first name, initial and last name, unit, and location of the person making the entry. If the results and required actions can't be legibly entered in block 7, use this block for continuation.

#### **4-17. DA Form 2408-33**

*a. Purpose.* DA Form 2408-33 (Meter Tracked Component Record) provides a record of historical data and events for selected TC, RC, CC components and/or modules and parts that are removed and replaced at specific hours of operation as indicated on a meter. This form shall stay with each meter tracked component/part throughout their service life. If the results and required actions can't be legibly entered in block 7, use this block for continuation.

*b. Use.*

(1) For TC, RC, CC components, and/or modules and parts listed in TB 1-1500-341-01/LIS Parts Master LCF, for all meter-tracked components.

(2) To record needed information on—

(a) Field replacement TC, RC, and selected CC components/modules and parts installed.

(b) Depot replacement TC, RC, and selected CC components/modules and parts installed in a major assembly.

(c) Major components that require a narrative record of historical data.

(d) Meter readings when the meter tracked components are removed and replaced.

*c. Special instructions.*

(1) The correct meter readings, component/module operating hours, and the frequency that the components/modules are due replacement are important when the form is completed. Close attention should be given to the simple arithmetic and replacement schedule contained in the applicable TM, when figuring out removal/replacement times. Extra time should be taken by the person completing this form and by QC personnel who review/inspect forms and records to be sure that all components that require tracking, per TB 1-1500-341-01/LIS Parts Master LCF, are entered on the form and that the arithmetic is correct.

(2) Replacement of selected subcomponents, for other than failure or reuse, shall be done when the operating time of the component/module reaches its maximum allowable operating time per TM 1-1500-328-23/LIS Parts Master LCF.

(3) Complete a DA Form 2410 anytime a meter tracked component is repaired, removed or installed

(4) Do not submit DA Form 2410 to AMCOM for subcomponents. Use a DA Form 2410 for local history only for the subcomponents/modules, as needed.

*d. General instructions.*

(1) The manufacturer shall prepare this form when a meter tracked component is accepted into the Army inventory. There may be times when this form must be prepared for components/modules already in service. If this occurs, the in-service item(s) shall be added to TB 1-1500-341-01/Parts Master LCF and the owning activity will prepare the form. The item may be installed, serviceable uninstalled, or unserviceable uninstalled. Enter only known data at the time of next installation or overhaul.

(2) When item(s) entered on this form are removed, and blocks 10e and 10g have been completed, line through the existing entry. When a replacement item(s) is installed, enter the replacement's data on the next open line.

(3) When an item is removed from TB 1-1500-341-01, line-out the item and enter this statement above the lined-out entry; "Deleted per TB 1-1500-341-01 (or other directive such as, SOF message, ASAM, TB, or MWO) and date."

(4) Fill in both sides of the form before starting a new form.

(5) The data in blocks 6 through 9 may change as a meter tracked component is removed and replaced, if this data changes erase the entry and enter the current data (manual records). The use of transparent tape is authorized (manual records). Tape must be of the type you can print on with a pencil.

(6) When the form has been lost or destroyed or becomes worn, prepare a new form. If necessary, get the data for the new form from the MCDS (<https://tammsa.redstone.army.mil>) or contact the DA Form 2410 hotline ((256) 313-2410) or e-mail [usarmy.redstone.usamc.mbx.immc-data2410@mail.mil](mailto:usarmy.redstone.usamc.mbx.immc-data2410@mail.mil).

(7) When a NSN has not been assigned to an item listed in TB 1-1500-341-01/Parts Master LCF, enter "NSN Pending" in the bottom portion of block 10b. When the NSN is assigned enter the assigned NSN.

*e. Disposition.*

(1) This form will be stored with the AN/ALQ-144 when uninstalled or in the aircraft historical records when the AN/ALQ-144 is installed on the aircraft.

(2) When the item, in block 1, is removed from an aircraft or UA for evacuation, this form(s) for that item shall be removed from the aircraft or UA historical records. All DA Form 2408-33's, along with the related DA Form 2410, shall be packaged and protected from oil and dirt and sent with the removed item.

(3) Each meter-tracked component, not including spares, shall be assigned to an aircraft or UA and a DA Form 2410 removal must be submitted when removing or installing the items.

(4) When all the items listed on the form have been removed and the entries lined out, reenter any current significant historical data from block 11 of the form to a new form. See TM 1-1500-328-23 for mutilation of condemned aeronautical equipment before disposal. Preparation instructions (by block number and title) for DA Form 2408-33. are listed below. Page \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number (black lead pencil) of pages (manual records).

1. *Nomenclature.* Enter name of meter-tracked component being installed.

2. *NSN.* Enter the national stock number of the meter-tracked component being installed.

3. *Part number or model.* Enter the model of the meter-tracked component being installed.

4. *Serial number.* Enter the serial number of the meter-tracked component being installed.

5. *WUC.* Enter the work unit code of the meter-tracked component being installed.

6. *ACFT model.* Enter the model of the aircraft or UA the meter-tracked component is installed on or assigned to.

7. *ACFT serial number.* Enter the serial number of the aircraft or UA the meter-tracked component is installed on or assigned to.

8. *ACFT hrs installed.* Enter the aircraft or UA hours, to the nearest hour when the meter tracked component was installed on the aircraft or UA. If unknown, enter the current aircraft or UA hours.

9. *Meter readings at INST.* Enter the elapsed time meter reading when the meter tracked component was installed on the aircraft or UA. If unknown, enter the current elapsed time meter reading.

10a. *Nomenclature and WUC.*

a. Enter on the top line the subcomponent name, listed in TB 1-1500-341-01/Parts Master LCF. Make sure you include each of the items listed in the TB/file.

b. Enter on the bottom line the proper Work Unit Code. The WUC can be found in TB 1-1500-341-01/Parts Master LCF for each component/module.

10b. *P/N and NSN.*

a. Enter on the top line the part number for each subcomponent.

b. Enter on the bottom line the national stock number for each subcomponent.

10c. *Component serial number or location.* Enter the serial number for each subcomponent. If the subcomponent does not have a serial number, enter the location of the subcomponent.

10d. *Nomen inst hrs.* Enter the elapsed time meter reading from the countermeasure set or meter-tracked major component when the subcomponent was installed on the countermeasure set or meter-tracked major component.

10e. *Nomen remv hrs.* Enter the elapsed time meter reading from the countermeasure set or meter-tracked major component when the subcomponent was removed from the countermeasure set or meter-tracked major component.

10f. *Comp inst hrs.* Enter the total hours on the subcomponent, in block 10a, when it was installed on the countermeasure set or meter-tracked major component.

10g. *Comp rmvl hrs.* Enter the total hours on the subcomponent, in block 10a, when it was removed from the countermeasure set or meter-tracked major component (subtract 10d. from 10e. and add that to 10f).

10i. *Replacement due meter reading.* Enter the replacement time, in elapsed time meter hours, when the subcomponent is due replacement (subtract 10f from 10h and add to 10d).

10i. *Replacement due meter reading.* Enter the replacement time, in elapsed time meter hours, when the subcomponent is due replacement (subtract 10f from 10h and add to 10d).

10i. *Replacement due meter reading.* Enter the replacement time, in elapsed time meter hours, when the subcomponent is due replacement (subtract 10f from 10h and add to 10d).

11. *Significant historical data.* Enter any significant historical data pertaining to the countermeasure set or meter tracked component.

#### 4-18. DA Form 2408-34

a. *Purpose.* DA Form 2408-34 (OH-58D Side/Transverse Roof Beam Record) provides a worksheet to calculate the retirement life for the OH-58D Side Beams and Transverse Roof Beams, Corner Mounts, and Restraint Springs. This form is a permanent historical record for these components. This form is used to convert the aircraft hours and landings (standard, touchdown and hovering autorotations) by a factor to obtain the adjusted component hours and landings and track when the components have reached their retirement life.

b. *Use.*

(1) To log the aircraft hours and landings (standard, touchdown and hovering autorotations) for each OH-58D Side/Transverse Roof Beam, Corner Mounts, and Restraint Springs.

(2) To convert the aircraft hours and landings to the adjusted component hours and landings for the Side/Transverse Roof Beams in accordance with TM 1-1520-248-23. To track aircraft hours and total landings for each Corner Mount and Restraint Spring.

(3) When the total adjusted component hours or the total adjusted component landings reach the limits identified in TM 1-1520-248-23 (whichever comes first) the component has reached its retirement life and must be removed from service.

c. *General instructions.*

(1) This form must be maintained for all units manually or by aviation LIS. Each aircraft shall require ten forms: one for each of the forward, aft, left hand, and right hand support structures, one for each corner mount (4), and one for each restraint spring (2).

(2) When a new side/transverse roof beams is received and it does not have a DA Form 2408-34, one shall be initiated and remain with the component for the duration of its life. The side/transverse roof beams are now tracked on the DA Form 2408-34. DA Form 2408-34 should be completed filled out. If the side/transverse roof beam is listed on the DA Form 2408-16 and does not have a DA Form 2408-34, contact the DA Form 2410 Hotline to obtain a baseline.

(3) Pilots enter the flight hours and landings (standard, touchdown and hovering autorotations) on the DA Form 2408-12 and this gets transferred to the DA Form 2408-13, block 11 (flight data). DA Form 2408-34, as a minimum, shall have data transferred to it at least once a month. This shall be accomplished by the 15th of each month, prior to zeroing the landings for the Readiness report. Data may be entered more often than monthly to maintain accuracy and to schedule timely replacement of components when the total adjusted component hours and/or landings get close to the retirement hours/landings.

d. *Disposition.*

(1) This form shall be stored in the aircraft historical records with the DA Forms 2408-16. If the component is removed and installed on another aircraft, or is removed for maximum operating time, or for failure, the form shall go along with the component, DA Form 2410 and DA Form 2408-5-1.

(2) Once the form is completely filled in and a new form is started, the old form shall remain with the historical records for one year. After one year it may be destroyed.

(3) It is essential that the current form tracks and remains with the component for its total life cycle. Preparation instructions (by block) for DA Form 2408-34 are listed below.

1. *Nomenclature.* Enter the name of the component (support, structure FWD; support, structure AFT; support, structure, LH; or support, structure, RH).

2. *NSN.* Enter the national stock number of the component in block 1.

3. *P/N.* Enter the part number of the component in block 1.

4. *Component SN.* Enter the serial number of the component in block 1.

5. *WUC.* Enter the work unit code for the component in block 1. This may be obtained from TB 1-1500-341-01/Parts Master LCF.

6. *ACFT SN*. Enter the aircraft serial number that the component in block 1 is installed on.
- 7a. *Adjusted replacement due hours*. Enter the number of adjusted hours (the Retirement Life) the component can accumulate until it must be replaced.
- 7b. *Adjusted replacement landings*. Enter the number of adjusted landings (the Retirement Life) the component can accumulate until it must be replaced.
8. *Date*. Enter the date when an entry is made.
9. *Information from DA Form 2408-13*. In the first available open block (not shaded), enter the following:
- 9a. *Hours*. Enter the total aircraft flight hours for the month or report period. This can be obtained by adding the aircraft hours from the DA Form 2408-13 TODAY blocks for the report period.
- 9b. *Landings*. Enter the total aircraft standard landings for the month or report period. This can be obtained by adding the standard landings from the DA Form 2408-13 TODAY blocks for the report period.
- 9c. *T/D*. Enter the total aircraft touchdown autorotations for the month or report period.
- 9d. *Hover*. Enter the total aircraft Hovering autorotations from the month or report period.
10. *Adjusted component totals*.
- 10a. *Hours*= $9a + (3.0 \times 9c) + (0.6 \times 9d)$ . First block on the page has an asterisk (\*). In this block enter a zero for a new component or the Adjusted Component Totals (HOURS) from a previous worksheet.
- Blocks*. This information contains no asterisks shall be utilized to show the current adjusted component hours for a report period. To get these hours take the Touchdown autos in block 9c times 3.0 plus the Hovering autos in block 9d times 0.6 then add to the HOURS in 9a. Blocks that contain two asterisks (\*\*) are used to total the two blocks immediately above this block, to give you the Current Adjusted Component Totals (HOURS). This total is checked against the replacement due HOURS in block 7a.
- 10b. *Landings*= $9b + (5.5 \times 9c) + (2.1 \times 9d)$ . First block on the page has an asterisk (\*). In this block enter a zero for a new component or the Adjusted Component Totals (LANDINGS) from a previous worksheet. Blocks that contain no asterisks shall be utilized to show the current adjusted component landings for a report period. To get these landings take the Touchdown autos in block 9c times 5.5 then add to the Hovering autos in 9d times 2.1 then add to the LNDGS in 9b. Blocks that contain two asterisks (\*\*) are used to total the two blocks immediately above this block, to give you the Current Adjusted Component Totals (LANDINGS). This total is checked against the replacement due LANDINGS in block 7b.

## Chapter 5 Aviation Life Support Equipment Forms and Records Procedures

### 5-1. General

- a. The forms in this chapter help in tracking by serial number, scheduling, recording, and managing maintenance operations of ALSE and aviator's night vision imaging systems (ANVIS).
- b. The forms show the results of maintenance checks and services, inspections, and provide a record of faults discovered during equipment operation.
- c. This chapter also tells how to use, prepare, process, and dispose of maintenance forms used in support of ALSE and ANVIS.
- d. An ANVIS logbook (Equipment Record Folder) is required for each set of ANVIS assigned to unit/activity.
- (1) The equipment record folder (NSN 7510-01-065-0166) holds the required forms to keep up with equipment use, operation, and condition.
- (2) The folder contains only the forms and records listed below.
- (a) DA Form 2408-5 in the first vinyl page.
- (b) DA Form 2408-15 in the second vinyl page.
- (c) DA Form 2408-30 closed-out form kept in the third vinyl page and additional closed-out forms in the fourth vinyl page.
- (d) DA Form 2407 organizational copy kept in the back cover of the folder.
- (3) An equipment record folder is assigned to a specific item of equipment.
- (4) The equipment record folder and all forms on an item of equipment remain with the equipment during scheduled or unscheduled maintenance and when it is turned in or transferred.
- e. Unless otherwise noted, all entries shall be in black indelible ink.
- f. In keeping with the Paperwork Reduction Act of 1995, the use of computerized products such as "ALSE Tracker" or "Automated Life Support Maintenance System (ALSMS)" to track, document, and maintain electronic records is authorized as long as the provisions of this chapter are met. Both of these programs are tracking databases that are free to all Army, Air Force, and DOD agencies or personnel contracted by those agencies to perform maintenance on life support equipment. The use of computerized tracking programs does not require paper copy forms. However, at a

minimum, weekly backups will be performed to ensure data recovery is possible in the event of computer failure, or natural disaster.

g. The PID on all forms and records shall be the AKO user name.

### **5-2. DA Form 2407 and DA Form 2407-1**

Refer to chapter 3 for policy and/or procedures, and preparation instructions on how to complete DA Forms 2407 (Maintenance Request) and/or DA Form 2407-1 (Maintenance Request Continuation Sheet).

### **5-3. DA Form 2408-5**

Refer to chapter 4 for policy and/or procedures and preparation instructions on how to complete DA Form 2408-5 (Equipment Modification Record).

### **5-4. DA Form 2408-15**

Refer to chapter 4 for policy and/or procedures and preparation instructions on how to complete DA Form 2408-15 (Historical Record for Aircraft).

### **5-5. DA Form 2408-21**

a. *Purpose.* DA Form 2408-21 (Multiplace Life Raft Inspection and Maintenance Record) provides a record of multiplace life raft inventory and maintenance inspections.

b. *Use.* This form is used—

(1) As an inventory record of installed components.

(2) To show the completion, and next due date of inspections per TM 5-4220-202-14.

(3) To show the replacement due dates by date of manufacture and/or expiration date of installed items. For example, for a group of 12 cans of rations or 12 pouches of water with a shelf life of 5 years from date of manufacture or three years from date of service, which neither can be exceeded, and have manufacture dates ranging from 12 June 2010 through 14 July 2011 and an expiration date of 14 July 2002 the replacement due date would be 12 June 2010.

*Note.* Single-place life rafts will be inspected as a part of a survival kit or vest using DA Form 2408-24 or when stored individually the DA Form 2408-29 may be used.

c. *General instructions.* Check multiplace raft with accessory containers installed per instructions in TM 5-4220-202-14.

d. *Disposition.* Destroy the form 6 months after the last inspection and/or service was recorded in block 22. Preparation instructions (by block number and title) for DA Form 2408-21 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block and enter the page number.

1. *Raft type.* Enter the type of raft.

2. *Raft serial no.* Enter the raft serial number. If the raft does not have a serial number, enter the locally assigned identification number.

3. *Location.* Enter where the raft assembly is physically located (black lead pencil), that is, CH-47D aircraft SN 920468.

4. *Issue date.* Enter the date that the multi-place raft is issued (black lead pencil).

5. *Raft manufacturer.* Enter the manufacturer's name.

6. *Raft dom.* Enter the date of manufacture of the raft.

7. *Date pyrotechnics inst.* Enter the date the pyrotechnics were installed into the raft.

8. *Hydrostatic test due.* Enter the date (black lead pencil) that the CO2 cylinder is due a hydrostatic test.

9a. *Ration lot number.* Enter the ration lot number of any rations installed (black lead pencil). If no rations are installed leave blank.

9b. *Ration dom/exp.* Enter the date of manufacture and the expiration date (black lead pencil) of the installed emergency rations.

10a. *Water lot no.* Enter the water lot number (black lead pencil) of the water installed.

10b. *Water dom/exp.* Enter the date of manufacture and the expiration date of the installed emergency water (black lead pencil).

11. *First aid kit insp due.* Enter the date (black lead pencil) the first aid kit(s) are due inspection.

12. *Maintenance/inspection data.*

a. *Due date.* Enter date the next inspection is due.

b. *Type insp.* Enter the type of inspection called for in TM 5-4220-202-14.

c. *Insp date.* Enter date the inspection was done.

d. **REMARKS.** Enter faults found during inspection, or SOF information. If no faults, enter "Insp OK."

e. **PID.** The person who did the inspection/maintenance shall enter his or her AKO user name or first name, middle initial, and last name.

13. *Installed component record.*

- a. *Nomenclature.* List all survival kit components installed in or attached to the raft.
  - b. *Req.* Number of the components called for by the applicable supply publication.
  - c. *Auth.* Number of the components authorized by the commander.
  - d. *O/H.* Number of the components that are on hand.
14. *RY.* See appropriate TM or information message for specific radio, Personal Locator B14. RADIO, PLB, SDU AND BATTERIES (PLB), Signal Detection Unit (SDC) and batteries installed.
- a. *Qty.* Enter the number of radios, PLBs, SDUs and batteries installed in the multi-place raft.
  - b. *Nomenclature.* Enter the name of each item (radio, PLB, SDU or battery) installed in or attached to the life raft.
  - c. *Lot no.* Enter the lot number if available of the batteries.
  - d. *Exp date.* Enter the expiration date of radio batteries.
15. *Pyrotechnics.* See appropriate TM or information message for specific pyrotechnics installed.
- a. *Qty.* Number of each specific pyrotechnic device installed in or attached to the raft.
  - b. *Nomenclature.* Enter the name/type of each pyrotechnic.
  - c. *Lot no.* Enter the lot number if available of the pyrotechnics.
  - d. *Exp date.* Enter the expiration date of the pyrotechnics.
16. *First aid kit components.* See appropriate TM or information message for specific first aid kit components installed.
- a. *Qty.* Number of each specific medical item in the first aid kit installed in the life raft.
  - b. *Nomenclature.* Enter the name of each medical item in the first aid kit.
  - c. *Lot no.* Enter the lot number of each medical item in the first aid kit.
  - d. *Exp date.* Enter the expiration date of each medical item in the first aid kit.

## 5-6. DA Form 2408-22

- a. *Purpose.* DA Form 2408-22 (Helmet and Attached Equipment Inspection/Maintenance Record) provides a record of helmet, and attached equipment inspections and maintenance performed.
- b. *Use.* This form is used to record—
  - (1) Completed helmet inspections per TM 10-8415-206-12&P.
  - (2) Completed oxygen mask/connector inspections per TM 55-1660-247-12.
  - (3) Completed visor inspections and continuity checks per TM 11-5855-263-23&P.
  - (4) Repairs made to the helmet, visor, oxygen mask, and/or connectors.
  - (5) Annual helmet and oxygen mask fittings.
  - (6) The ANVIS visor-mount inspection.
- c. *General instructions.* Maintain this form in the ALSE shop separate from the ANVIS records.
- d. *Disposition.* Destroy the form 6 months after the last inspection/service was recorded, in block 9. Preparation instructions (by block number and title) for DA Form 2408-22 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block and page \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number (black lead pencil) of pages.
  - 1. *Name.* Enter the name of the person the helmet is assigned to. For float visor or helmet, enter the unit's designated number for the item.
  - 2. *Rank.* Enter the rank of the person the helmet is assigned to. For float helmet, leave blank. (black lead pencil)
  - 3. *Organization.* Enter the individual's organization. For float helmet, leave blank.
  - 4. *Annual fitting due.* Enter the date of the annual fitting of the helmet, chemical mask, and/or oxygen mask. For float helmet, leave blank (black lead pencil)
  - 5. *Helmet type.* Enter the helmet type. For float helmet, leave blank.
  - 6. *Size.* Enter the helmet size.
  - 7. *Attached/mounted equip #1.* Enter the description of attached/mounted item, for example, ANVIS Mount or O2 Bayonet.
  - 7a. *Type.* Enter the type of attached/mounted equipment.
  - 8. *Attached/mounted equip #2.* Enter the description of other attached/mounted item, that is, ANVIS Mount or O2 Bayonet.
  - 8a. *Type.* Enter the type of attached/mounted equipment.
  - 9. *Helmet inspection record.*
    - 9a. *Date due.* Enter the date the next inspection is due.
    - 9b. *Inspection date.* Enter the date last inspection was accomplished.
    - 9c. *Remarks.* Enter faults found during inspection or SOF information. If no faults, enter "Insp OK."
    - 9d. *PID.* The person who actually did the inspection shall enter his or her AKO user name or first name, middle initial and last name.
    - 9e. *T.I. PID.* The technical inspector authorized in writing by the unit commander shall enter their AKO user name or first name, middle initial and last name.
  - 10. *Attached equipment #1 inspection record.*

*10a. Nomenclature.* Enter the description and type of attached item, for example, ANVIS Mount V1, TPL M45, or O2 Bayonet MBU-12.

*10b. Serial number.* Enter the serial number of the attached item. Leave blank if the item does not have a serial number.

*10c. Date.* Enter the date the item was installed, inspected, or changes were made to the equipment.

*10d. Remarks.* Enter faults found during inspection or SOF information. If no faults, enter "Insp OK."

*10e. PID.* The person who actually performed the maintenance task or the inspection shall enter their AKO user name or first name, middle initial and last name.

*10f. TI PID.* The TI authorized in writing by the unit commander shall enter their AKO user name or first name, middle initial and last name.

*11. Attached equipment #2 inspection record.*

*11a. Nomenclature.* Enter the description and type of attached item, for example, ANVIS Mount V1, TPL M45, or O2 Bayonet MBU-12.

*11b. Serial number.* Enter the serial number of the attached item. Leave blank if the item does not have a serial number.

*11c. Date.* Enter the date the item was installed, inspected, or changes were made to the equipment.

*11d. Remarks.* Enter faults found during inspection or SOF information. If no faults, enter "Insp OK."

*11e. PID.* The person who actually performed the maintenance task or the inspection shall enter his or her AKO user name or first name, middle initial and last name.

*11f. TI PID.* The technical inspector authorized in writing by the unit commander shall enter their AKO user name or first name, middle initial, and last name.

## **5-7. DA Form 2408-23**

*a. Purpose.* DA Form 2408-23 (Survival Radio/Emergency Locator Transmitter Inspection Record) provides a record of inspections and maintenance needed and completed for the survival radio/emergency location transmitter (ELT).

*b. Use.* This form is used to—

(1) Provide a record of completed inspections and shows when the next inspections are due per TM 11-5820-1037-13&P, TM 11-5820-1049-12, TM 11-5820-800-13&P, TM 11-5820-1159-12 and TM 11-5895-1629-13.

(2) Identify the battery installed in the ELT.

(3) Record significant historical data, SOF and SOU messages, and SAMs.

*c. Disposition.* Destroy the form 6 months after the last inspection and service was recorded in block 9. Preparation instructions (by block number and title) for DA Form 2408-23 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block and page \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number (black lead pencil) of pages.

*1. Radio typeA.* Enter type of survival radio or emergency location transmitter, for example, AN-PRC-90 and AN/PRC-112.

*2. Radio serial no./manufacture date.* Enter the survival radio or ELT serial number and date of manufacture.

*3. Nation stock number.* Enter the NSN of the survival radio or ELT.

*4. Technical manual.* Enter the reference TM number.

*5. Battery type.* Enter the type of battery installed.

*6. Battery serial number.* Enter the battery serial number (black lead pencil).

*7. Battery lot number.* Enter the lot number (black lead pencil) of the battery installed.

*8. Battery manufacture date.* Enter the date (black lead pencil) the battery was manufactured.

*9. Inspection record.* See appropriate TM for specific radio/transmitter.

*a. Due date.* Enter the date the next inspection is due.

*b. Type inspection.* Enter the type of inspection completed.

*c. Date inspected.* Enter the date the inspection was completed.

*d. Initials.* The person making the inspection shall put their PID here.

*e. Remarks.* Enter any significant historical information, including major repairs of the equipment.

## **5-8. DA Form 2408-24**

*a. Purpose.* DA Form 2408-24 (Survival Kit/Vest Inspection and Maintenance Record) provides a record of all inspections and maintenance needed and completed for the survival kits and aircrew survival vests. This shall include individual or single place life rafts.

*b. Use.* This form is used to—



(1) Record completed inspections and show when the next inspection is due per TM 1-1680-360-12, TM 55-1680-317-23&P, TM 55-1680-349-10, and TM 55-1680-351-10 and IETM 0250.

(2) List all components or items installed in the survival kits and vests.

(3) Record faults found during inspections and corrective action taken.

(4) Record expiration dates and lot numbers for installed rations, water pyrotechnics and first aid kit components.

*c. Disposition.* Destroy the form 6 months after the last inspection and service was recorded in block 12. Preparation instructions (by block number and title) for DA Form 2408–24 are listed below. The use of "If Req" or "-" on the sample forms indicates that no information was required for that block. If some items are not installed or blocks are not applicable (N/A), then leave blank. Page \_\_\_\_ of \_\_\_\_\_. Enter the page number and total number (black lead pencil) of pages.

1. *Kit type and size.* Enter the type and size of survival kit or vest, for example; AMSS 2man, SARVIP large.

2. *Kit number.* Enter the kit or vest serial number or locally assigned identification number.

3. *Location.* Enter the location of the kit (black lead pencil), for example; Sta 140, CH-47D, 8900147.

4. *Name.* Enter the name of the individual that the vest is assigned to (black lead pencil).

5a. *Ration lot number.* Enter the ration lot number of any rations installed (black lead pencil). Leave blank if no rations are installed.

5b. *Ration dom/exp.* Enter the date of manufacture and the expiration date of the installed emergency rations (black lead pencil).

6a. *Water lot number.* Enter the water lot number (black lead pencil) of the water installed.

6b. *Water dom/exp.* Enter the date of manufacture and the expiration date of the installed emergency water (black lead pencil).

7. *First aid kit due.* Enter the date (black lead pencil) the first aid kit is due inspection. Determined by the earliest due date of an item in the first aid kit.

8. *Maintenance and inspection data.*

8a. *Due date.* Enter the date the next inspection is due.

8b. *INSP date.* Enter the date the inspection was performed.

8c. *Remarks.* Enter any faults or significant historical information to include major repairs of the equipment. If no faults, enter "Insp OK."

8d. *Corrective action.* Enter any significant corrective action performed including major repairs of the equipment.

8e. *PID.* The person who actually did the inspection and/or corrective action shall enter his or her AKO user name or first name, middle initial and last name.

9. *Installed component record.* See appropriate TM for specific items installed.

9a. *Nomenclature.* Enter the name of each item/component installed in or attached to the survival kit or vest.

9b. *REQ.* Enter the number of items called for by supply manuals or information message for each item/component installed in or attached to the survival kit or vest.

9c. *Auth.* Enter number of items prescribed by the commander.

9d. *O/H.* Enter the number of items that are on hand.

10. *Radio, PLB, SDU, and battery.* See appropriate TM or information message for specific radio and batteries installed.

10a. *Qty.* Enter the number of radios, personal locator beacons, signal detection unit, and/or batteries installed in or attached to the survival kit or vest.

10b. *Nomenclature.* Enter the name/type of each radio, PLB, SDU and/or battery installed in or attached to the survival kit or vest.

10c. *Lot no.* Enter the lot number if available of the batteries installed.

10d. *Exp date.* Enter the expiration date if available of the batteries installed.

11. *Pyrotechnics.* See appropriate TM or information message for specific pyrotechnics installed.

11a. *Qty.* Enter the number of each specific pyrotechnics installed in or attached to the survival kit or vest.

11b. *Nomenclature.* Enter the name/type of each specific pyrotechnics installed in or attached to the survival kit or vest.

11c. *Lot no.* Enter the lot number if available of the pyrotechnics installed.

11d. *Exp date.* Enter the expiration date if available of the pyrotechnics installed.

12. *First aid kit components.* See appropriate TM or information message for specific first aid components installed.

12a. *Qty.* Enter the number of each specific medical item in the first aid kit installed in or attached to the survival kit or vest.

12b. *Nomenclature.* Enter the name/type of each specific medical item in the first aid kit installed in or attached to the survival kit or vest.

12c. *Lot no.* Enter the lot number if available of each medical item in the first aid kit installed.

12d. *Exp date.* Enter the expiration date if available of each medical item in the first aid kit installed.

### 5-9. DA Form 2408-27

*a. Purpose.* DA Form 2408-27 (Life Preserver Data) provides a record of inspection and inflation tests needed for the life preserver.

*b. Use.* This form is used to record—

- (1) Completed CO<sub>2</sub> inflation tests, and show when the next inflation test is due per TM 5-4220-202-14.
- (2) Completed life preserver inspections and show when the next inspection is due per TM 5-4220-202-14.
- (3) Historical data for each life preserver.

*c. Special instructions.*

- (1) Make sure that DA Form 2408-27 is changed.
- (2) Attach the DA Form 2408-27 to the life preserver.

*d. Disposition.* This form is used only to record inflation tests and may be replaced as necessary. Destroy the form 6 months after the last inspection or service was recorded in block 6.

### 5-10. DA Form 2408-28

*a. Purpose.* DA Form 2408-28 (Oxygen Console Service Record) provides a record of the oxygen system and will be affixed to the console. A second copy of the form will be used as a shop record.

*b. Use.* This form is used to—

- (1) Serve as an inventory of installed components.
- (2) Record completion and next due date of inspections per TM 55-1660-247-12.
- (3) Record the servicing, repair, or modification of the unit.

*c. Disposition.* Destroy the oxygen console copy of the form 1 year after the last inspection was recorded in block 7.

### 5-11. DA Form 2408-29

*a. Purpose.* DA Form 2408-29 (Anti-Exposure Coveralls Inspection Record) provides a record of inspections and maintenance needed and completed for the anti-exposure coveralls (see fig 5-8).

*b. Use.* This form is used to record—

- (1) Completed inspections, and when the next inspection is due per TM 10-8475-202-13.
- (2) Faults found during inspections, and all corrective action taken.

*c. Disposition.* Destroy the form 6 months after the last inspection or service was recorded in block 6.

### 5-12. DA Form 2408-30

*a. Purpose.* DA Form 2408-30 (NVG Inspection and Maintenance Record) provides a record of all faults found during assembly, preoperational checks, preventive maintenance checks and services, special inspections, and operation of aviators NVG system (see fig 5-12).

*b. Use.* This form is used for aviation night vision goggles, AN/PVS-5 and AN/AVS-6 series. It is used to—

- (1) Record operator remarks or faults detected and dates found.
- (2) Record action taken to correct faults and dates corrected.
- (3) Record condition status symbols of NVGs.
- (4) Record completed maintenance, services, checks, and inspections, and dates completed.

*Note.* There is no requirement to document preoperational check due or operators check due on DA Form 2408-30.

- (5) Shows when the next scheduled inspection is due.
- (6) Record special inspections. For example; distortion evaluations.

*c. Special instructions for the operator.*

(1) Before using NVGs in the aircraft, perform a preoperational check to determine if the equipment is ready to use.  
(2) Review the DA Form 2408-30 to ensure that the next scheduled maintenance inspection is not overdue, and check the condition status of the NVG to assure that equipment is ready for use.

(3) Distortion evaluation completion requires the signatures of two experienced ANVIS/NVG pilots to be entered.  
(4) It is recommended that units retain the DA Form 2408-30 while NVGs are at the AVIM unit for repair or inspection. After NVGs are returned from a maintenance facility, the owning unit will complete the DA Form 2408-30, Part II—Correcting Information Block, Action section, by entering a short description of the action taken from the DA Form 2407, after verifying the work was inspected. After the short description, the maintainer will enter his or her signature. When the fault is a red “X” or circled red “X” the TI will ensure a satisfactory MOC is completed, and enter “Insp OK” after the maintainer’s signature, and enter his or her signature in the TIPID Block.

(5) Commanders at the AVUM level may authorize the NVG maintainer to also be the TI. In unit/activities where the commander has designated the maintainer to perform TI duties the maintainer/TI must sign after the corrective action, as well as the TIPID block when the fault is a red “X” or circle red “X.” paragraph 1-9b of this pamphlet applies to all unit/activities that perform other than AVUM level work.

*Note.* Three month PMCS consists of inspections, checks, and services of the NVG and power pack, high/low resolution test, and for ANVIS an infinity focus check.

*d. General instructions.*

(1) Maintain the current DA Form 2408–30 in the NVG carrying case. Fold the form to fit inside the case. The DA Form 2408–30 will be maintained by the owning unit. When the form is completely filled, close it out by entering “CF” in the Correcting Information Block of all uncorrected faults. The person carrying forward the entry to the new form will sign their name after the “CF.” Enter the date that the fault was carried forward in the Date block. Initiate a new DA Form 2408-30, enter in block 6 (Next Inspection Due) when the next scheduled inspections (3 month and 6 month) are due, and in Part I–Fault Information Blocks reenter the fault as it was originally entered on the old form.

(2) Enter only one fault or remark in each Part I–Fault Information Block. There are a total of five blocks on each DA Form 2408–30.

(3) Make hand printed entries in black lead pencil, or a typewriter may be used. Use only a red lead pencil or ballpoint pen with red ink for status symbols. The commander or designated representatives may use blue or black ballpoint pen to clear red “X” or circle red “X” entries. The use of transparent tape is authorized for use in block 6. Tape must be of the type you can print on with a pencil.

(4) Once a status symbol is in the Status Block, it will not be erased or changed even if entered in error (see para 1–9). The person who corrects a red dash or red diagonal fault will enter their last name initial over the status symbol. A red “X” or circled red “X” status symbol will be initialed over only by a qualified designated representative.

(5) The person who finds a fault will enter a short description of the fault, maintenance check, service, or inspection in the Fault Information Block and sign their name behind the entry.

(6) If more space is needed in the Fault Information Block to enter a fault/remark then enter “Continued” or “Cont.” on the last line of the Fault Information Block and continue the fault/remark in the next open Fault Information Block.

(7) When corrective action has been taken to correct the fault, deficiency, condition, incorrect entry, or directive (such as, SOU messages, TBs or MWOs), and components or other repair parts are removed and reinstalled, or replaced, the person making the corrective action will enter the action taken in Part II - Correcting Information Block. Using words or phrases, such as, “applied,” “tested,” “installed,” “serviced,” “replaced,” “repaired,” “adjusted,” or “erroneous entry” with other brief information, to describe the corrective action, will be sufficient. If you use one or more words to describe action taken, or use authorized abbreviations, it will not be considered in error. DO NOT use the word “Corrected.”

(8) Upon completion of the corrective action, the person making the corrective action will sign his or her name and place their last name initial over the red dash or diagonal symbol in the STATUS block of the Fault Information Block. To clear a Red “X” or Circled Red “X” symbol, the completed action must be inspected by a designated representative per paragraph 1-9.

(9) The person completing the corrective action on the DA Form 2408-30 that calls for additional entries on historical forms or records, such as, DA Forms 2408-5 or DA Form 2408-15, will be responsible for entries on the historical forms.

*e. Disposition.* Maintain the current DA Form 2408–30 in the NVG carrying case until the form is completely filled. The closed out form will be filed in the third vinyl page of the logbook. All additional closed out forms will be kept in the fourth vinyl page of the logbook for 6 months from the date of the last entry on the form.

**5–13. DD Form 1574/DD Form 1574–1, DD Form 1575/DD Form 1575–1, DD Form 1576/DD Form 1576–1, DD Form 1577/DD Form 1577–1, and DD Form 1577–2/DD Form 1577–3**

*a.* Refer to chapter 3, for policies, procedures, and preparation instructions on how to complete the DD Form 1574/DD Form 1574–1, DD Form 1575/DD Form 1575–1, DD Form 1576/DD Form 1576–1, DD Form 1577/DD Form 1577–1, and DD Form 1577–2/DD Form 1577–3.

*b.* Preparation instructions (by block number and title) for completing a DA Form 2408–5 when used for Night Vision Goggles are listed below and the page number and total number (black lead pencil) of pages.

1. *Nomenclature.* Enter the item name (for example, ANVIS or NVG).

2. *Model* Enter the model of the NVG (for example, AN/PVS-5, AN/AVS-6(V)1, or GM-6(V)1).

*Aircraft serial number.* Enter the serial number of the NVGs.

3. *MWO number and date.*

*a.* Enter the MWO number in the upper part of this block. The activity applying the MWO will normally complete this block. MWO’s not applied will be entered by the person that determines that MWO was not applied.

*b.* Enter the MWO publication date (dd mmm yy), priority for the MWO (‘E’ for Emergency, ‘U’ for Urgent, or ‘R’ for Routine), and the maintenance level responsible for application of the MWO (‘O’ for AVUM, ‘F’ for AVIM, or ‘D’ for Depot) in the bottom part of this block.

5. *MWO title.* Enter the MWO abbreviated title.

6. *Organization applying MWO.* Enter the UIC or the name of the organization that applied the MWO, or determined that the MWO was previously applied. If an MWO is issued but not applied, enter the date the MWO must be applied by (black lead pencil). Erase the date when the MWO is applied. NOTE. Enter the MWO as overdue on DA Form

2408–30 if the MWO has not been applied by the due date.

7. *Name or PID.* The person who certifies the MWO application will enter their PID.

8. *Hours.* Enter the date (dd mmm yy) that the MWO was applied.

9. *Manhours.* Enter the actual manhours it took to apply the MWO, to the nearest tenth of an hour, including the technical inspection.

c. Preparation instructions (by block number and title) for completing a DA Form 2408–15, Historical Record for Aircraft, when used for Night Vision Goggles are listed below and enter the page number and total number in black lead pencil.

1. *Aircraft model.* Enter the model of the NVGs. For example, AN/PVS-5 or AN/AVS-6(v)1.

2. *Nomenclature.* Enter the item name, for example, Night Vision Goggles or ANVIS.

3. *Aircraft serial number.* Enter the serial number of the NVGs.

4. *Remarks.*

The historical data entries should include complete data on SOU messages, TBs, major repairs, replacement of image intensifier tubes with serial numbers, one time inspections, and installation of the LIF kit when installed by AVIM.

5. *Organization location.* Enter the name of the unit or organization and location of the unit that inspected, repaired, or overhauled the NVGs.

6. *Date.* Enter the date (dd mmm yy) the action was completed.

7. *Entry number.* Manual recordkeeping system, leave this block blank. ULLS-A users, entry is automatically entered.

8. *PID.* The person who verifies the maintenance action was completed or makes an entry will enter his or her Personal Identifier in this block.

d. Preparation instructions (by block number and title) for completion of a DA Form 2408–21 (Multiplace Life Raft Inspection and Maintenance Record) are listed below.

1. *RAFT type.* Enter the type of raft.

2. *RAFT serial no.* Enter the raft serial number. If the raft does not have a serial number, enter the locally assigned identification number.

3. *Accessory kit type.* Enter the type of accessory survival kit that is installed with the raft.

4. *KIT no.* Enter the serial number or locally assigned identification number of the accessory kit.

5. *Location.* Enter where the raft assembly is physically located (black lead pencil). For example, C-12A aircraft SN 7902468.

6. *RAFT manufacturer.* Enter the manufacturer's name

7. *Flare lot number.* Enter the lot number of the installed flares.

8. *Radio/PLB type.* Enter the type of radio or PLB installed.

9. *SDU.* Enter the type of SDU installed.

10. *CO2 Hydro test due.* Enter the date (dd mmm yy, black lead pencil) that the CO2 cylinder is due a hydrostatic test.

11. *RAFT dom.* Enter the date (dd mmm yy) the raft was manufactured.

12. *Date flares installed.* Enter the date (dd mmm yy, black lead pencil) the flares were installed in the raft.

13. *Radio/PLB battery expires.* Enter the date (dd mmm yy, black lead pencil) that the radio or PLB battery is due replacement.

14. *SDU battery expires.* Enter the expiration date (dd mmm yy, black lead pencil) of the SDU battery.

15. *Fire started lot/install.* Enter the lot number and date (dd mmm yy, black lead pencil) the fire starter is installed in the raft.

16. *Desalter dom.* Enter the date (dd mmm yy, black lead pencil) the desalter kit was manufactured.

17. *First aid kit due.* Enter the date (dd mmm yy, black lead pencil) the first aid kits are due inspections.

18. *Ration dom.* Enter the emergency rations date (dd mmm yy, black lead pencil) of manufacture.

19. *Distress kit lot/install.* Enter the lot number and the date (dd mmm yy, black lead pencil) the distress markers were installed in the raft kit.

20. *Initial issue date.* Enter the first issue date (dd mmm yy) of the raft.

21. *Installed components record.*

a. *Component.* List of all survival kit components installed in or attached to the raft.

b. *Quantity.*

*Req.*—Number of the components called for by the applicable supply publication.

*Auth.*—Number of the components authorized by the commander.

*O/H.*—Number of the components on hand, that are in or attached to the raft.

22. *Inspection record (repeating fields) (reverse side):*

a. *Type insp.* Enter the type of inspection called for in TM 5-4220-202-14.

b. *Date insp.* Enter date (dd mmm yy) the inspection in Block 22a was done.

c. *Date due.* Enter date (dd mmm yy) the next inspection is due.

d. *Initials/PID.* The person who did the inspection will enter their PID.

e. Preparation instructions (by block number and title) for completion of a DA Form 2408–22 (Helmet and Attached Equipment Inspection/Maintenance Record) are listed below and enter the page number and total number in black lead pencil.

1. *Name.* Enter the name of the person the helmet is assigned to. For float visor enter the unit's designated number for the visor.

2. *Rank.* Enter the rank of the person the helmet is assigned to. For float visor leave blank.

3. *Organization.* Enter the individual's organization. For float visor leave blank.

4. *Annual fitting.* Enter the date. Date. (dd mmm yy) of the annual fitting of the helmet and oxygen mask. For float visor leave blank.

5. *Helmet type.* Enter the helmet type. For float visor leave blank.

6. *Size.* Enter the helmet size. For float visor leave blank.

7. *Oxygen mask type.* Enter the type of the oxygen mask if installed. Enter ANVIS for the visor type.

8. *Size.* Enter the size of oxygen mask. For float visor leave blank.

9. *Helmet and oxygen mask/connector inspection record.*

a. *Inspection date.* Enter the date (dd mmm yy) of the last inspection of the helmet, visor, or oxygen mask.

b. *Remarks.* Enter faults for either helmet, visor, and/or the oxygen mask. If no faults enter 'Insp OK.' Enter in block 10, if maintenance is needed.

c. *Name.* The person who actually did the inspection will enter their PID.

d. *Next inspection due.* Enter the date (dd mmm yy) the next inspection is due.

10. *Helmet and mask repair data.*

a. *Date.* Enter the date (dd mmm yy) the manufacture, visor installation, or repair was completed.

b. *Initials.* The person who did the maintenance work will enter their PID.

c. *Component repair/replace.* Enter corrective action taken and list all repair parts/components used during the repair(s).

11. *Technical inspection.* (See TM 10-8415-206-13.)

a. *Date.* Enter date (dd mmm yy) of the technical inspection.

b. *Initials.* The person doing the inspection will enter his or her PID.

c. *Remarks.* Enter any significant historical information.

f. Preparation instructions (by block number and title) for completion of a DA Form 2408–23, Survival Radio/Emergency Locator Transmitter Inspection Record are listed below and enter the page number and total number with black lead pencil.

1. *Radio type.* Enter type of survival radio or emergency location transmitter. For example, AN-PRC-90 and URC-10.

2. *Radio serial no. manufacture date.* Enter the survival radio or ELT serial number, and date (dd mmm yy) of manufacture.

3. *National stock number.* Enter the NSN of the survival radio or ELT.

4. *Technical manual.* Enter the reference TM number.

5. *Battery type.* Enter the type of battery installed.

6. *Battery serial number.* Enter the battery serial number (black lead pencil).

7. *Battery lot number.* Enter the lot number (black lead pencil) of the battery installed.

8. *Battery manufacture date.* Enter the date (dd mmm yy, black lead pencil) the battery was manufactured.

9. *Inspection record.* (See TM 11-5820-800-13 #38; P)

a. *Due date.* Enter the date (dd mmm yy) the next inspection is due.

b. *Type inspection.* Enter the type of inspection completed.

c. *Date inspected.* Enter the date the inspection was completed.

d. *Initials.* The person making the inspection will put his or her PID here.

e. *Remarks.* Enter any significant historical information, including major repairs of the equipment.

g. Preparation instructions (by block number and title) for completion of a DA Form 2408-24 (Survival Kit/Vest Inspection and Maintenance Record). are listed below and if some items are not installed or blocks are not applicable (N/A), then leave blank and enter the page number and total number (black lead pencil) of pages.

1. *Kit type.* Enter the type of survival kit. For example, Rigid Seat Survival Kit (RSSK), hot climate, cold climate, or over water.

2. *Kit number.* Enter the kit serial number or locally assigned identification number.

3. *Location.* Enter the location of the kit (black lead pencil). For example, station 222, C-12A 7900468.

4. *Ammo lot no.* Enter the lot number of any installed ammunition.

5. *Flare lot no and flare type.* Enter the lot number and flare type of installed flares.

6. *National stock number.* Enter the NSN of the kit.

7. *Ration dom.* Enter the earliest manufacture date (dd mmm yy) of the installed emergency rations. For example, for a group of 12 cans of rations with the manufacture dates ranging from 12 Jun 89 through 14 Mar 90, date would be 12 Jun 89.

8. *First aid kit due.* Enter the date (dd mmm yy) the first aid kit is due inspection. Determined by the earliest due date of an item in the first aid kit.

9. *Ammo shelf life.* Enter the expiration date (dd mmm yy) of installed ammunition.

10. *Flare expiration date.* Enter the expiration date (dd mmm yy) of installed flares.

11. *Installed components record.*

a. *Component.* Enter the name of each item/component installed in the survival kit.

b. *Quantity req.* Enter the number of components called for in the supply publication that applies.

*Auth.* Enter the number of components prescribed by the commander to perform the mission.

*O/H.* Enter the number of components that are on hand in the survival kit.

12. *Maintenance and Inspection data.* (Reverse Side).

a. *Due date.* Enter the next inspection due date (dd mmm yy).

b. *Inspection date.* Enter the date (dd mmm yy) of the last inspection.

c. *Faults.* Enter the faults found during the inspection

d. *Corrective action.* Enter the actions taken to correct the faults.

e. *Initials.* The person performing the inspection and/or repairs will enter their PID.

h. Preparation instructions (by block number and title) for completion of a DA Form 2408-24 (Survival Kit/Vest Inspection and Maintenance Record) are listed below. If some items are not installed or blocks are not applicable (N/A), leave blank and enter the page number and total number with black lead pencil.

1. *Name.* Enter the name of the person to whom the vest is issued.

2. *Rank.* Enter the rank of the person the vest is issued to

3. *Location.* Enter where the survival vest is located. For example, the unit to which the aircraft is assigned.

4. *Size.* Enter the size of the survival vest.

5. *Installed component record.*

a. *Nomenclature.* Enter the name of each item/component installed in or attached to the vest.

b. *REQ.* Enter number of items called for by supply manuals that apply.

c. *Auth.* Enter number of items prescribed by the Commander.

d. *On hand.* Enter the number of the items presently installed in the vest.

6. *Radio and battery.*

a. *Type.* Enter type of radio, light marker, or other items installed in the vest with batteries.

b. *Serial number.* Enter serial number of radio, light marker, or other items and the year of manufacture of the equipment.

c. *Battery dom.* Enter the date (dd mmm yy) of manufacture of the installed battery.

7. *Weapon/ammo.*

a. *Type.* Enter type weapon/ammo installed in survival vest.

b. *Serial number.* Enter serial number of the weapon installed.

c. *Ammo lot number.* Enter the lot number and date (dd mmm yy) of manufacture of the ammo.

8. *Pyrotechnics.*

a. *Type.* Enter the type of pyrotechnics installed in survival vest. For example, signal kit, M1-185, and M-13.

b. *Lot number/date.* Enter lot number of the pyrotechnics and date (dd mmm yy) of manufacture.

c. *DOI.* Enter date (dd mmm yy) of issue. If not available, use date (dd mmm yy) the pyrotechnics were installed in the vest.

9. *First aid components.*

a. *Type.* Enter the type of each medical item in the first aid kit.

b. *Lot number.* Enter the lot number of each medical item in the first aid kit.

c. *Expiration date.* Enter the expiration date of each medical item in the first aid kit.

10. *Inspection data.* (Reverse Side) (See TM 55-1680-317-23, TM 11-5820-640-15, TM 11-5820-767-12, TM 11-5820-13&P, TM 9-1300-385-1, and TM 9-1300-385-2).

a. *Type of inspection.* Enter type of inspection performed. For example, initial, modification and 120 days.

b. *Date due.* Enter the date (dd mmm yy) the inspection is due.

c. *Date completed.* Enter the date (dd mmm yy) the inspection is completed.

d. *Initials or PID.* Enter the PID of the person who completed the inspection.

i. Preparation instructions (by block number and title) for completion of a DA Form 2408-27, Life Preserver Data are listed below.

1. *Type.* Enter the type of flotation unit. For example, LPU-2.

2. *ID no.* Enter the serial number of the life preserver. If not available, print the locally assigned identification number.

3. *Manufacturer and date.* Enter the manufacturer and date (dd mmm yy) of manufacture.
  - a. *Pack and harness.* Enter the type of pack and harness that applies.
  - b. *R cell S/N - MFG.* Enter serial number of the right cell, name of manufacturer, and date of manufacture.
  - c. *L cell S/N - MFG.* Enter serial number of the left cell, name of manufacturer, and date of manufacture.
4. *Remarks.* Enter any significant historical data, such as, harness repair, modification, and so on.
5. *CO2 inflation test.*

*Tested by.* The person performing the inflation test will sign his or her name.

*Date.* Enter the date (dd mmm yy) the inflation test was done.
6. *Inspection record (reverse side)*
  - a. *Date insp.* Enter the date (dd mmm yy) the life preserver was inspected.
  - b. *Date due.* Enter the date (dd mmm yy) the next inspection is due on the life preserver.
  - c. *Inspector's signature and rank.* The inspector who did the inspection will enter his or her PID and rank.

j. Preparation instructions (by block number and title) for completion of a DA Form 2408-28, Oxygen Console Service Record are listed below.

  1. *Console type or model.* Enter the console model number, name, or type.
  2. *Part number.* Enter the console part number, from the data plate, on the console.
  3. *Serial number.* Enter the console serial number, from the data plate, on the console.
  4. *Oxygen service.*
    - a. *Status.* Enter the status; for example, red diagonal, Red 'X,' and so on. When the discrepancy is cleared the person doing the work will place last name initial over status symbol. When the status symbol is a red 'X' or circle red 'X' the person that makes the quality control inspection will place last name initial over the status symbol.
    - b. *Sys-PSI.* Enter the pounds per square inch reading after servicing.
    - c. *Date cert svc bl.* Enter date (dd mmm yy) the console is filled to capacity and in a totally serviceable condition.
    - d. *PID.* The person checking or performing oxygen service will enter their PID.
  5. *Oxygen cylinder hydrostatic test due.* Enter the date (dd mmm yy, black lead pencil) the oxygen cylinder(s) must be removed for hydrostatic test.
  6. *Accessories.*
    - a. *Component and serial number.* List all components and their serial numbers for the oxygen system.
    - b. *REQ.* Enter the number of components called for by the supply manual.
    - c. *Auth.* Enter the number called for by the Commander.
    - d. *O/H.* Enter the number of components presently on hand.
    - e. *Insp CYCL.* Enter the frequency of the inspection cycle, for example, 30 day (see TM 55-1660-243-12).
  4. *Time chg due.* Enter the date (dd mmm yy) the component's operational time will expire and will be removed from service. If N/A leave blank.
  - g. *Local use.* Use this column as directed locally.
  7. *Inspection data.* (Reverse Side) (See TM 55-1660-243-12).
    - a. *Type insp/test.* Enter the type of inspection or test. For example, periodic, oxygen flow test, or leak test.
    - b. *Date insp.* Enter the date (dd mmm yy) of inspection or test completion.
    - c. *Date due.* Enter the date (dd mmm yy) the next inspection or test is due.
    - d. *Initials or PID.* The person who did the inspection or test will enter their PID.
  8. *Repair/MWO data.*
    - a. *Discrepancy.* Enter a brief description of the fault or MWO to be applied.
    - b. *Date corr.* Enter the date (dd mmm yy) the fault was fixed and cleared, or MWO was applied.
    - c. *Initials or PID.* The person who did the maintenance work or the MWO and form entries, will enter their PID.

k. Preparation instructions (by block numbers and title) for completion of a DA Form 2408-29, Anti-Exposure Coveralls Inspection Record are listed below.

  1. *Type.* Enter the type of anti-exposure coveralls.
  2. *Serial number.* Enter the serial number. If no serial number enter the locally assigned identification number.
  3. *Location.* Enter the name (black lead pencil) of the air crewmember to whom the equipment is assigned. In case of 16/P, enter aircraft serial number where coveralls will be used. Aircraft serial numbers will have seven numerical digits.
  4. *Leak test due date.* Enter the date (dd mmm yy, black lead pencil) the next leak test is due.
  5. *Size.* Enter the coverall's size. In case of 16/P, enter 'quick donning.'
  6. *Inspection.* (See TM 10-8475-200-13 and TM 10-8475-202-13.)
    - a. *Date due.* Enter the date (dd mmm yy) the inspection is due.
    - b. *Date insp.* Enter the date (dd mmm yy) the inspection was completed.
    - c. *Initials/PID.* The person who did the inspection will enter their PID.
  7. *Maintenance data.*

- a. *Fault.* Enter all faults found during inspections or tests.
- b. *Corrective action.* Enter corrective actions to fix the faults.
- 8. *Remarks.* (Reverse Side). Enter any significant historical data, including major repair of coveralls, date of completion, and significant historic events. The person entering the remarks will enter the name and location of the activity that did the maintenance work, and enter their PID, organization, and location.

l. Preparation instructions (by block title) for completion of a DA Form 2408–30 are listed below.

- 1. *Nomenclature.* Enter the item name, for example, NVG.
- 2. *Model.* Enter the model number, for example, AN/PVS-5A.
- 3. *Serial number.* Enter the serial number of the item.
- 4. *NSN.* Enter the national stock number of the item.
- 5. *UIC.* Enter the unit identification code for the unit or activity that maintains the item.
- 6. *Next inspection due.* Enter the type of inspections and the next date (black lead pencil) due for each inspection. The three month PMCS due date will be changed only if a three month PMCS is performed early, which may require a second three month PMCS to be performed inside the scheduled six month service window. The 6-month service window is closed upon completion of the service and a new one is started. The use of transparent tape is authorized and must be of the type you can print on with a pencil.

*Part I—Fault Information.*

*Status.* Enter the status symbol that applies to the fault or maintenance action in the Fault/Remarks Section. Once a status symbol is in the Status Block, it will not be erased or changed even if in error (see para 1–8). The person who corrects a red 'dash' or red diagonal fault will enter their last name initial over the status symbol. A red 'X' or circled red 'X' status symbol will be initialed (blue/black ink ballpoint pen) over by a TI.

*Sys.* Leave blank at this time.

*Date.* Enter the date (dd mmm yy) the fault was discovered or a remark is made.

*No.* Leave blank at this time.

*Time.* Enter the time of day (24-hour clock) the fault was discovered, for example, 0930 or 1425.

*PID.* Leave blank at this time.

*Fault/remark.* Enter a short description of the fault or maintenance, checks, services, or other inspections. The person who makes the entry will sign their name behind the entry. If more space is needed to enter a fault/remark then enter 'Continued' on the last line of the Fault/Remark Section and continue in the next open Fault/Remark Section.

*Aircraft hrs.* Leave blank at this time.

*When disc.* Leave blank at this time.

*How rec.* Leave blank at this time.

*MAL EFF.* Leave blank at this time.

*WUC.* Leave blank at this time.

*W.O.* Enter the work order number from the DA Form 2407 or PC work request. If none, leave blank.

*REQ.* Enter the supply requisition number if a part is ordered. If none, leave blank.

*Other.* Leave blank at this time.

*Part II—Correcting Information*

*Date.* Enter date (dd mmm yy) the fault was corrected.

*Time.* Enter the time (24-hour clock) the fault was corrected, for example, 0930 or 1425.

*Hours.* Leave blank at this time.

*Action code.* Leave blank at this time.

*WUC.* Leave blank at this time.

*Action.* Enter a short description of the action taken to correct the fault or maintenance, checks, services, or other inspections. The person who corrects the fault or completes the checks, services or other inspections will sign his or her name. Examples of what can be entered are:

a. *Left tube shaded.* 'Tube replaced,' 'Replaced,' and ' Repl tube.'

b. *120 day visor insp due 28 October 1991.* 'Compl,' and 'Insp compl'.

c. *Distortion in left tube.* 'Distortion evaluation completed, released for flight.'

*PID.* Leave blank at this time.

*Hours.* Leave blank at this time.

*PID.* Leave blank at this time.

*CMH.* Leave blank at this time.

*OMH.* Leave blank at this time.

*FMH.* Leave blank at this time.

*DMH.* Leave blank at this time.



*TIPID.* Use if the fault is a red 'X' or circled red 'X,' otherwise leave blank. The TI that verifies the corrective action and completion of the MOC will enter their signature in this block.

*TI manhours.* Leave blank at this time.

7. *NVG operational hours.* (Reverse Side)

a. *Current.* Leave blank at this time, unless the ACOM, ASCC, and DRU has directed the NVG usage time be tracked.

b. *Today.* Leave blank at this time, unless the ACOM, ASCC, and DRU has directed the NVG usage time be tracked.

c. *Total.* Leave blank at this time, unless the ACOM, ASCC, and DRU has directed the NVG usage time be tracked.

## **Appendix A References**

### **Section I Required Publications**

#### **AR 95-1**

Flight Regulations (Prescribed in paras 1-24, table 1-1, 2-3, fig 2-8, legend, 3-2, and 5-7.)

#### **AR 95-23**

Unmanned Aircraft System Flight Regulations (Cited in paras 1-24, table 1-1, 2-3, fig 2-8, legend, and 3-2.)

#### **AR 700-138**

Army Logistics Readiness and Sustainability (Cited in para 3-9.)

#### **AR 750-1**

Army Material Maintenance Policy (Cited in paras 1-23, 3-2, 3-9, and 4-16.)

#### **TB 1-1500-341-01**

Aircraft Components Requiring Maintenance Management and Historical Data Reports (Cited in paras 1-12, 1-13, 1-17, 1-18, 1-18, 1-22, 1-27, table 1-15, table 1-16, fig 2-8, 3-3, 3-9, 3-11, 3-11, 3-12, 3-16, 3-18, 3-20, 3-21, 3-22, 3-23, 3-24, 4-4, 4-7, 4-8, 4-9, 4-17, and terms.)

#### **TM 1-1500-328-23**

Technical Manual Aeronautical Equipment Maintenance Management Policies and Procedures (Cited in paras 1-8, 1-19, 1-23, table 1-1, table 1-15, table 1-16, 2-11, 3-17, 3-18, 3-23, 4-7, 4-8, 4-9, and 4-17, .)

### **Section II Related Publications**

A related publication is a source of additional information. The user does not have to read it to understand this publication.

#### **AISM 25-L3P-AWD-ZZZ-EM**

ULLS-Aviation End User Manual

#### **AR 25-30**

The Army Publishing Program

#### **AR 25-52**

Authorized Abbreviations, Brevity Codes, and Acronyms

#### **AR 25-55**

The Department of the Army Freedom of Information Act Program

#### **AR 71-32**

Force Development and Documentation

#### **AR 380-5**

Department of the Army Information Security Program

#### **AR 385-10**

The Army Safety Program

#### **AR 672-20**

Incentive Awards

#### **AR 700-4**

Logistics Assistance

**AR 700-139**

Army Warranty Program

**AR 710-1**

Centralized Inventory Management of the Army Supply System

**AR 710-2**

Supply Policy Below the Wholesale Level

**AR 710-3**

Inventory Management Asset and Transaction Reporting System

**AR 725-50**

Requisition, Receipt, and Issue System

**AR 735-5**

Property Accountability Policies

**AR 750-10**

Army Modification Program

**AR 750-43**

Army Test, Measurement, and Diagnostic Equipment

**DA Pam 385-40**

Army Accident Investigation and Reporting

**DA Pam 710-2-1**

Using Unit Supply System (Manual Procedures)

**DA Pam 750-8**

The Army Maintenance Management System (TAMMS) Users Manual

**DOD 4160.21-M**

Defense Materiel Disposition Manual (Available at [http://www.dtic/mil/whs/directives/.](http://www.dtic/mil/whs/directives/))

**TB 1-2840-248-20-2**

One Time Inspection and Conversion of Forms and Records for T700-GE-700, -701 and -701C Series Gas Turbine Engines

**TB 55-1520-238-23**

AH-64A Components Requiring Maintenance Management and Historical Data

**TB 750-25**

Maintenance of Supplies and Equipment: Army Test, Measurement and Diagnostic Equipment (TMDE) Calibration and Repair Support (C&RS)

**TM 10-8415-206-12&#38;P**

Operator, Organizational and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) Helmet, Flying, Protective (Model SPH-4, Regular) (NSN 8415-00-144-4981) and (Model SPH-4, Extra Large) (NSN 8415-00-144-4985)

**TM 10-8475-200-13**

Use, Inspection, Fitting and Maintenance Inspections for Anti-Exposure Assembly, Type CWU-21/P (TO 14P3.5.8)

**TM 10-8475-202-13**

Operation, Service and Maintenance Inspections for Quick Donning Anti-Exposure Flying Coverall, Type CWU-16/P

**TM 11-5820-640-15**

Operator's, Organizational, Direct Support, General Support, and Depot Maintenance Manual: Radio Sets, AN/URC-10, AN/URC-10A and ACR RT-10

**TM 11-5820-767-12**

Operators and Organizational Maintenance Manual: Radio Set AN/URC-90 (NSN 5820-00-832-9158)

**TM 11-5820-800-13&#38;P**

Operators and Organizational Maintenance Manual (Including Repair Parts and Special Tools List): Radio Set, AN/PRC-90 (NSN 5820-00-782-5308)

**TM 11-5855-263-23&#38;P**

Aviation Unit and Direct Support Maintenance Manual, Aviation Night Vision Imaging System AN/AVS-6(V)1 and AN/AVS-6(V)2

**TM 11-5855-238-23&#38;P**

Unit Maintenance Manual, Night Vision Goggles AN/PVS-5 (NSN 5855-00-150-1820), AN/PVS-5B (NSN 5855-01-228-0938), AN/PVS-5C (NSN 5855-01-228-0936)

**TM 38-L09-11**

Functional Users Manual for Maintenance Reporting and Management (MRN)

**TM 55-1500 and TM 55-1520 series**

Maintenance Inspection Checklist

**TM 55-1520-342-23**

Army Aviation Maintenance Engineering Manual For Weight and Balance

**TM 55-1660-247-12**

Operation, Fitting, Inspection and Maintenance with Illustrated Parts Breakdown for MBU-12P Pressure-Demand Oxygen Mask Part No. 834-75-01 (NSN 1660-01-081-9157LS), 834-75-02 (NSN 1660-01-073-7595LS), 834-75-03 (NSN 1660-01-073-7596LS), AND 834-75-04 (NSN 1660-01-081-2366LS) (to 15X5-3-6)

**TM 55-1680-317-23&#38;P**

Aviation Unit and Aviation Intermediate Manual with Repair Parts and Special Tools List for Army Aircraft Survival Kits

**Section III**

**Prescribed Forms**

Unless otherwise indicated below, DA Forms are available at the APD Web site <http://www.apd.army.mil>. DD Forms are available at the DOD Forms Management Web site at <http://www.dtic.mil/whs/directives/infomgt/forms>.

**DA Form 2402**

Maintenance Tag (Prescribed in para 3-4.) (Available through normal forms supply channels).

**DA Form 2405**

Maintenance Request Register (Prescribed in paras 1-25, 3-8.)

**DA Form 2407**

Maintenance Request (Prescribed in paras 1-25, 1-26, 1-28, table 1-11, table 1-18, 1-19, 3-4, 3-7, 3-8, 3-9, table 3-7, 4-3, 1-6, 3-9, 5-1, 5-2, 5-13, and terms.) (Available through normal forms supply channels).

**DA Form 2407-1**

Maintenance Request Continuation Sheet (Prescribed in para 3-11.) (Available through normal forms supply channels).

**DA Form 2408**

Equipment Log Assembly (Records) (Prescribed in para 2-3.)

**DA Form 2408-4-1**

Weapon Record Data (Prescribed in para 2-5.)

**DA Form 2408-4-2**

Weapon Sighting Data (OH-58D) (Prescribed in para 2-6.)

**DA Form 2408-4-3**

Weapon Sighting Data (AH-64A) (Prescribed in para 2-7.)

**DA Form 2408-4-4**

Weapon Sighting Data (AH-64)

**DA Form 2408-5**

Equipment Modification Record (Prescribed in paras 4-3, 5-3.)

**DA Form 2408-5-1**

Equipment Modification Record (Component) (Prescribed in para 4-4.)

**DA Form 2408-12**

Army Aviator's Flight Record (Prescribed in para 2-9.)

**DA Form 2408-13**

Aircraft Status Information Record (Prescribed in para 2-10.)

**DA Form 2408-13-1**

Aircraft Inspection and Maintenance Record (Prescribed in para 2-11.)

**DA Form 2408-13-2**

Related Maintenance Actions Record (Prescribed in para 2-11.)

**DA Form 2408-13-3**

Aircraft Technical Inspection Worksheet (Prescribed in para 3-9.)

**DA Form 2408-14-1**

Uncorrected Fault Record (Aircraft) (Prescribed in para 2-13.)

**DA Form 2408-15**

Historical Record for Aircraft (Prescribed in paras 4-5, 5-4.)

**DA Form 2408-15-2**

Aircraft Vibration Record (Prescribed in para 4-6.)

**DA Form 2408-16**

Aircraft Component Historical Record (Prescribed in para 4-7.)

**DA Form 2408-16-1**

History Recorder, Component, Module Record (Prescribed in para 4-8.)

**DA Form 2408-16-2**

Auxiliary Power Unit and Component Record

**DA Form 2408-17**

Aircraft Inventory Record (Prescribed in para 4-10.)

**DA Form 2408-18**

Equipment Inspection List (Prescribed in para 2-14.)

**DA Form 2408-19**

Aircraft Engine Turbine Wheel Historical Record (Prescribed in para 4-11.)

**DA Form 2408-19-1**

T53/T55 Turbine Engine Analysis Check Record (Prescribed in para 4-11.)

**DA Form 2408-19-2**

T700 Series Turbine Engine Analysis Check Record (Prescribed in para 4-12.)

**DA Form 2408-19-3**

Engine Component Operating Hours Record (Prescribed in para 4-14.)

**DA Form 2408-19-4**

Engine Power Assurance Test Record

**DA Form 2408-20**

Oil Analysis Log (Prescribed in para 4-16.)

**DA Form 2408-21**

Multiplace Life Raft Inspection and Maintenance Record (Prescribed in para 5-5.)

**DA Form 2408-22**

Helmet and Attached Equipment Inspection/Maintenance Record (Prescribed in para 5-6.)

**DA Form 2408-23**

Survival Radio/Emergency Locator Transmitter Inspection Record (Prescribed in para 5-7.)

**DA Form 2408-24**

Survival Kit/Vest Inspection and Maintenance Record (Prescribed in para 5-8.)

**DA Form 2408-27**

Life Preserver Data (Prescribed in para 5-11.)

**DA Form 2408-28**

Oxygen Console Service Record (Prescribed in para 5-12.)

**DA Form 2408-29**

Anti-Exposure Coveralls Inspection Record (Prescribed in para 5-13.)

**DA Form 2408-30**

NVG Inspection and Maintenance Record (Prescribed in para 5-14.)

**DA Form 2408-31**

Aircraft Identification Card (Prescribed in para 2-4.)

**DA Form 2408-33**

Meter Tracked Component Record (Prescribed in para 4-15.)

**DA Form 2408-34**

OH-58D Side/Transverse Roof Beam Record (Prescribed in para 4-18.)

**DA Form 2410**

Component Removal/Repair/Install/Gain/Loss Record (Prescribed in paras 3-13, 3-14, 3-15, 3-16, 3-17, 3-18, and 3-19.)

**DD Form 1574**

Serviceable Tag-Materiel (Prescribed in para 3-22.) (Available through normal forms supply channels).

**DD Form 1574-1**

Serviceable Label-Materiel (Prescribed in para 3-22.) (Available through normal forms supply channels).

**DD Form 1575**

Suspended Tag-Materiel (Prescribed in para 3-21.) (Available through normal forms supply channels).

**DD Form 1575-1**

Suspended Label-Materiel (Prescribed in para 3-21.) (Available through normal forms supply channels).

**DD Form 1576**

Test/Modification Tag-Materiel (Prescribed in para 3-22.) (Available through normal forms supply channels).

**DD Form 1576-1**

Test/Modification Label-Materiel (Prescribed in para 3-22.) (Available through normal forms supply channels).

**DD Form 1577**

Unserviceable (Condemned) Tag-Materiel (Prescribed in para 3-23.) (Available through normal forms supply channels).

**DD Form 1577-1**

Unserviceable (Condemned) Label-Materiel (Prescribed in para 3-23.) (Available through normal forms supply channels).

**DD Form 1577-2**

Unserviceable (Reparable) Tag-Materiel (Prescribed in para 3-24.) (Available through normal forms supply channels).

**DD Form 1577-3**

Unserviceable (Reparable) Label-Materiel (Prescribed in para 3-24.) (Available through normal forms supply channels).

**Section IV****Referenced Forms**

Unless otherwise indicated below, DA Forms are available at the APD Web site (<http://www.apd.army.mil>). DD Forms are available at the DOD Forms Management Web site at <http://www.dtic.mil/whs/directives/infomgt/forms>. SFs are available on the GSA Web site (<http://www.gsa.gov/portal/forms/type/SF>).

**DA Form 364**

Product Quality Deficiency Report

**DA Form 1352**

Army Aircraft Inventory, Status and Flying Time

**DA Form 1687**

Notice of Delegation of Authority-Receipt for Supplies

**DA Form 2028**

Recommended Changes to Publications and Blank Forms

**DA Form 2765-1**

Request for Issue or Turn-In

**DD Form 250**

Material Inspection and Receiving Report

**DD Form 361**

Transportation Discrepancy Report (TDR)

**DD Form 365-1**

Chart A - Basic Weight Checklist Record

**DD Form 365-2**

Form B - Aircraft Weighing Record

**DD Form 365-3**

Chart C-Basic Weight and Balance Record

**DD Form 365-4**

Weight and Balance Clearance Form F-Transport

**DD Form 1149**  
Requisition and Invoice/Shipping Document

**DD Form 1348-1A**  
Issue Release/Receipt Document

**DD Form 1348-2**  
Issue Release/Receipt Document With Address Label

**DD Form 1896**  
DOD Fuel Identaplate (Stocked and Issued through DARCOM).

**DD Form 2332**  
Product Quality Deficiency Report Exhibit (Available through normal forms supply channels).

**SF 364**  
Report of Discrepancy (ROD)

**SF Form 368**  
Product Quality Deficiency Report (PQDR)

## **Appendix B** **Nuclear, Biological, and Chemical Detection-Decontamination Documentation Procedures**

Aircraft, UAS, aviation-associated equipment, or other aeronautical equipment suspected of being contaminated with nuclear, biological, or chemical materiel shall follow the steps below to decontaminate the equipment. See table B-1 for nuclear, biological, and chemical detection-decontamination documentation procedures.

**Table B-1**  
**Nuclear, Biological, and Chemical Detection-Decontamination Documentation Procedures**

Step	If—	Then—
1	An aircraft, UAS or aeronautical equipment is suspected to have been contaminated.	A security police team will establish a cordon around the aircraft.
2	Isolated parking is necessary. A security police team will secure the area and the organization section.	The pilot and/or operator shall advise the tower of the known or suspected contamination and shall request that isolated parking be provided for the aircraft.
3		The ground crew and maintenance personnel shall not approach the aircraft, or begin servicing or any maintenance until after the aircraft is completely inspected and if necessary decontaminated.
4		The detection team will perform detection per prescribed procedures to determine the type, amount, and location of contamination.
5		The detection team supervisor shall direct maintenance personnel to enter the circled N, B, or C on the DA Form 2408-13 and DA Form 2408-13-1 and describe the extent of the contamination.
6		If an aircraft component or part cannot be decontaminated, the component or part shall be removed and disposed of as contaminated waste.
7	Contamination occurs with a chemical agent.	A special entry shall be made on the DA Form 2408-18 to show that a special detection re-inspection is required at the next three scheduled hourly post flight, periodic, phase, or other scheduled inspections.



**Table B-1  
Nuclear, Biological, and Chemical Detection-Decontamination Documentation Procedures—Continued**

Step	If—	Then—
8	The aircraft has been decontaminated.	The decontamination team chief shall enter the corrective action in the Correcting Information block of the DA Form 2408-13-1 and shall enter his or her signature following this entry. The team chief shall then place their last name initial over the symbol in the status block of the Fault Information Block on the DA Form 2408-13-1 that applies.
9		Maintenance personnel shall perform corrosion control as required, since some decontaminates are highly corrosive.
10		Maintenance personnel shall make an entry on the DA Form 2408-15 to describe the type and extent of contamination, the unclassified designator of the contaminant involved, and decontaminates used.
11	The local commander shall establish necessary administrative procedures related to accomplishing decontamination of the aircraft.	Controls shall be set up to assure that unauthorized personnel do not enter the isolated area until required decontamination has been completed.
12		Establish a plan to show isolated areas and procedures to provide maintenance guidance and/or assistance to the decontamination team.
13		Qualified personnel shall assure required decontamination is accomplished and verified.
14		Return the aircraft to service after decontamination has been performed.

## Appendix C Supply Condition Codes

### C-1. Codes

The supply condition codes are to describe the condition of materiel.

### C-2. Forms to use

The codes shall be used on DA Form 2408-13-1, DA Form 2410, DD Form 1574, DD Form 1574-1, DD Form 1575, DD Form 1575-1, DD Form 1576, DD Form 1576-1, DD Form 1577, DD Form 1577-1, DD Form 1577-2, and DD Form 1577-3.

**Table C-1  
Supply condition codes**

Code	Title	Explanation
A	Serviceable (issuable without qualification).	New, used, or repaired materiel that is serviceable and issuable to all customers without limitation or restriction. Includes materiel with more than 6 months' shelf life remaining.
B	Serviceable (issuable without qualification)	New, used, or repaired materiel that is serviceable and issuable for its intended purpose. However, it is restricted from issue to specific units, activities, or geographical areas because of its limited usefulness or short service life expectancy. Includes materiel with 3 through 6 months' shelf life remaining.
C	Serviceable (priority issue).	Items that are serviceable and issuable to selected customers, but must be issued, when feasible, before condition A and B materiel to avoid loss as a usable asset. Includes materiel with less than 3 months' shelf life remaining.
D	Serviceable (test/modification).	Serviceable items that require test, alteration, modification, conversion, or disassembly.
E	Unserviceable (limited restoration).	Items that involve only limited expense or efforts to restore to serviceable condition. This is done in the storage activity.
F	Unserviceable (reparable).	Economically reparable items that need repair, or overhaul.

**Table C-1**  
**Supply condition codes—Continued**

Code	Title	Explanation
G	Unserviceable (incomplete).	Items that need other parts or components to complete the end item before issue.
H	Unserviceable (condemned).	Items that are unserviceable and do not meet repair criteria, contain no components or assemblies to be reclaimed, and are of no value to the Government except for material content.
J	Suspended (in stock).	Items in stock that have been suspended from issue pending condition classification or analysis, when the true condition is not known.
K	Suspended (returns).	Items returned from customers and users suspended from issue pending inspection and condition classification.
L	Suspended (litigation).	Items held pending litigation or negotiation with contractors common carriers. Includes shipments with shortages, overages, defects, or other conditions that call for negotiation or litigation.
M	Suspended (in work).	Items on inventory control record but that have been delivered and accepted by an Army or DOD maintenance facility or a contractor's plant for processing.
N	Suspended (ammunition suitable for emergency combat use only).	Ammunition stocks suspended from issue except for emergency combat use.
P	Unserviceable (reclamation).	Items that are unserviceable, uneconomically reparable because of physical inspection, tear down, or engineering decision, item contains serviceable components or assemblies that may be reclaimed.
R	Suspended (reclaimed items, awaiting condition determination).	Assets turned in by reclamation activities that do not have the capability (for example, skills, personnel, or test equipment) to determine the material condition. Actual condition will be determined before induction into maintenance activities for repair/modification.
S	Unserviceable (Scrap).	Items that have no value except for its basic material content. No stock will be recorded as on hand in condition code S. This is used only on transactions that involve shipments to DRMOs.
W	Unserviceable (warranted reparable)	Materiel under contract warrant that requires repair, overhaul, reconditioning, or replacement. Includes reparable items that are radioactively contaminated.

**Appendix D**  
**Department of the Army list of Aircraft and Aviation Associated Equipment on which forms and records are to be maintained**

This appendix provides a list of aviation equipment and specifies the DA Forms on which data will be recorded, maintained, and/or sent through command designated data reduction centers to LOGSA and AMCOM. See figures D-1 through D-9 for fixed-wing aircraft, helicopters, helicopters and aviation equipment, UAS MQ-5B, UAS RQ-7B, UAS MQ-1C, and life support equipment codes.

EQUIPMENT CATEGORY CODE	2408																								END ITEM CODE				
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		3	3	X	
	0	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9	9	9	0		1	3		
8	1	2	3	X	1																								
FIXED WING UTILITY/CARGO																													
C-12C	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	SCB		
C-12D	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	SCC		
C-12J	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-12R	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-12U	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-12V	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-20E	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-20F	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-23C	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-26B	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-26E	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-31A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-37A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
C-37B	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
UC-35A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
UC-35B	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
UV-18A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

Figure D-1. Sample of fixed-wing utility and/or cargo codes

EQUIPMENT CATEGORY CODE	2408																								END ITEM CODE				
	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-		
	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		3	3	X	
	0	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9	9	9	0		1	3		
8	1	2	3	X	1																								
FIXED WING RECONNAISSANCE																													
EO-5B	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
EO-5C	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
TO-5C	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
RC-12D	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	SCB		
RC-12G	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	SCC		
RC-12H	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
RC-12K	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
RC-12N	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
RC-12P	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
RC-12X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			

Figure D-2. Sample of fixed-wing reconnaissance codes

EQUIPMENT CATEGORY CODE	-																												END ITEM CODE				
	2	4	0	8	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		3	3	X	
	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9	9	9	9	9	9	9	0	1		3			
	1	2	3	X	1																												
ROTARY WING (STANDARD)																																	
ATTACK																																	
AH-64D	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RHB	
AH-64E	X	X			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ELECTRONIC COUNTER MEASURES																																	
EH-60A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSB	
OBSERVATION																																	
OH-58A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	ROA	
OH-58C	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	ROB	
OH-58D	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	ROC	
TRANSPORT																																	
CH-47D	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RCD	
CH-47F	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RCH	

Figure D-3. Sample of rotary wing (standard) and electronic counter measures codes

EQUIPMENT CATEGORY CODE	-																												END ITEM CODE				
	2	4	0	8	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		3	3	X	
	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9	9	9	9	9	9	9	0	1		3			
	1	2	3	X	1																												
UTILITY																																	
UH-60A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSA	
UH-60L	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSM	
UH-60M	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSP	
HH-60A	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSN	
HH-60L	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSI	
HH-60M	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSQ	
MODIFIED SPECIAL OPERATIONS																																	
MH-47G	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	OPY	
MH-60K	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	RSC	
MH-60L	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MH-60M	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Figure D-4. Sample of helicopters codes

Helicopters and aviation equipment																										END ITEM CODE													
EQUIPMENT CATEGORY CODE	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	END ITEM CODE		
	4	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3		END ITEM CODE	
	0	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	0	1	END ITEM CODE			
	8	1	2	3	X		1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-				END ITEM CODE
ROTARY WING (NON-STANDARD)																																							
TH-67A	X					X	X	X	X	X	X	X	X								X	X															X	X	
UH-1H	X					X	X	X	X	X	X	X	X	X		X					X	X	X	X											X	X	RUA		
UH-1V	X					X	X	X	X	X	X	X	X	X		X					X	X	X	X											X	X	RUE		
SIMULATOR																																							
2B24/UH-1	X					X	X	X	X	X	X	X	X								X															X	X	R9C	
2B31/CH-47D	X					X	X	X	X	X	X	X	X								X															X	X	R9B	
T-FPS/CH-47F	X					X	X	X	X	X	X	X	X								X															X	X		
2B47/MH-47G`	X					X	X	X	X	X	X	X	X								X															X	X		
2B38/UH-60A/L	X					X	X	X	X	X	X	X	X								X															X	X	R9E	
T-BOS/UH-60L/M	X					X	X	X	X	X	X	X	X								X															X	X		
2B46/MH-60K	X					X	X	X	X	X	X	X	X								X															X	X		
2B40/AH-64	X					X	X	X	X	X	X	X	X								X															X	X	R9D	
2B64/AH-64D	X					X	X	X	X	X	X	X	X								X															X	X		
ANCILLARY EQUIPMENT																																							
HOIST HIGH PERFORMANCE	X									X	X	X	X	X							X														X	***			

Figure D-5. Sample of helicopters and aviation equipment codes

Unmanned Aircraft System MQ-5B		END ITEM CODE 63U																								END ITEM CODE													
EQUIPMENT CATEGORY CODE	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	END ITEM CODE		
	4	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3	3	X		END ITEM CODE	
	0	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9			END ITEM CODE
	8	1	2	3	X		1			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Air Vehicle*	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	63C		
Ground Control Station	X					X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	63A		
Ground Data Terminal	X					X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	63B		
Launch & Recovery Terminal	X					X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	63B		

\*All logbook forms required during operation of an Air Vehicle will be maintained at the Ground Control Device.

Figure D-6. Sample of unmanned aircraft system HQ-5B

Unmanned Aircraft System RQ-7B EIC 62U																						END ITEM CODE			
EQUIPMENT CATEGORY CODE	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-		
	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2		3	3	X
	0	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9		9	0	1
	8	1	2	3	X	1																			
Air Vehicle*	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Ground Control Station	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Portable Ground Control Station	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Ground Data Terminal	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Portable Ground Data Terminal	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Launcher	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				
Tactical Automatic Landing System	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X				

\*All logbook forms required during operation of an Air Vehicle will be maintained at the Ground Control Device.

Figure D-7. Sample of unmanned aircraft system RQ-7B EIC 62 U codes

Unmanned Aircraft System MQ-1C EIC 64U																						END ITEM CODE				
EQUIPMENT CATEGORY CODE	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-		
	4	4	4	4	5	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		2	3	3	X
	0	-	-	-	-	-	2	3	3	3	4	5	5	6	6	6	7	8	9	9	9		9	0	1	3
	8	1	2	3	X	1																				
Air Vehicle*	X	X				X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Ground Control Station	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Portable Ground Control Station	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Ground Data Terminal	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Portable Ground Data Terminal	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
Automatic Takeoff & Landing System	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
SATCOM Ground Data Terminal	X					X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					

\*All logbook forms required during operation of an Air Vehicle will be maintained at the Ground Control Device.

Figure D-8. Sample of unmanned aircraft system MQ-1C EIC 64U codes

Life support equipment														END ITEM CODE
EQUIPMENT CATEGORY CODE	2	-	-	-	-	-	-	-	-	-	-	-	-	
	4	5	1	2	2	2	2	2	2	2	3			
	0	5	1	2	3	4	7	8	9	0				
	8													
AIRCRAFT LIFE SUPPORT EQUIPMENT														
Individual Environmental Equip	X	X	X									X		***
Helmet and Attached Equipment	X	X	X		X									***
Life Preserver Data	X	X	X						X					***
Multi-place Life Raft	X	X	X	X										***
Oxygen Console	X	X	X							X				***
Survival Radio/Emergency Locator Transmitter	X	X	X				X							***
Survival Kit/Vest	X	X	X						X					***
Aviator's Night Vision Imaging System	X	X	X									X		***

Figure D-9. Sample of life support equipment codes

## Appendix E

### List of Aircraft and their National Stock Numbers

The MDS and NSN for Army aircraft, helicopters, and UAS are shown in this appendix for easy reference when filling out DA Forms and records covered in this pamphlet.

**Table E-1**  
**List of aircraft and their national stock numbers**

Aircraft	NSN
AH-64D	1520-01-355-8250
AH-64E	1520-01-599-2203
C-12C	1510-01-070-3661
C-12D	1510-01-087-9129
C-12F	1510-01-235-5840
C-12L	1510-01-265-2043
CH-47D	1520-01-088-3669
EH-60A	1520-01-082-0686
MH-47E	1520-01-282-3747
MH-60K	1520-01-282-4051
OH-58A	1520-00-169-7137
OH-58C	1520-01-020-4216
OH-58D	1520-01-125-5476
MQ-1C	1550-01-569-8864
MQ-5B	1550-01-601-1335
RC-12D	1510-01-131-8262
RC-12H	1510-01-214-8354
RC-12N	1510-01-361-5016
RC-12P	1510-01-370-0805
RQ-7B	1550-01-534-3238
UC-35A	1510-01-428-8769
UC-35B	1510-01-486-8215
UH-1H	1520-00-087-7637
UH-1V	1520-01-043-4949
UH-60A	1520-01-035-0266
UH-60L	1520-01-298-4532
UH-60M	1520-01-492-6324
UV-18A	1510-01-011-1462
TH-67A	1520-01-385-3844

## **Glossary**

### **Section I Abbreviations**

**ALSE**

aviation life support equipment

**AMC**

U.S. Army Materiel Command

**AMDF**

Army Master Data File

**AMSS**

Army Materiel Status System

**AOAP**

Army Oil Analysis Program

**APU**

auxiliary power unit

**ARNGUS**

Army National Guard of the United States

**ASAM**

Aviation Safety Action Message

**AVCRAD**

aviation classification repair activity depot

**AVIM**

aviation intermediate maintenance

**AVUM**

aviation unit maintenance

**BDAR**

battle damage assessment and repair

**CAGE**

Contractor and Government Entity Code (Manufacturer's Code)

**CC**

condition change

**CCAD**

Corpus Christi Army Depot

**CDR**

commander

**CF**

carried forward

**CG**

center of gravity

**CL**

checklist



**DA**

Department of the Army

**DLR**

depot level reparable

**DMN**

document management number

**DMWR**

Depot Maintenance Work Requirement

**DOD**

Department of Defense

**DODAAC**

Department of Defense Activity Address Code

**DRMO**

Defense Reutilization and Marketing Office

**DSN**

Defense Switched Network

**EAWBS**

Ewards Automated Weight and Balance System

**ECP**

engineering change proposal

**EGT**

exhaust gas temperature

**EIC**

end item code

**EIR**

equipment improvement recommendation

**ELT**

emergency locator transmitter

**ETI**

elapsed time indicator

**FAA**

Federal Aviation Administration

**FAT**

free air temperature

**FCC**

fire control computer

**FMC**

fully mission capable

**FOD**

foreign object damage

**FOIA**

Freedom of Information Act

**HIT**

health indicator test

**HSF**

hot section factors

**ICAO**

International Civil Aviation Organization

**IPS**

inches per second

**LAR**

logistic assistance representative

**LAS**

Logbook Automated System

**LCF**

legitimate code file

**LIF**

light interface filter

**LOGSA**

Logistics Support Activity

**LRU**

line replaceable unit

**MAP**

Military Assistance Program

**MAOT**

Maximum Allowable Operating Time

**MARC**

manpower requirement criteria

**MDS**

mission, design, series

**MFP**

Materiel Fielding Plan

**MIM**

Maintenance Information Message

**MMC**

Materiel Management Center

**MMS**

mast mounted sight

**MOC**

maintenance operational check

**MR**

Milliradian

**MRM**

maintenance reporting and management

**MTA**

maintenance training airframe

**MTF**

maintenance test flight

**MWO**

modification work order

**NICP**

National Inventory Control Point

**NMC**

not mission capable

**NMCM**

not mission capable maintenance

**NMCS**

not mission capable supply

**NMP**

National Maintenance Point

**NOR**

notice of revision

**NRTS**

not repairable this station

**NSN**

national stock number

**NVG**

Night Vision Goggle(s)

**OAT**

outside air temperature

**ORF**

operational readiness float

**ORG WON**

organization work order

**PAC**

power assurance check

**PCW**

previously complied with

**PD**

priority designator

**PID**

personnel identifier

**PMC**

partial mission capable

**PMD**

preventive maintenance daily

**PMS**

preventive maintenance services

**PN**

part number

**PNVS**

pilot night vision sensor

**PPM**

progressive phase maintenance

**POMCUS**

repositioning of materiel configured to unit sets

**PQDR**

product quality deficiency report

**PSI**

pounds per square inch

**PTIT**

power turbine inlet temperature

**QC**

quality control

**RC**

retirement life component; replacement component

**RCF**

repair cycle float

**RCM**

reliability centered maintenance

**ROD**

report of discrepancy

**RPM**

revolutions per minute

**RX**

reparable exchange

**SAMS**

Standard Army Maintenance System

**SAILS**

Standard Army Intermediate Level Supply

**SAMIS**

Supply Accounting and Management Information System

**SARSS**

Standard Army Retail Supply System

**SFDLR**

Stock Funded Depot Level Repairable

**SMR**

source, maintenance, and recoverability

**SOF**

safety-of-flight

**SOU**

safety-of-use

**SSA**

Supply Support Activity

**SSAN**

social security account number

**STAMIS**

Standard Army Management Information System

**TADS**

target acquisition designation sight

**TB**

Technical Bulletin

**TBO**

time between overhaul

**TC**

time change

**TEAC**

Turbine Engine Analysis Check

**TGT**

turbine gas temperature

**TI**

technical inspector

**TIPID**

Technical Inspector Personnel Identifier

**TMDE**

test, measurement, and diagnostic equipment

**TM**

Technical Manual

**TRADOC**

U.S. Army Training and Doctrine Command

**TSN**

time since new

**TSO**

time since overhaul

**TTV**

Target Torque Value

**TWX**

Teletype (message)

**UAS**

Unmanned Aircraft System

**UIC**

unit identification code

**ULLS-A**

Unit Level Logistics System-Aviation

**WB**

weight and balance

**WNRC**

Washington National Records Center

**WOLF**

Work Order Logistics File

**WON**

work order number

**WUC**

work unit code

**Section II****Terms****Army aviation flight activity**

An Army National Guard TDA activity that provides AVUM level functions in support of Army National Guard aviation assets.

**Army aviation operating facility**

An Army National Guard TDA activity that provides AVUM level functions.

**Army aviation support facility**

An Army National Guard TDA maintenance activity that provides AVIM and AVCRAD authorized AVIM level functions to support Army National Guard aviation assets.

**Army Oil Analysis Program**

Part of a DOD-wide effort to detect impending equipment component failures and determine lubricant condition through on-line and laboratory evaluation of used oil samples.

**Army Oil Analysis Program Feedback**

Maintenance and disassembly inspection data regarding a oil sample from an engine or other major component or assembly furnished by the operating and maintenance activities to the Army Oil Analysis Program.

## **Assembly**

A combination of components or modules, and parts used as a portion of, and intended for installation in an aircraft or associated equipment end item; for example, engine, transmission, and rotor head.

## **Aviation classification and repair activity depot**

An Army National Guard TDA maintenance activity that provides AVIM and authorized depot level functions.

## **Aviation-associated equipment**

Aviation-associated equipment or 'aviation equipment' or "equipment" are used frequently in this pamphlet and other maintenance technical manuals for ease of writing and reading prescribed procedures and instructions. In most instances the term will be construed to mean related mission equipment, such as, armament systems, electronic and other equipment, night vision goggles, aircraft training devices, simulators and aviation life support equipment managed by AMCOM. The term will also refer to uninstalled assemblies, subassemblies, and components/modules that are being processed within intermediate or depot support maintenance shops/activities.

## **Aviation life support equipment**

The equipment used in case of flight operation emergencies to lend support to make it possible for aircrew members and passengers of Army aircraft to endure and to complete assigned mission. ALSE is used in case of in-flight and other crises to aid and support occupants of aircraft in survival. It is used to provide ways of safe and sure escape, descent, and recovery during life threatening situations.

## **Calibration**

The comparison of an instrument (measurement standard or item of test, measurement, and diagnostic equipment) of unverified accuracy with an instrument of known and greater accuracy to detect and correct any discrepancy in the accuracy of the unverified instrument.

## **Commander**

A person of the armed forces with vested authority to direct, coordinate, and control military forces of a unit/aviation maintenance activity. The commander will-

- a. Be held accountable for the safety of all personnel under his/her control and the status of aircraft and equipment.
- b. Emphasize the importance of maintenance and ensure that subordinates are held accountable for the conduct of aviation equipment maintenance operations.
- c. Provide leadership, technical supervision, and management control of aviation equipment maintenance program.
- d. Emphasize the conduct and supervision of preventive maintenance checks and services performed at the unit level; preventive maintenance and repair at intermediate level; and repair, overhaul, or rebuild maintenance at depot level.
- e. Establish, maintain, and conduct training of leaders in the maintenance organization to properly supervise maintenance operations and to motivate subordinates to properly and safely use and maintain aviation equipment.
- f. Recommend improvements of the Army aviation maintenance system.
- g. Ensure that the submission of deficiency reports is prepared and submitted per chapter 3 of this pamphlet.
- h. Establish an aggressive awards program for air crewmembers and aviation maintenance/quality control personnel.

## **Component and/or module**

A combination of parts mounted together during manufacture that may be tested, repaired, or replaced as a unit; for example, starter, generator, fuel pump, line replaceable unit, printed circuit board. The term "module" is normally associated with electronic equipment or major components of T700 series gas turbine engines.

## **Component overhaul**

Sustainment facility (depot) level maintenance performed to restore a TC item, with a specific time between overhaul assigned, to a serviceable condition as prescribed in the appropriate DMWR. The item is subjected to a complete disassembly and inspection. All defective or excessively worn parts are replaced with new or recapped items. This action shall "zero" time since overhaul, but time since new shall not change.

## **Component Rebuild**

Depot or contractor maintenance performed to restore an item to a like new condition in appearance, performance, and life expectancy. This is done by complete disassembly, inspection, and replacing all worn and unserviceable elements with new parts or parts that have been reworked to original manufacturing specifications. When an item is rebuilt it starts a new life cycle. This action will 'zero' time since new, time since overhaul, and number of previous overhauls.

## **Component repair**

Maintenance performed to restore a TC, RC, or CC item to serviceable condition by correcting a specific failure or

unserviceable condition. This allows a TC or RC item to complete its TBO and/or MAOT cycle. These actions shall not “zero” time since new or time since overhaul.

### **Condition Change Item**

An item that is changed or repaired on an as-needed basis or when it fails. This item does not have a TBO assigned, therefore it is not overhauled.

### **Config code**

A two-digit code (00–99) used in ULLS–AE LCF. This code specifies parts with more than one cage code, model of aircraft and/or engine that part can be used on, parts that have a TBO and RC assigned, parts that have different MAOTs assigned, and so on. Important to select the correct configuration code for the component/part being installed to ensure that ULLS–AE tracks it properly.

### **Contractor and Government Entity Code**

CAGE code(s) are assigned to manufacturers/non-manufacturers organizational entities/contractors. The primary use of the CAGE code is in machine accounting operations related to support management programs, such as cataloging and standardization. The CAGE code is used in conjunction with the firm’s reference number relating the firm with the item of supply, production, or design in cataloging and other supply records, as well as on engineering documentation. These codes are essential to contract and/or purchase agreements and various activities and/or agencies automated data processing systems. The CAGE codes, reference number (NSN and PN), and serial numbers are used to screen item identifications against each other primarily to detect duplication.

### **Contract maintenance**

Any materiel maintenance operation performed under contract by commercial organizations (including the original manufacturers of the materiel) (see DOD 4151.16).

### **Controlled exchange**

Removal of serviceable parts, components and assemblies from unserviceable, but economically repairable aircraft or components and/or modules, and their immediate reuse in restoring a like item of equipment to a combat mission capable condition.

### **Critical characteristic**

Features (tolerance, finish, material composition, manufacturing, assembly, or inspection process) of a product, material, or process that if nonconforming, missing, or degraded could cause the failure or malfunction of the item.

### **Critical safety item**

Any part, assembly, subassembly, installation procedure, or production process that would have hazard probability level A, B, C, or D chance of resulting in an unsafe condition if not in accordance with design data or quality requirements.

### **Deferred maintenance**

Authorized delay of maintenance and/or repair of uncorrected faults by the commander or commander’s designated representative

### **Deficiency**

A fault, defect, or problem so severe that it causes an item, system, or subsystem to be inoperative or inaccurate.

### **Department of Defense Activity Address Code**

A six-digit code that gives a delivery address for supplies and equipment.

### **Depot Maintenance Work Requirements**

A maintenance serviceability standard for sustainment facility (depot) level repairables designated for repair and return to AWCF stock. It prescribes the scope of work to be performed on an item by sustainment facility (depot) maintenance facilities, organic or contract support, and/or qualified below-sustainment facility (depot) sources of repair; types and kinds of materiel to be used, and quality of workmanship. The DMWR also addresses repair methods, procedures, and techniques, modification requirements, fits and tolerances, equipment performance parameters to be achieved, quality assurance discipline, and other essential factors to ensure that an acceptable and cost-effective product is obtained.

### **Designated representative**

Someone authorized to sign for and/or represent the commander or the person in equal management positions in



contract support maintenance activities. This pamphlet sometimes asks for the signature of the commander or the commander's designated representative. The commander shall use a memorandum (letter), orders, or DA Form 1687 (Notice of Delegation of Authority-Receipt for Supplies) to appoint designated representatives. The commander holds full responsibility for the safety of personnel and the status of aircraft and equipment. Designated representatives should be knowledgeable, experienced, and readily available to the people needing their signatures and help; therefore, they must be picked carefully.

### **Electromagnetic environmental effect**

Any failure (or serious effect) apparently caused by, or related to, radio waves, electromagnetism, voltage or current pulses (static discharge, lightning, electromagnetic pulse, or transient electricity), from whatever source.

### **Fault**

A term used to indicate that a piece of equipment has a deficiency or shortcoming.

### **Field maintenance**

Field maintenance is the first operation of the Army maintenance system. Field maintenance is characterized by the performance of maintenance tasks "on system" in a tactical environment using trained personnel, tools, and TMDE.

### **Flight**

Flight starts when an airplane begins to move forward on the takeoff roll or when a helicopter lifts off the ground. The flight ends when the aircraft has landed and the engines are stopped or the flying crew changes.

### **Fully mission capable**

Aircraft is safe and has all mission-essential subsystems installed and operating as designated by applicable ARs. The aircraft is fully mission capable when it can perform all its units assigned combat missions. The terms ready/available and FMC refer to the same status: equipment is on hand and able to perform its combat missions.

### **General purpose test, measurement, diagnostics equipment**

TMDE that is used or has the potential of being used without significant modifications for test, measurement, and diagnosis of a range of parameters for two or more items of equipment or systems.

### **Ground support equipment**

Includes all AMCOM managed aircraft ground support equipment needed to maintain aircraft and aviation associated equipment. Aviation ground support equipment maintenance will be documented per DA Pam 750-8.

### **Initial failure**

Failure upon initial use or test caused by other than accident, misuse, improper installation, improper operation, unauthorized repair, or unauthorized alteration.

### **Installation critical characteristics**

Critical characteristics that are not introduced during the manufacture of a part but are critical for assembly/installation; for example, proper torque.

### **Logistic assistance representative**

An individual assigned by AMC and AMCOM to advise, train and provide logistic assistance on aircraft and other aviation equipment.

### **Maintenance**

The function of keeping aircraft, components and/or modules, assemblies, subassemblies, and repair parts and other aviation equipment in an operational status; restoring the material to a serviceable condition; or updating and upgrading its functional utility through modification and product improvement. Common maintenance functions are inspect, test, service, adjust, calibrate, install, remove, replace, repair, modernize, modify, overhaul and rebuild.

### **Major fault**

A major fault is any fault, deficiency, or condition that makes an aircraft unsafe to fly or requires additional related maintenance actions to clear the fault, deficiency, or condition.

### **Manufacturing critical characteristics**

Critical characteristics produced during the manufacturing process.

**Matériel condition**

The state that determines the ability of an item to accomplish its intended function.

**Mission day**

A mission day is defined as a 24-hour period starting at aircraft takeoff of the first flight of the mission and ending at engine shut down of the last flight of the mission. The 24-hour mission day may be extended if necessary to complete the mission, however, planned over-flights of the 24-hour mission day are not encouraged and should be minimized. Aircraft under the PMD inspection system shall comply with the following instructions: When aircraft flight operations (one or more) are performed, and a daily inspection (PMD) is completed, the term Mission Day is defined as any 24-hour period beginning at the time of aircraft takeoff of the first flight after completion of the last daily inspection.

*Note.* Should the aircraft be airborne at the end of the 24-hour period, at the next landing a daily inspection is due before the next flight. Example 1: The daily inspection is completed at 1900 hours, 12 Mar 2009, take off is 2100 hours for 6 hours of night flight training. The aircraft then lands at 2400 hours to refuel, takes off again at 0100 hours, and flies until 0400 hours and is not scheduled to fly until 2200 hours, 13 Mar 2009. The Mission Day ended at 0400 hours and a daily inspection is needed before the 2200 hour flight. Example 2: The daily inspection is completed at 1500 hours, 16 Mar 2009 takeoff is 1000 hours, 17 Mar 2009 for 8 hours of combat support. The aircraft lands every 2 hours to refuel, and so on, and is scheduled to fly until 0900 hours. The aircraft lands to refuel, and so on, at 0900 hours, 18 Mar 2009 and is scheduled to resume combat support flight. The Mission Day shall end at 0959 hours, 18 Mar 2009; therefore, a daily inspection is needed before the next flight on 18 Mar 2009.

**Mission-related equipment**

Equipment installed in or on an aircraft to accomplish one or more types of missions, for example, a 30mm cannon, the electronic TADS, and the PNVIS installed on a AH-64A helicopter to perform combat gunnery missions.

**National Maintenance Program repair standard**

A standard recognized as the single Army sustainment standard for a repairable NSN. It is defined as the highest published standard and as such may be a DMWR, a NMWR, an AMCOM engineering directive, a TM, a commercial manual, or a scope of work. It is the single standard recognized by the item manager as the sustainment repair standard.

**National maintenance work requirement**

A maintenance serviceability standard for field level repairables designated for repair and return to AWCF stock. It prescribes the scope of work to be performed on an item by organic sustainment facility (depot) maintenance facilities, certified nonsustainment facility (depot) National providers, or contractors; types and kinds of matériel to be used; and quality of workmanship. It also addresses repair method, procedures and techniques, modification requirements, fits and tolerances, equipment performance parameters to be achieved, quality assurance discipline, and other essential factors to ensure that an acceptable and cost effective product is obtained.

**Not mission capable**

A matériel condition indicating that Aircraft, UA, UAS, or aviation associated equipment cannot perform any one of its combat missions. NMC is divided into not mission capable maintenance (NMCM) or not mission capable supply (NMCS).

**Not-mission-capable maintenance**

Aircraft, UA, UAS, and aviation associated equipment having maintenance work underway or needed that may be due to scheduled or unscheduled maintenance, outstanding emergency MWO/TBs, emergency SOF messages, or one-time inspection SOU message

**Not-mission-capable supply**

Aircraft, UA, UAS, and aviation associated equipment that are not flyable or operable because of maintenance work stoppage due to lack of repair parts or supply backorders.

**Nonstandard aircraft**

Army aircraft not classified standard or aircraft obtained from other DOD activities or commercial sources.

**Personnel identifier**

A code used on aviation forms and records that identifies personnel that operate, maintain, and stores aircraft, UA, UAS, and aviation associated equipment (see chap 2). This code is auto generated in a LIS system. On paper forms and records it may be the AKO user name.

**Product quality deficiency report exhibit**

An item reported as being deficient, or a sample item that represents the reported deficient condition, that can be torn down and analyzed to determine the possible cause of the defect.

### **Product quality deficiency reports**

The prescribed means for users of Army aircraft, UA, UAS and associated equipment to record and report product quality deficiency data. Product quality deficiency is a nonconforming condition that limits or prevents the product from fulfilling its purpose. This includes defects in design, specification, material, manufacture, overhaul, recap, and workmanship.

### **Project manager and/or supervisor**

A person in charge of a civilian work force with vested authority to direct, coordinate, and control the work force of an aviation contract support maintenance unit/activity. The project manager and/or supervisor shall—

- a. Assure that quality maintenance is performed.
- b. Emphasize the importance of maintenance and ensure that subordinates are held accountable for the conduct of aviation equipment maintenance operations.
- c. Provide leadership, technical supervision, and management control of aviation equipment maintenance program.
- d. Emphasize the conduct and supervision of preventive maintenance checks and services performed at the unit level; preventive maintenance and repair at intermediate level; and repair, overhaul, or rebuild maintenance at depot level.
- e. Establish, maintain, and conduct training of leaders in the maintenance organization to properly supervise maintenance operations and to motivate subordinates to properly and safely use and maintain aviation equipment.
- f. Recommend improvements of the Army aviation maintenance system.
- g. Ensure that the submission of deficiency reports are prepared and submitted per chapter 3 of this pamphlet.

### **Related maintenance actions**

Additional related maintenance actions and/or work necessary and accomplished while clearing major faults and/or deficiencies, and conditions written up on DA Form 2408-13-1 or DA Form 2408-13-3.

### **Remark(s)**

To say or write briefly a comment, observation or expression of something noticed or worth mentioning.

### **Reportable component**

A component or repair part that is classified as a TC (TBO), RC (MAOT), or selected CC items that have been selected by AMCOM for accumulation and reporting of maintenance data on the DA Form 2410. Reportable components and/or modules are listed in TB 1-1500-341-01 or for ULLS-A units in the component LCF.

### **Retirement change item**

An item that has been assigned a safe maximum allowable operating time since new, that the item can safely be operated before it must be removed from service, mutilated, and lost to the Army inventory. This item can be repaired prior to reaching its MAOT, normally RC items will not be overhauled, and must be removed from service when it reaches its MAOT.

### **Stock-funded, sustainment facility (depot)-level reparable**

An item with a maintenance repair code of D or L or an automatic return item code of C, E, R, or S.

### **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 that apply to the equipment. Technical inspections shall also be done on aviation equipment forms, records (see chap 2-5), and files, maintenance operations and supply facilities, and general housekeeping at all flight line areas. The results of the technical inspections shall be used to—

- a. Assure that quality maintenance is performed.
- b. Determine serviceability.
- c. Determine the economical reparability of the equipment.
- d. Estimate cost of damage resulting from incidents and/or accidents.
- e. Determine how many manhours and repair parts are needed to restore equipment to a serviceable condition.
- f. Determine cause of the unserviceable condition of the equipment.

### **Time between overhaul**

The established maximum allowable operating time (MAOT) since new or overhaul, that an item can be operated before it must be removed from service and returned to a depot level facility for overhaul. Time since new will not be

changed, time since overhaul will be 'zeroed' and number of previous overhauls will be increased by one after an overhaul.

**Time change item**

An item that has a fixed operating time between overhauls based of safety or design limitations. The item must be replaced with a new or fully serviceable item after the specified time. The item will then be overhauled at a depot level facility.

**Total cumulative counts and hours**

The total cumulative LCF-1, LCF-2, T/TI, and operating hours that a T-700 series engine, module, component, or subcomponent has accumulated since new regardless of history recorder changes.

**Unmanned Aircraft System component**

Any component of an UAS listed in the appropriate figure in appendix D.

**Unmanned Aircraft System subsystem(s)**

Any subsystem of an UAS listed in the appropriate figure in appendix D.

**Unit identification code**

A six-character code assigned to a specific unit. When this pamphlet asks for a UIC, all units, organizations, and activities shall use their own UIC. Contractors, manufacturers, and commercial activities do not have UICs. They shall use the Contractor and Government Entity (CAGE) when a UIC is called for. Put the letter "K" in front of the CAGE. For example, Bell Helicopter, CAGE 97499, shall be turned into a contractor UIC, K97499.

**Weapons and/or equipment system designator code**

A two-character code that is given to equipment for supply use. The code is put on the DA Form 2407 and supply requests. You will find these codes in AR 725-50 and DA Pam 710-2-1.

**Workday**

The normal duty shift set by the local command. For the purposes of this pamphlet, a normal duty shift shall not exceed a 12-hour period.

**Work unit code**

A coding structure developed for Army aircraft components and/or modules to show the relationship of a single component to a major component and/or module. The WUCs are established to identify functional grouping, major sections, systems installations or major components/modules, specific major components and/or modules, and subcomponents of the aircraft. These codes are listed in TB 1-1500-341-01.

**Section III**

**Special Abbreviations and Terms**

**FCF**

function check flight

**UAS-I**

unmanned aircraft systems-initiative

**UNCLASSIFIED**

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