NOT MEASUREMENT SENSTIVE

MIL-STD-3008A (TM)
9 September 2002

SUPERSEDING
MIL-STD-3008(TM)
30 September 2000

DEPARTMENT OF DEFENSE
STANDARD PRACTICE

INTERACTIVE ELECTRONIC TECHNICAL MANUAL (IETM)
TECHNICAL DATA REQUIREMENTS
TO SUPPORT
THE
GLOBAL COMBAT SUPPORT SYSTEM - ARMY (GCSS-A)

AMSC A7481 AREA TMSS

FOREWORD

1. This standard is approved for use by the Department of the Army and is available for use by all Departments and Agencies of the Department of Defense (DoD).

2. This standard provides detailed requirements for collecting and reporting operations, historical, maintenance, and ammunition data for the management and support of aviation and non-aviation weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts. The data developed in accordance with this standard will be provided to the Global Combat Support System - Army (GCSS-A). The GCSS-A provides the Army a seamless, integrated, and interactive communications and automated information system (AIS) at all force levels of combat service support (CSS).

3. Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be used in improving this document should be addressed to: Executive Director, USAMC Logistics Support Activity, Engineering Logistics and Field Support Center, ATTN: AMXLS-AP, Redstone Arsenal, AL 35898-7466 by using the Standardization Document Improvement Proposal (DD Form 1426), appearing at the end of this document or by letter.

CONTENTS

LIST OF TABLES

1. SCOPE.

1.1 Purpose. This standard contains detailed requirements for collecting and reporting operations, historical, maintenance, and ammunition data for the management and support of aviation and non-aviation weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts.

2. APPLICABLE DOCUMENTS.

2.1 General. The documents listed in this section are specified in sections 4 and 5 of this standard. This section does not include documents cited in other sections of this standard or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 4 and 5 of this standard, whether or not they are listed.

2.2 Government documents.

2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this standard to the extent specified herein. The issue of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see para. 6.2).

STANDARDS

DEPARTMENT OF DEFENSE

MIL-PRF-28001	—	Markup Requirements and Generic Style Specification for Electronic Printed Output and Exchange of Text

(Unless otherwise indicated, copies of the above documents are available from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues are those cited in the solicitation.

DA PAM 738-750	—	Functional Users Manual for The Army Maintenance Management System (TAMMS)
DA PAM 738-751	—	Functional Users Manual for The Army Maintenance Management System – Aviation (TAMMS-A)

(Application for copies should be addressed to U.S. Army Publications Distribution Center, 1655 Woodson Road, St. Louis, MO 63114-6181.)

2.3 Order of precedence. In the event of a conflict between the text of this standard and the references cited herein, the text of this standard takes precedence. Nothing in this document, however, supersedes applicable law and regulations unless a specific exemption is obtained.

3. DEFINITIONS.

3.1 Definitions. The acronyms and glossary of terms below are applicable to this standard. Acronyms and definitions within the Tables contained in this standard are provided in the data dictionary for the Document Type Definition (DTD) developed for this standard (Refer to 4.3)

3.1.1 Acronyms.

AC	Action Code
ACR	Ammunition Condition Report
AIS	Automated Information System
ALSE	Aviation Life Support Equipment
AMN	APE Management Number
AMSS	Army Materiel Status System
AOAP	Army Oil Analysis Program
APC	Account Processing Code
APE	Ammunition Peculiar Equipment
APO	Army Post Office
APU	Auxiliary Power Unit
ASAM	Aviation Safety Action Message
ASRL	Army SGML Registry and Library
AVIM	Aviation Intermediate Maintenance
AVUM	Aviation Unit Maintenance
B POS	Blade Position
CAGE	Contractor and Government Entity Code
CC	Condition Change
CC	Condition Code
CMH	Crew Manhours
CRT	Combat Repair Teams
CSS	Combat Service Support
DA	Department of the Army
DD	Dry Docking
DIC	Document Identifier Code
DMH	Depot Manhours
DoD	Department of Defense
DODAAC	Department of Defense Activity Address Code
DODISS	Department of Defense Index of Specifications and Standards
DOI	Date of Issue
DOM	Date of Manufacture
DS	Direct Support
DTD	Document Type Definition
ECC	Equipment Category Code
ECOD	Estimated Cost of Damage
ECON	Economically Repairable
EFC	Equivalent Full Charge Computation
EIC	End Item Code
ELT	Emergency Locator Transmitter
EO	Engineering Orders
ERC	Equipment Readiness Code
ESRA	Enhanced Special Repair Activity
ETI	Elapsed Time Indicator
ETM	Electronic Technical Manual
ETM-I	Electronic Technical Manual-Interface
FAT	Free Air Temperature

FMH	AVIM Manhours
FSC	Federal Supply Classification
FSN	Federal Stock Number
GBL	Government Bill of Laden
GCSS-A	Global Combat Support System-Army
GS	General Support
HSF	Hot Section Factor
ID STD	Identification Standard (Mission Symbol)
IETM	Interactive Electronic Technical Manual
IPS	Inches per Second
LCF	Low Cycle Fatigue
LIN	Line Item Number
M&S	Media & Status Code
MAOT	Maximum Allowable Operating Time
MCSR	Materiel Condition Status Report
MDS	Mission, Design, Series
MMH	Maintenance Manhours
MOS	Military Occupational Specialty
MSC	Major Subordinate Command
MST	Mobile Support Teams
MWO	Modification Work Order
NAR	Not Available Reason
NHA	Next Higher Assembly
NICP	National Inventory Control Point
NIIN	National Item Identification Number
NMC	Non-mission Capable
NMCM	Non-mission Capable Maintenance
NMCS	Non-mission Capable Supply
NOMEN	Nomenclature
NRTS	Not Repairable This Station
NSN	National Stock Number
NVGs	Night Vision Goggles
O/H	On Hand
OAT	Outside Air Temperature
OMH	Organizational Manhours
ORF	Operational Readiness Float
PATS	Programmatic and Technical Support
PID	Personnel Identifier
PLB	Personnel Locator Beacon
PLL	Prescribed Load List
PMCS	Preventive Maintenance Checks and Services
PMD	Preventive Maintenance Daily
POS	Position
PSI	Pounds Per Square Inch
QDR	Quality Deficiency Report
RC	Replacement Component
RDD	Required Delivery Date
RIC	Routing Identifier Code
RPM	Revolutions per Minute
RR	Railroad
SAMS	Standard Army Maintenance System
SDU	Signal Detection Unit
SFX CD	Suffix Identification Code
SGML	Standard Generalized Markup Language
SMR	Source, Maintenance, Recoverability

SOF	Safety of Flight
SRA	Specialized Repair Activity
SSAN	Social Security Account Number
SSN	Starts Since New
SSO	Starts Since Overhaul
TAMMS	The Army Maintenance Management System
TAMMS-A	The Army Maintenance Management System-Aviation
TB	Technical Bulletin
TBO	Time Between Overhaul
TC	Time Change
TDA	Table of Distribution & Allowances
TEAC	Turbine Engine Analysis Check
TGT	Turbine Gas Temperature
TIPID	Technical Inspector Personnel Identifier
TM	Technical Manual
TSN	Time Since New
TSO	Time Since Overhaul
TTI	Time-Temperature Index
UI	Unit of Issue
UIC	Unit Identification Code
ULLS	Unit Level Logistics System
UMCP	Unit Maintenance Collection Point
USA	United States Army
USAPA	United States Army Publishing Agency
VIN	Vehicle Identification Number
W/T	Wheel Time
WON	Work Order Number
WOR	Work Order Request
WUC	Work Unit Code
XML	Extensible Markup Language

3.1.2 Combat Service Support (CSS). Combat Service Support includes the battlefield functional areas of manning, arming, fixing, fueling, moving, and sustaining soldiers and their systems. It is characterized by anticipation, integration of functions, continuity of support, responsiveness, and versatility to circumstances and improvisation.

3.1.3 Document Type Definition (DTD). The definition of the markup rules for a given type of document. Defines the structure of a document, similar to the schema of a database. DTDs are part of the SGML structure methodology, and within this standard, the DTD identifies element names for each of the tables and table entries; indicates whether an element is required or optional and repeatable; and groups elements as necessary to show data relationship.

3.1.4 Electronic Technical Manual (ETM). A general term that describes combinations of technical manual data in digital formats, stored in optical or magnetic media, and viewed through electronic display devices.

3.1.5 Electronic Technical Manual-Interface (ETM-I). ETM-I is a prototype software interface, through which the user can electronically transfer parts request information and work order data between the ETM platform and the Unit Level Logistics System (ULLS) and the Standard Army Maintenance System (SAMS). The interface will reduce extensive data entry and eliminate transposition errors that could lead to faulty requisitions and excess parts.

3.1.6 Extensible Markup Language (XML) Schema. For purposes of transmitting data to a database, XML Schema provides the same functionality as a DTD: naming of elements; indicating required/optional/repeatable requirements; and indicating data relationship. In addition, XML Schemas can identify and enforce data types for any element. Therefore, if it is determined that a "PID" element must consist of 2 Letters followed by 4 digits (MM0022), an XML schema can indicate this requirement. DTDs can not indicate or enforce data typing.

3.1.7 Global Combat Support System-Army (GCSS-A). The Global Combat Support System-Army is designed to provide the Army a seamless, integrated and interactive communications and automated information system at all force levels of combat service support (CSS). The system will streamline CSS information management by eliminating duplicative systems, consolidating logistics automated information system functionality, sharing data and computing applications among components of the system, and inserting advances in emerging information technology.

3.1.8 Interactive Electronic Technical Manual (IETM). An IETM is a technical manual, prepared (authored) by a contractor and delivered to the Government or prepared by a Government activity, in digital form on a suitable medium, by means of an automated authoring system; designed for electronic screen display to an end user; and possessing the following three characteristics: (1) The format and style of the presented information are optimized for screen presentation to assure maximum comprehension; that is, the information presented is frame-oriented, not page-oriented; (2) The elements of technical information constituting the IETM are so interrelated that a user's access to the information he/she requires is facilitated to the greatest extent possible, and is achievable by a variety of paths; (3) The computer-controlled IETM electronic display system (EDS) can function interactively (as a result of user request and information input) in providing procedural guidance, navigational directions, and supplemental information; and also in providing assistance in carrying out logistic support functions supplemental to maintenance.

3.1.9 Standard Army Maintenance System (SAMS). The SAMS for the direct support (DS) and general support (GS) levels of maintenance provides maintenance and management information to each level of command from the user to the division or corps, wholesale, and DA levels. SAMS is divided into two levels: SAMS-1 which operates at the DS/GS maintenance company; and SAMS-2 which operates at command levels above the maintenance company. SAMS functionality will be absorbed into GCSS-A Management Module.

3.1.10 Standard Generalized Markup Language (SGML). SGML is a standard for describing the structure, as opposed to the format, of a document. The structure of a book can be separated into a title page, a table of contents, chapters, appendices, a glossary and an index. In SGML, these parts of a book are called elements. These elements are combined to create a complete book. Elements are the structural building blocks of a document. In SGML, the elements are identified by markings (markup) at the beginning and ending of each element. These markings appear as a start and end tag (sometimes referred to as tagging) for most SGML elements.

3.1.11 The Army Maintenance Management System (TAMMS). TAMMS oversees the control, operations and maintenance support of Army equipment. It administers a series of forms and records to manage maintenance, control the use, and report warranty actions and deficiencies on each piece of reportable equipment. In addition to formally documenting equipment deficiencies and maintenance actions, this data is used to track parts consumption, grades and quantities of consumables, failure trends, etc.

3.1.12 Unit Level Logistics System (ULLS). ULLS is an automated Army system that collects maintenance and supply data and provides management information at the unit level. It automates and/or replaces portions of TAMMS. ULLS functionality will be absorbed into GCSS-A Maintenance Module.

4. GENERAL REQUIREMENTS.

4.1 General. Detailed requirements for collecting and reporting operations, maintenance, historical, ammunition, and parts requisition data for efficient management and support of aviation and non-aviation weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, are provided in this section. The data described in this section will be provided to the Global Combat Support System - Army (GCSS-A). The GCSS-A provides the Army a seamless, integrated, and interactive communications and automated information system (AIS) at all force levels of combat service support (CSS). It provides users a responsive and efficient means to rapidly anticipate, allocate, and synchronize the flow of available CSS resources to equip, deploy, project, sustain, reconstitute, and re-deploy tactical forces in support of the national military strategy. Providing these operations, maintenance, historical, ammunition and parts requisition data to the GCSS-A will provide for the following major capabilities:

a. Provide the capability to request all classes of supplies, manage prescribed load lists, bench stock, shop stock, combat spares, and reparable items.

b. Provide the capability to manage maintenance workloads and coordinate repair activities, establish maintenance priorities, and control subordinate elements such as combat repair teams (CRT) and mobile support teams (MST) and contact teams operating from the unit maintenance collection point (UMCP).

c. Provide the functionality needed to report supply and maintenance financial information at all levels.

d. Provide the functionality to report maintenance status and Army Materiel Status System (AMSS) data from organizational maintenance at the unit level, shop operations of Direct Support (DS) and General Support (GS) maintenance units, installation level maintenance support at TDA activities, and Aviation Unit Maintenance (AVUM) and Aviation Intermediate Maintenance (AVIM).

e. Provide the functionality for the equipment dispatch procedures, maintenance and inspection worksheet procedures, recording and disposition of maintenance faults, repair parts removal and installation, equipment services performed, and all TAMMS and TAMMS-Aviation (TAMMS-A) record management.

f. Downloading of existing weapon system historical and maintenance records and data from GCSS-A to an external device for deployment with the unit.

g. Transfer of equipment, maintenance, historical, supply requests, and other information back to the parent unit and the task force command while operating in a deployed status.

h. Upload records, information, and data for system updates upon return of units.

i. Provide MST, CRT, maintenance contact team, maintainers, and technical repair personnel for all weapon systems with maintenance information at the point of repair or on site wherever maintenance is performed.

j. Provide users with an embedded capability that allows access to the ETM, ETM-I, or IETM.

k. Provide total asset visibility and readiness of sub-weapon systems and sub-components by weapons system or end item tail number, bumper number, or serial number.

l. Provide the functionality needed to dynamically query unit readiness status and trends on any weapon system, end item, subsystem or serial numbered component for any preceding period of time.

m. Provide the capability to manage phased maintenance requirements for weapon systems and end items by model and mission design series.

n. Provide the functionality and capabilities needed to monitor, control and track commercial vendor provided maintenance support.

4.2 Sources for data collection and reporting. Electronic Technical Manuals (ETMs)/Interactive Electronic Technical Manuals (IETMs) shall be used as the primary source for collecting and reporting the operations, maintenance, historical, ammunition and parts requisition data. For those systems and equipment that are not supported by ETMs/IETMs, other automated or manual methods should be used to collect and report the data described in this section to the GCSS-A.

4.3 Preparation of data. Operations, maintenance, historical, ammunition and parts requisition data developed and delivered digitally in accordance with this standard shall be Standard Generalized Markup Language (SGML) tagged using the Document Type Definition (DTD) of this standard. The Document Type Definition can be obtained from the United States Army Publishing Agency (USAPA). SGML tags used in the DTD are noted throughout the text of this standard in bracketed, bold characters (i.e., <**gendata**>) as a convenience for the developer and to ensure that the tags are used correctly when developing the data.

4.3.1 Use of the DTD. The DTD referenced in this standard interprets the technical content and structure for the data requirements contained in the standard and are mandatory for use. Appendix A provides information concerning where the DTD may be obtained.

4.4 Sources for providing data. The ETM/IETM shall be the primary source for obtaining the data described herein. If the data is not provided by the existing ETM/IETM or an ETM/IETM is not available, other automated or manual sources should be used to obtain this data. Existing systems such as the Army Maintenance Management System-Aviation (TAMMS-A), Unit Level Logistics System (ULLS), or Standard Army Maintenance System (SAMS) may be used or the data can be manually provided in the interim using form templates.

5. DETAILED REQUIREMENTS.

5.1 Data requirements. Data needed to effectively and efficiently manage and support aviation and non-aviation weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be developed. The data, used in conjunction with the GCSS-A will provide the capability to support worldwide deployment, employment, and sustainment of combat forces in various scenarios and areas of operations.

5.1.1 Types of data required. Specific functional data needed for aviation and non-aviation weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, are listed as follows:

a. Operational data

b. Maintenance data

c. Historical data

d. Ammunition data

e. Parts requisitioning data.

In addition to the data required for the five major functional areas, cross-functional data shall be developed. This cross-functional data spans multiple functional areas and are used to link with other specific functional data required by this standard. Cross-functional data requirements are applicable to both aviation and non-aviation areas and are provided in 5.2. Data requirements for aviation weapons systems and related equipment are provided in 5.3. Data requirements for non-aviation weapons systems and related equipment are provided in 5.4.

5.1.2 Data tables. Specific data shall be developed and organized in the form of functional data tables. These tables are structured according to the data associations which dictate the table configuration. The interrelationships and data hierarchy between tables are only established through the use of the applicable Document Type Definition. With the exception of Table 4, the tables are structured into one column. The "Data Element Title" column provides the noun phrase to identify the data element with sufficient modifiers to ensure title uniqueness for a specific data element definition. The "Data Name" is defined in the DTD.

5.2 Cross-functional data requirements. Cross-functional data tables have attributes that can span multiple functional areas and are used to link with other functional tables throughout this standard. The cross-functional data contained herein are inherent to the identification, description, origin, custody, operation, support and location of a specified weapon system or piece of equipment.

5.2.1 Equipment and personnel identification data. Equipment identification information is compiled and collated in such a manner as to accurately identify and describe any piece of equipment. Similarly, personnel information is provided to accurately identify personnel involved in operations and maintenance support. The objective of this methodology is to minimize redundancy of information without creating voids in the assimilated data. In Tables 1 through 3, the elements followed by an asterisk (*) are considered required elements for identification; all other elements are considered optional.

5.2.1.1 Equipment type. Table 1 provides standardized information for identifying aviation and non-aviation equipment, the latter including watercraft and rail equipment. This table also provides specific information on a piece of equipment, both by alpha and/or numerical designation and origin. It encompasses an equipment grouping that includes: assembly, sub-assembly, component, sub-component, end item, part, module, piece, and accessory.

TABLE 1. Equipment type data

Data Element Title	Data Element Name/Attributes
1. Administration Number*	1. <admin-no>
2. Bumper Number*	2. <bump-no>
3. Car Number*	3. <car-no>
4. Commodity	4. <commodity>
5. Contract Number	5. <contract-no>
6. Contractor and Government Entity (CAGE) Code**	6. <cageno>
7. Control Number	7. <cntrlno>
8. Date Item Entered Into Army Inventory	8. <date>
9. End Item Code (EIC)	9. <eic>
10. Equipment Category Code (ECC)	10. <ecc>
11. Government Bill of Laden (GBL) Number	11. <gblno>
12. Identification Code	12. <identno>
13. Line Item Number (LIN)	13. <lin>
14. Local Identification Number	14. <local-identno>
15. Locomotive Number*	15. <locomotive-no>
16. Lot Number	16. <lotno>
17. Make/Model/Type	17. <make-model-type>
18. Manufacturer's Address	18. <manuf-address>
19. Manufacturer's Name	19. <manuf-name>
20. Manufacturer's Part Number	20. <manuf-partno>
21. Mission, Design, Series (MDS)	21. <mds>
22. National Stock Number (NSN)*	22. <nsn>
23. Nomenclature	23. <nomen>
24. Part Number**	24. <partno>
25. Purchase Order Number	25. <pono>
26. Requisition Number	26. <reqno>
27. Serial Number*	27. <serialno>
28. Vehicle Identification Number (VIN)	28. <vin>

*Required Identifier (All that apply to end item)
**Part Number followed by CAGE Code may be used in lieu of NSN.

5.2.1.2 Equipment assignment. Table 2 provides necessary information to identify the organization that has ownership, custody and/or control of the specified aviation or non-aviation equipment.

TABLE 2. Equipment assignment data

Data Element Title	Data Element Name/Attributes
1. DOD Activity Address Code (DODAAC)*	1. <dodaac>
2. Unit Identification Code (UIC)*	2. <uic>
3. Unit/Activity: * a. Name* b. Address* c. Home Station* d. APO** e. ZIP Code*	3. <unit-activity> a. <name> b. <address> c. <home-station> d. <apo> e. <zip>

*Required Identifier
**May be used in lieu of zip code

5.2.1.3 Personnel data. Table 3 provides identification and operational information on personnel who are involved in the daily operations of aviation and non-aviation equipment. The information includes both the operating crew and the maintenance personnel who provide daily support services and perform daily inspections.

TABLE 3. Personnel data

Data Element Title	Data Element Name/Attributes
1. Name	1. <name>
2. Rank	2. <rank>
3. Grade	3. <grade>
4. Job Title	4. <job-title>
5. Social Security Account Number (SSAN)	5. <ssan>
6. Personnel Identifier (PID)*	6. <pid>
7. Employee Number*	7. <empno>
8. Military Occupational Specialty (MOS)	8. <mos>
9. Unit/Activity Assigned To	9. <unit-activity>
10. National Guard: a. Full Time b. Part Time	10. <natl-guard> a. <natl-guard status="fulltime"> b. <natl-guard status="parttime">
11. Duty Symbol	11. <dutysymbol>
12. Flight Symbol	12. <flightsymbol>
13. Flight Hours	13. <flight-hours>
14. Seat	14. <seat>
15. Equipment Operator Qualification/Permit Data: a. Date of Birth b. Sex c. Weight d. Height e. Hair (Color) f. Eyes (Color) g. Miles/Kilometers Since Last Action h. Days Since Last Action i. License Expiration Date j. License Number k. Hours Since Last Action l. Total Miles Driven m. Commander's PID n. Equipment Qualifications: 1) Equipment Class Code 2) Code Description 3) Date Qualified o. Restrictions/Transactions: 1) Code 2) Date 3) Description	15. <op-permit-data> a. <dob> b. <sex> c. <weight> d. <height> e. <hair> f. <eyes> g. <miles-kilometers> h. <days> i. <date-lic-exp> j. <licno> k. <hours> l. <totalmiles> m. <commander-pid> n. <eqp-qual> 1) <code> 2) <desc> 3) <date> o. <restrictions> 1) <code> 2) <date> 3) <desc>

*Required Identifier (Need at least one)

5.2.1.4 Equipment and personnel identification matrix. Table 4 identifies the tables in this standard that are linked to required identifiers contained in Tables 1 through 3. A table that has no assignment is a standalone table containing relevant identifying information.

TABLE 4. Equipment/personnel matrix

		Equipment/Personnel Tables		
Table No.	**Table Title**	**Table 1**	**Table 2**	**Table 3**
5	Servicing Data	X	X	X
6	Preventive Maintenance Scheduled Data	X	X	X
7	Equipment Inspection and Maintenance Data	X	X	X
8	Equipment Inspection/Modification Data	X	X	
9	Maintenance Request Register Data	X	X	
10	Maintenance Required Data	X		
11	Parts Data	X	X	
12	PLL Inventory Data		X	
13	Cost Data	X	X	X
14	Environmental Conditions Data	X	X	X
15	Operations/Maintenance Fault Data	X	X	X
16	Fault Correcting Data	X	X	
17	Related Maintenance Actions Data	X	X	X
18	Uncorrected Fault Data	X	X	
19	Not Mission Capable Data	X	X	
20	IETM Fault Result Data	X	X	
21	IETM Maintenance Reporting Data	X	X	
22	Oil Analysis Request Data			
23	Oil Analysis And Recommendation Feedback Data			
24	Product Quality Deficiency Data			
25	Ammunition Accounting Data	X	X	X
26	Ammunition Condition Data	X		X
27	Ammunition Peculiar Equipment Utilization Data			
28	General Requisition Data			
29	Technical Manual Deficiency Data			
30	IETM Deficiency Data			
31	Flight Data	X	X	X
32	Flight Manual Exceedance Data	X	X	X
33	System Status Data	X	X	
34	Armament System Data	X	X	X
35	Armament System Sighting Data	X	X	X
36	Component Data	X	X	
37	Removal Data	X	X	X
38	Repair/Overhaul/Gain Data	X	X	X
39	Installation/Loss Data	X	X	
40	Life Raft Data			
41	Helmet And Oxygen Mask/Connector Data			
42	Survival Radio/Emergency Locator Transmitter Data			
43	Survival Kit Inspection And Maintenance Data			
44	Mesh Net Survival Vest Data			
45	Life Preserver Data			
46	Oxygen Console Service Data			
47	Anti-Exposure Coveralls Data			
48	NVG Inspection And Maintenance Data			
49	Vibration Data	X	X	
50	Component Data	X	X	

		Equipment/Personnel Tables		
Table No.	**Table Title**	**Table 1**	**Table 2**	**Table 3**
51	Component/Module Recorder Data	X	X	
52	Aircraft Inventory Data	X	X	
53	Engine Turbine Wheel Data	X	X	X
54	Turbine Analysis Check Data	X	X	X
55	Engine History Recorder Operating Hours Data			
56	Meter Tracked Component Data			
57	Equipment Utilization Data	X	X	
58	Equipment Deadlined Data	X	X	
59	Armament System Data			
60	Equipment Control Data	X	X	X
61	Equipment Maintenance And Calibration Data	X	X	
62	Dry-Docking, Painting And Condition Of Vessel Bottom Data	X	X	X
63	Daily Inspection Data	X	X	X
64	Field Inspection Data	X	X	X
65	Locomotive Inspection And Repair Data	X	X	X

5.2.2 Servicing data. Servicing data records the history of service performed on a piece of equipment and advises when the next services are due. Servicing data are recorded at the start of the mission day and are a part of the daily servicing inspection performed by the crew chief or mechanic. The data in Table 5 include the results of the inspection and the grades and quantities of consumables added.

TABLE 5. Servicing data

Data Element Title	Data Element Name/Attributes
1. Aircraft Pre-Mission Day Check: a. Date/Time Performed b. Fuel Grade c. Fuel in Tanks d. Oil: 1) Engine Number 2) Oil Quantity 3) Oil Grade e. APU Oil Quantity f. APU Oil Grade g. Oxygen PSI h. Anti-Icing Fluid i. Service-by PID j. Location	1. <pre-mission-day-check> a. <date-time> b. <fuel-grade> c. <fuel-in-tank> d. <oil-data> 1) <eng-no> 2) <qty-oil> 3) <oil-grade> e. <qty-apu-oil> f. <apu-oil-grade> g. <o2psi> h. <anti-ice-fluid> i. <service-by-pid> j. <location>
2. Aircraft Mission Day Servicing: a. Date/Time Performed b. Fuel Grade c. Fuel In Tanks d. Oil: 1) Engine Number 2) Oil Quantity 3) Oil Grade e. APU Oil Quantity f. APU Oil Grade g. Oxygen PSI h. Anti-Icing Fluid i. Service-by PID j. Location	2. <mission-day-service> a. <date-time> b. <fuel-grade> c. <fuel-in-tank> d. <oil-data> 1) <eng-no> 2) <qty-oil> 3) <oil-grade> e. <qty-apu-oil> f. <apu-oil-grade> g. <o2psi> h. <anti-ice-fluid> i. <service-by-pid> j. <location>
3. Equipment Servicing Data:	3. <eqp-service-data>

Data Element Title	Data Element Name/Attributes
a. Army Oil Analysis (AOAP) Sample: 1) Date/Time Performed 2) Hours b. Next Service: 1) Date/Time Performed 2) Miles/Kilometers 3) Hours c. Next Lube: 1) Date/Time Performed 2) Miles/Kilometers 3) Hours	a. <AOAP-sample-data> 1) <date-time> 2) <hours> b. <next-service-data> 1) <date-time> 2) <miles-kilometers> 3) <hours> c. <next-lube-data> 1) <date-time> 2) <miles-kilometers> 3) <hours>

5.2.3 Inspection and maintenance data. Inspection and maintenance data address both scheduled and unscheduled maintenance inspections of aircraft and equipment and their results. These inspections are performed in accordance with the standards established in the technical manuals that apply to the equipment. The data include the results of inspections, tests, diagnostic actions and any associated maintenance performed. Fault information noted during inspections and maintenance operations are addressed in 5.2.4.

5.2.3.1 Preventive maintenance scheduled data. Table 6 provides scheduled maintenance inspection data. Such information is typically predicated on operating hours, phased inspections, calendar intervals and daily inspections. It covers data of scheduled and performed unit maintenance, including lubrication services. This data also provides tracking information on non-mission capable (NMCM/NMCS) time.

TABLE 6. Preventive maintenance scheduled data

Data Element Title	Data Element Name/Attributes
1. Aircraft Data: a. Hours of Operation Since Last Generation b. Next Phase/Scheduled Inspection Number c. Next Phase/Scheduled Inspection Due At d. Hours of Operation to Next Phase/Scheduled Inspection e. Preventive Maintenance Daily (PMD) 1) Due f. Date Completed	1. <air-maint-sched-data> a. <op-hours measured="since-last-report"> b. <insp-no> c. <next-phase-insp-due> d. <hours-to-next-insp> e. <pmd-data> 1) <pmd-due> f. <date-time>
2. Non-Aviation Equipment Data: a. Date Received b. Received From c. Disposition d. Maintenance Information: 1) Inspection Type: a) Daily b) Weekly c) Monthly d) Other 2) NMC Data 3) Remarks	2. <non-air-maint-sched-data> a. <date-received> b. <received-from> c. <disposition> d. <eqp-data-maint-info> 1) <insp-type> a) <insp-type type="daily"> b) <insp-type type="weekly"> c) <insp-type type="monthly"> d) <insp-type type="other" othertype="xx"> 2) <nmc-data> 3) <remarks>

5.2.3.2 Equipment inspection and maintenance data. Table 7 provides data on managing and controlling maintenance. It covers data on all inspections, services, checks and replacements listed in the Special Inspections section of the aircraft maintenance manual that are not performed during regularly scheduled maintenance inspections. It includes information on faults and damage discovered during aviation and non-aviation equipment inspections, spot checks and diagnostic checks, and includes repair and replacement part information.

TABLE 7. Equipment inspection and maintenance data

Data Element Title	Data Element Name/Attributes
1. Aviation and Non-Aviation Equipment Data for ECOD: a. Date performed b. Technical Inspection: 1) TM Fault Number 2) Status 3) Deficiencies and Shortcomings 4) Corrective Action 5) Corrective Action Manhours c. Date of Manufacture d. Miles/Kilometers Since New e. Time Since New (Hours) f. Outstanding Modification Data: 1) Modification Number 2) Hours Required g. Total Manhours to Repair h. Total Manhours Cost i. Maintenance Expenditure Limits – Technical Bulletin j. Repair Cost Factor: 1) Percentage 2) Dollar Factor k. Required Replacement Parts: 1) Fault Number 2) Document Number 3) Priority 4) Deadline Code 5) NSN/NIIN 6) Nomenclature 7) Quantity 8) Cost l. Total Cost of Replacement Parts m. Total Cost of Repairs	1. <air-nonair-eqp-data-ecod> a. <datetime> b. <technical-insp-data> 1) <faultcode> 2) <status-symbol> 3) <deficiency> 4) <action> 5) <manhours-expend> c. <date-of-manuf> d. <miles-kilometers-since-new> e. <hours-since-new> f. <outstanding-mod-data> 1) <reference> 2) <manhours-proj> f. <manhours-expend> g. <manhours-cost> h. <reference> i. <repair-cost-data> 1) <repair-cost-data percentage> 2) <repair-cost-data dollar-factor> j. <ecod-part-req-data> 1) <faultcode> 2) <docno> 3) <priority> 4) <deadline> 5) <niin | nsn> 6) <nomen> 7) <qty> 8) <part-cost> k. <total-parts-cost> l. <total-cost>
2. Aviation Equipment Data: a. Date performed b. Inspection Number c. Item to be Inspected d. Reference: 1) Publication Number 2) Date e. Frequency: 1) Special Inspection 2) Test 3) Calibration 4) Replacement	2. <air-eqp-insp-maint-data> a. <datetime> b. <insp-no> c. <insp-item> d. <reference> 1) <tmno> 2) <date> e. <frequency-data> 1) <frequency-data type="special-inspection"> 2) <frequency-data type="test"> 3) <frequency-data type="calibration"> 4) <frequency-data type="replacement">

Data Element Title	Data Element Name/Attributes
f. Next Due Operating Hours g. Next Due Rounds Fired h. Next Due Date	f. <hours-to-next-insp> g. <rounds-to-next-insp> h. <date-inspection-due>
3. Non-Aviation Equipment Data: a. Date performed b. Miles/Kilometers c. Hours d. Rounds Fired e. Hot Starts f. Type Inspection g. References: 1) Publication Number 2) Date 3) Work Package 4) Figure 5) Item h. Time i. Manhours Required j. PMCS Item Number k. Status: l. Deficiencies and Shortcomings m. Corrective Action	4. <non-air-eqp-insp-maint-data> a. <datetime> b. <miles-kilometers> c. <hours> d. <rounds-fired> e. <hot-starts> f. <insp-type> g. <reference> 1) <tmno> 2) <date> 3) <wpno> <figref> 4) <itemref> g. <time> h. <manhours-proj> i. <pmcs-item-no> j. <status-symbol> k. <deficiency> l. <action>

5.2.3.3 Equipment/component modification data. Equipment/component modification data provide information on all authorized DA modifications to equipment, aircraft and aircraft training devices and simulators. This information includes data from Safety of Flight Messages, Aviation Safety Action Messages, Technical Bulletins, Maintenance Information Messages, Safety-of-Use Messages, and Urgent MWOs.

5.2.3.3.1 Equipment inspection/modification data. Table 8 provides information on all authorized DA modifications to equipment, aircraft and aircraft training devices and simulators.

TABLE 8. Equipment Inspection/modification data

Data Element Title	Data Element Name/Attributes
1. Nomenclature	1. <nomen>
2. Equipment/Component Serial Number	2. <comp-serialno>
3. Modification Title	3. <title>
4. Date	4. <date-time>
5. Priority	5. <priority>
6. Maintenance Level	6. <maintlvl>
7. Modification Data: a. Modification Number b. Safety of Flight (SOF) Number c. Aviation Safety Action Message (ASAM) d. Technical Bulletin (TB) Number	7. <reference> a. <modno> b. <sofno> c. <asam> d. <tbno>
8. Modification Kit Number	8. <kit-no>
9. Date Modification Must Be Applied	9. <date-completed>
10. Organization Applying Modification: a. Name b. UIC c. Location d. PID	10. <org-applying-mod> a. <name> b. <uic> c. <location> d. <pid>

Data Element Title	Data Element Name/Attributes
e. Manhours	e. <manhours-expend>
11. Remarks	11. <remarks>

5.2.3.4 Maintenance information. Maintenance information is data pertinent to maintenance support for a unit and can be relevant to intermediate maintenance support, depot support or contractor support.

5.2.3.4.1 Maintenance request register data. Table 9 provides data on job and work orders started at the unit maintenance level, and processed to the intermediate maintenance unit or depot where the work will be performed. It includes data on all open work orders, manhours and work order status.

TABLE 9. Maintenance request register data

Data Element Title	Data Element Name/Attributes
1. Job/Work Order Number	1. <jobno>
2. Priority Number	2. <priority>
3. Quantity	3. <qty>
4. Work Requested by	4. <work-requested-by-data>
5. Brief Description of Work or Remarks: a. Modification	5. <desc> a. <modno>
6. Date Job Order Was Received	6. <date-received>
7. Date Repair Started	7. <date-started>
8. Date Repair Finished	8. <date-end>
9. Manhours: a. Direct b. Indirect	9. <manhours-proj> <manhours-proj type="direct"> <manhours-proj type="indirect">
10. Labor Cost	10. <manhours-cost>
11. Parts Cost	11. <total-parts-cost>
12. Total Cost of Job	12. <total-cost>
13. NMCS	13. <nmcs>
14. NMCM	14. <nmcm>
15. Work Request Status Code	15. <work-request-status-code>

5.2.3.4.2 Maintenance required data. Table 10 provides data applicable to requests for maintenance support and the support that is provided at all levels of maintenance, including the tracking of data. It also includes information for filing Warranty Claim Actions and on action taken in response to Modification Work Orders, Aviation Safety Action/Safety of Flight messages, and Technical Bulletins.

TABLE 10. Maintenance required data

Data Element Title	Data Element Name/Attributes
1. Customer Data: a. UIC Customer b. Customer Unit Name c. Utilization Code d. MCSR	1. <cust-data> a. <uic> b. <unit-name> c. <utiliz-code> d. <mcsr>
2. Maintenance Activity Data: a. Work Order Number (WON) b. Shop Section Code c. UIC Support Unit d. Support Unit Name	2. <maint-acty-data> a. <won> b. <shop-section-code> c. <support-unit-uic> d. <unit-name>
3. Additional Data on Equipment: a. Date/Time	3. <add-eqp-data> a. <date-time>

Data Element Title	Data Element Name/Attributes
b. Type Maintenance Request Code c. Identification Code d. Organization Work Order Request (WOR) e. Document Number f. Quantity g. Priority Designator h. Malfunction Description i. Failure Code j. Failure Detected/When Discovered Code k. First Indication of Trouble Code l. How Recognized Code m. Miles/Kilo meters n. Hours o. Rounds p. Project Code q. Account Processing Code (APC) r. Operational Readiness Float (ORF) Authorized s. ORF Transfer t. In Warranty u. Administration Number v. Reimbursable Customer w. Level of Work x. Description of Fault or Failure y. Additional Maintenance Action z. Technical References aa. Remarks bb. Accepted by cc. Work Request Status Code	b. <type-maint-req-code> c. <identno> d. <orig-won> e. <docno> f. <qty> g. <priority> h. <malfunc> i. <fail-code> j. <fail-when-discov-code> k. <first-trouble-code> l. <how-recognized-code> m. <miles-kilometers> n. <hours> o. <rounds> p. <project-code> q. <apc> r. <orf-authority> s. <orf-transfer> t. <in-warranty> u. <admin-no> v. <reimburs-cust> w. <maintlvl> x. <failure> y. <maint-action> z. <reference> aa. <remarks> bb. <accepted-by> cc. <work-request-status-code>
4. Task Requirements: a. File Input Action Code (AC) b. Task Number c. Task Description: 1) Brief Description 2) Identification 3) NSN 4) Modification d. Quantity to Be Repaired e. Work Center Code f. Failure Code g. Manhours Projected: 1) Direct 2) Indirect h. Manhours Expended: 1) Direct 2) Indirect	4. <task-req-data> a. <file-input-ac> b. <taskno> c. <task-desc-data> 1) <desc> 2) <identno> 3) <nsn> 4) <modno> d. <qty-to-be-repaired> e. <work-ctr-code> f. <fail-code> g. <manhours-proj> <manhours-proj type="direct"> <manhours-proj type="indirect"> h. <manhours-expend> <manhours-expend type="direct"> <manhours-expend type="indirect">
5. Completion Data: a. Quantity Repaired b. Quantity Condemned c. Quantity Not Repairable This Station (NRTS) d. Evacuation Work Order Number (WON) e. Evacuation Unit Name	5. <completion-data> a. <qty-repaired> b. <qty-condemned> c. <qty-nrts> d. <won> e. <unit-name>
6. Part Data-Document Number	6. <docno>
7. Action Data: a. Accepted by 1) PID	7. <action-data> a. <accepted-by-data> 1) <pid>

Data Element Title	Data Element Name/Attributes
2) Status	2) <status-symbol>
3) Date	3) <date-time>
b. Started by	b. <work-started-by-data>
1) PID	1) <pid>
2) Status	2) <status-symbol>
3) Date	3) <date-time>
c. Inspected by	c. <inspected-by-data>
1) PID	1) <pid>
2) Status	2) <status-symbol>
3) Date	3) <date-time>
d. Picked Up by	d. <picked-up-by-data>
1) PID	1) <pid>
2) Status	2) <status-symbol>
3) Date	3) <date-time>
e. Work Request Status Code	e. <work-request-status-code>
f. Date-Time	f. <date-time>

5.2.3.4.3 Parts information. Table 11 provides data on replacement parts needed to complete maintenance actions, their costs, and the maintenance manhours cost. Parts tracking and cancellation data are included.

TABLE 11. Parts data

Data Element Title	Data Element Name/Attributes
1. Part Requirements:	1. <part-reqmnts>
a. File Input Action Code (AC)	a. <file-input-ac>
b. Task Number	b. <taskno>
c. Identification Number	c. <identno>
d. NSN	d. <nsn>
e. Part Number	e. <partno>
f. CAGE	f. <cageno>
g. Suffix Identification Code (SFX CD)	g. <sfxcd>
h. Quantity Requirement	h. <qty-required>
i. Quantity Issued	i. <qty-issued>
j. NMCS Code	j. <nmcs>
k. Failure Code	k. <fail-code>
l. Storage Location Code	l. <location>
m. Released by:	m. <released-by-data>
1) PID	1) <pid>
2) Date/Time	2) <date-time>
n. Cost	n. <part-cost>
o. Total Manhours Expended:	o. <manhours-expend>
1) Direct	<manhours-expend type="direct">
2) Indirect	<manhours-expend type="indirect">
p. Total Manhours Cost:	p. <manhours-cost>
1) Direct	<manhours-cost type="direct">
2) Indirect	<manhours-cost type="indirect">
q. Total Parts Cost	q. <total-parts-cost>
2. Part Order Status:	2. <part-order-status>
a. Order Date	a. <date-order>
b. Order Received Date	b. <date-order-received>
c. Approved Date	c. <date-approved>
d. Shipped Date	d. <date-shipped>
e. Delivered Date	e. <date-delivered>

Data Element Title	Data Element Name/Attributes
f. Installed Date	f. <date-installed>
3. Part Order Cancellation: a. Date b. Document Number c. NSN d. Part Number e. CAGE f. Reason for Cancellation	3. <part-order-cancel> a. <date-time> b. <docno> c. <nsn> d. <partno> e. <cageno> f. <reason>

5.2.3.4.4 Prescribed load list (PLL) inventory data. Table 12 provides information on unit maintenance repair parts that are demand supported, non-demand supported and specified initial stockage repair parts for newly introduced end items.

TABLE 12. PLL inventory data

Data Element Title	Data Element Name/Attributes
1. Date performed	1. <datetime>
2. NSN	2. <nsn>
3. Stock Code Data: a. Non-Stock (NS) b. Combat Stock (CS) c. Direct Support (DS)	3. <stockcode> a. <stockcode code="non-stock"> b. <stockcode code="combat-stock"> c. <stockcode code="direct-support">
4. Unit of Issue (UI)	4. <unit-of-issue>
5. Quantity on Hand	5. <qty-on-hand>
6. Quantity Inventoried	6. <qty-inventoried>

5.2.3.4.5 Cost data. Cost data provide information on the costs for performing a maintenance function. Table 13 includes data on manhours, direct/indirect labor costs, parts cost and total maintenance cost.

TABLE 13. Cost data

Data Element Title	Data Element Name/Attributes
1. Military Direct Labor: a. Manhours b. Total Manhours c. Cost d. Total Cost	1. <labor-data status="military" type="direct"> a. <manhours-expend cumulative="no"> b. <manhours-expend cumulative="yes"> c. <manhours-cost cumulative="no"> d. <manhours-cost cumulative="yes">
2. Civilian Direct Labor: a. Manhours b. Total Manhours c. Cost d. Total Cost	2. <labor-data status="civilian" type="direct"> a. <manhours-expend cumulative="no"> b. <manhours-expend cumulative="yes"> c. <manhours-cost cumulative="no"> d. <manhours-cost cumulative="yes">
3. Total Direct Labor Cost	3. <total-cost>
4. Military Indirect Labor: a. Manhours b. Total Manhours c. Cost d. Total Cost	4. <labor-data status="military" type="indirect"> a. <manhours-expend cumulative="no"> b. <manhours-expend cumulative="yes"> c. <manhours-cost cumulative="no"> d. <manhours-cost cumulative="yes">
5. Civilian Indirect Labor: a. Manhours b. Total Manhours c. Cost d. Total Cost	5. <labor-data status="civilian" type="indirect"> a. <manhours-expend cumulative="no"> b. <manhours-expend cumulative="yes"> c. <manhours-cost cumulative="no"> d. <manhours-cost cumulative="yes">
6. Indirect Labor Cost	6. <total-cost>

Data Element Title	Data Element Name/Attributes
7. Repair Parts Cost	7. <repair-cost-data>
8. Cost of Transportation to Ship Equipment or Component to/from Repair Facility	8. <transportation-cost>
9. Cost of Inventory Management: a. National Inventory Control Point (NICP) b. Major Subordinate Command (MSC) c. PATS Contractor d. Other	9. <inventory-cost-data> a. <transportation-cost holder="nicp"> b. <transportation-cost holder="msc"> c. <transportation-cost holder="pats"> d. <transportation-cost holder="other">
10. Cost of Software Maintenance	10. <sw-maint-cost>
11. Cost of Software Engineering Change	11. <sw-engr-change-cost>
12. Cost of Software Engineering Change Test and Evaluation	12. <sw-engr-change-test-cost>
13. Cost to Develop Modification	13. <mod-develop-cost>
14. Cost to Validate and Verify Modification	14. <mod-validate-cost>
15. SRA Overhead Cost	15. <overhead-cost>
16. Total Cost of Maintenance	16. <total-cost>

5.2.4 Fault data. Fault data provide information on a piece of equipment, component or module that has a deficiency or shortcoming. The fault is discovered during equipment operations, scheduled or unscheduled inspections and/or maintenance operations.

5.2.4.1 Environmental conditions data. Table 14 provides information on the environmental conditions that existed during equipment operations. Such conditions may have affected the equipment's performance, precipitated a deficiency, or caused a deficiency/failure. These conditions are also considered during performance assessment and diagnostic testing.

TABLE 14. Environmental conditions data

Data Element Title	Data Element Name/Attributes
1. Type Physical Environment: a. Mud b. Rain c. Fungus d. Sleet e. Snow f. Sand g. Wind h. Water: 1) Fresh Water 2) Salt Water	1. <environment> a. <mud> b. <rain> c. <fungus> d. <sleet> e. <snow> f. <sand> g. <wind> h. <water> 1) <water type="fresh"> 2) <water type="salt">
2. Temperature	2. <environment temperature="xx" temperature-scale="xx">
3. Humidity	3. <environment humidity="xx">
4. Altitude	4. <environment altitude="xx" altitude-units="xx">
5. Terrain	5. <environment terrain="flat"> <environment terrain="hills"> <environment terrain="marsh"> <environment terrain="mountains">
6. Other	6. <remarks>

5.2.4.2 Operations/maintenance fault information. Table 15 provides information on faults and deficiencies discovered during equipment operation, during diagnostic testing, during the conduct of scheduled/unscheduled technical inspections, and during performance of maintenance at all levels. The information includes when faults were found, how faults were found, how faults were recognized, and the effects on the operation or mission. It also covers data inputs from maintenance services and other technical inspections such as aircraft transfer or acceptance inspections.

TABLE 15. Operations/maintenance fault data

Data Element Title	Data Element Name/Attributes
1. Date	1. <date-time>
2. Type Inspection	2. <insp-type>
3. System Status	3. <status-symbol>
4. System Code	4. <system-code>
5. Diagnostic Test: a. Number b. Name c. Description d. Unit Measurement e. Reading: 1) LCF1 2) LCF2 3) TTI 4) Operating Hours	5. <diag-test-data> a. <itemno> b. <diag-test> c. <desc> d. <unit-meas> e. <current-cumul-reading> 1) <current-cumul-reading type="lcf1"> 2) <current-cumul-reading type="lcf2"> 3) <current-cumul-reading type="tti"> 4) <current-cumul-reading type="op-hours">
6. Fault Number	6. <faultcode>
7. Failure Code	7. <fail-code>
8. Fault Time	8. <time>
9. Fault Remarks	9. <remarks>
10. Aircraft Hours	10. <aircraft-hours>
11. When Discovered Code	11. <fail-when-discov-code>
12. How Recognized Code	12. <how-recognized-code>
13. Malfunction Effect Code	13. <malfunction-effect-code>
14. Delay: a. Work Order Number b. Manhours: 1) Direct 2) Indirect c. Requisition Number d. Part Number e. Serial Number	14. <delay-info> a. <won> b. <manhours-proj> 1) <manhours-proj type="direct"> 2) <manhours-proj type="indirect"> c. <reqno> d. <partno> e. <serialno>
15. Work Unit Code (WUC)	15. <wuc>

5.2.4.3 Fault correcting information. Table 16 provides information on when and how a fault, deficiency or condition has been corrected. It includes information on the corrective action taken, level of maintenance performed and manhours required.

TABLE 16. Fault correcting data

Data Element Title	Data Element Name/Attributes
1. Date-Time	1. <date-time>
2. Aircraft Hours	2. <aircraft-hours>
3. Rounds	3. <rounds>
4. Action Code	4. <action-code>

Data Element Title	Data Element Name/Attributes
5. Work Unit Code (WUC)	5. <wuc>
6. Action	6. <action>
7. PID	7. <pid>
8. Level of Maintenance	8. <maintlvl>
9. Manhours: a. Direct b. Indirect	9. <manhours-expend> a. <manhours-expend type="direct"> b. <manhours-expend type="indirect">
10. Technical Inspector Data: a. TIPID b. Manhours: 1) Direct 2) Indirect	10. <tech-inspector-data> a. <tipid> b. <manhours-expend> 1) <manhours-expend type="direct"> 2) <manhours-expend type="indirect">

5.2.4.4 Related maintenance actions data. Table 17 documents additional related maintenance actions or work that was necessary and accomplished while clearing major faults or deficiencies, and reported conditions.

TABLE 17. Related maintenance actions data

Data Element Title	Data Element Name/Attributes
1. Date-Time	1. <date-time>
2. Status	2. <status-symbol>
2. Serial Number	3. <serialno>
4. System Code	4. <system-code>
5. Fault Date	5. <date-fault>
6. Fault Number	6. <faultcode>
7. Failure Code	7. <fail-code>
8. Fault	8. <fault>
9. Related Maintenance Actions: a. Condition Status b. Related Maintenance Actions c. Corrective Action d. Level of Maintenance e. Maintenance Manhours (MMH): 1) Direct 2) Indirect	9. <maint-action-record> a. <status-symbol> b. <maint-action> c. <action> d. <maintlvl> e. <manhours-expend> 1) <manhours-expend type="direct"> 2) <manhours-expend type="indirect">

5.2.4.5 Uncorrected fault data. Table 18 provides data on uncorrected faults and deferred maintenance actions (including the reason for deferral) on aviation/non-aviation equipment, associated equipment and mission related equipment.

TABLE 18. Uncorrected fault data

Data Element Title	Data Element Name/Attributes
1. Fault Date	1. <date-fault>
2. Fault Number	2. <faultcode>
3. Failure Code	3. <fail-code>
4. Fault	4. <fault>
5. Reason for Delay	5. <remarks>

5.2.4.6 Not mission capable data. Not mission capable (NMC) is a materiel condition status that indicates a piece of equipment cannot perform any of its assigned combat missions. NMC is divided into not mission capable maintenance (NMCM) or not mission capable supply (NMCS). Table 19 provides necessary data for tracking not mission capable equipment.

TABLE 19. Not mission capable data

Data Element Title	Data Element Name/Attributes
1. Not Available Reason (NAR) Code	1. <date-nar-code>
2. Original Date NMC	2. <date-nmc-orig>
3. Organization NMC Date	3. <date-nmc-org>
4. Support Level Maintenance WOR Date	4. <date-down-for-support>
5. Status/Date	5. <date-of-status>
6. Remarks	6. <remarks>
7. Support WON	7. <won>
8. Document Number	8. <docno>
9. NSN	9. <nsn>
10. Part Number	10. <partno>
11. CAGE	11. <cageno>
12. Shipment Information: a. Status b. Date	12. <ship-status-info> a. <ship-status> b. <date-for-shipment>
13. Ship Date	13. <date-shipped>
14. Deficiency	14. <deficiency>

5.2.5 IETM data. IETM data is used to provide timely information on maintenance procedures, diagnostics, fault isolation, fault descriptions, parts data, and data combinations thereof.

5.2.5.1 IETM fault result data. Table 20 covers fault diagnostics/troubleshooting data, including parts information, and is filled in accordance with a specified IETM.

TABLE 20. IETM fault result data

Data Element Title	Data Element Name/Attributes
1. Fault: a. System/Equipment b. Symptom c. Description d. Fault Code e. Date Discovered f. How Recognized g. Failure Mode h. Effect i. Fault Isolated j. Fault Corrected k. Date Corrected	1. <item-fault-data> a. <system-code> b. <symptom> c. <desc> d. <faultcode> e. <date-fault> f. <how-recognized-code> g. <fail-code> h. <effect> i. <fault-isolated> j. <fault-corrected> k. <date-fault-corrected>
2. Test/Troubleshooting: a. Date of Test/Troubleshoot b. Time of Test/Troubleshoot c. Test/Troubleshoot Type d. Test/Troubleshoot Name e. Test/Troubleshoot Description f. Mode g. Protocol h. Parameters	2. <item-test-trouble-data> a. <date-completed> b. <time-completed> c. <type> d. <name> e. <desc> f. <mode> g. <protocol> h. <parameters>

Data Element Title	Data Element Name/Attributes
i. Measurement j. Reading	i. <measurement> j. <current-cumul-reading>
3. Environment Data	3. <environment>
4. Mission Status: a. Status b. Capability 1) Full 2) Reduced 3) None	4. <item-mission-status-data> a. <status-symbol> b. <mission-capability> 1) <mission-capability capability="full"> 2) <mission-capability capability="reduced"> 3) <mission-capability capability="none">
5. Technical Manual Data: a. Publication Number b. Date c. Version	5. <reference> a. <tmno> b. <date> c. <chgno>

5.2.5.2 IETM maintenance reporting data. Table 21 covers data resulting from maintenance actions performed, including parts information, and is filled in accordance with a specified IETM.

TABLE 21. IETM maintenance reporting data

Data Element Title	Data Element Name/Attributes
1. Maintenance Action Performed: a. System/Equipment/Component b. Type Action c. Priority d. Date Performed e. Completed f. Time Started g. Time Completed	1. <maint-performed> a. <system-code> b. <maint-action> c. <priority> d. <date-performed> e. <date-completed> f. <time-started> g. <time-completed>
2. Status	2. <status-symbol>
3. Parts Data: a. Parts Ordered: 1) Part Number 2) Part Name 3) Source, Maintenance, Recoverability (SMR) Code 4) CAGE Code 5) NSN 6) NIIN 7) Quantity 8) Date 9) Time b. Parts Received: 1) Part Number 2) Part Name 3) SMR Code 4) CAGE Code 5) NSN 6) NIIN 7) Quantity 8) Date 9) Time	3. <ietm-parts-data> a. <parts-ordered-info> 1) <partno> 2) <nomen> 3) <smr> 4) <cageno> 5) <nsn> 6) <niin> 7) <qty> 8) <date> 9) <time> b. <parts-received-info> 1) <partno> 2) <nomen> 3) <smr> 4) <cageno> 5) <nsn> 6) <niin> 7) <qty> 8) <date> 9) <time>
4. Parts Removed	4. <parts-removed>
5. Parts Installed	5. <parts-installed>
6. Returned to Stock	6. <part-returned-info>

Data Element Title	Data Element Name/Attributes
a. Reason Condition Code b. Comment	a. <code> b. <remarks>
7. Technical Manual Data: a. Publication Number b. Date c. Version	7. <reference> a. <tmno> b. <date> d. <chgno>

5.2.6 Army oil analysis program data. The Army Oil Analysis Program (AOAP) is a diagnostic tool that provides information on equipment reliability and readiness. The data is analyzed to detect early failures and to lower costs by precluding catastrophic equipment failures.

5.2.6.1 Oil analysis request data. Table 22 covers oil analysis request data that identifies the equipment from which the oil sample was taken, provides an operating and servicing history of the equipment, and identifies discrepancies/malfunctions when applicable. This data is furnished by the operating and maintenance activities to the Army Oil Analysis Program laboratories.

TABLE 22. Oil analysis request data

Data Element Title	Data Element Name/Attributes
1. Destination Information	1. <destination>
2. From	2. <unit-activity>
3. Nomenclature	3. <nomen>
4. Model Number	4. <modelno>
5. Serial Number	5. <serialno>
6. End Item Model Number	6. <end-item-modelno>
7. Hull Number	7. <hullno>
8. End Item Serial Number	8. <end-item-serialno>
9. EIC	9. <eic>
10. Date Sample Taken	10. <date-sample-taken>
11. Hours Since Overhaul	11. <hours-since-overhaul>
12. Miles/Kilometers Since Overhaul	12. <miles-kilometers-since-overhaul>
13. Hours Since Oil Change	13. <hours-since-oil-change>
14. Miles/Kilometers Since Oil Change	14. <miles-kilometers-since-oil-change>
15. Reason for Sample	15. <reason>
16. Quantity Oil Added Since Last Sample	16. <qty-oil-added>
17. Action Taken	17. <maint-action>
18. Discrepant Item	18. <discrepant-item>
19. How Malfunctioned	19. <how-malfunctioned>
20. How Found	20. <how-found>
21. How Taken	21. <how-taken>
22. Sample Temperature	22. <temp>
23. Type Oil	23. <oil-grade>
24. Equipment Usage Information	24. <eqp-usage-info>

5.2.6.2 Oil analysis and recommendation feedback data. Table 23 provides feedback data from the oil analysis laboratory of equipment/component oil condition as a result of applying quantitative measurement of metal and other contaminants in the sample.

TABLE 23. Oil analysis and recommendation feedback data

Data Element Title	Data Element Name/Attributes
1. Destination Information	1. <destination>
2. From	2. <unit-activity>
3. Lab Recommendation Number	3. <lab-recommend-no>
4. End Item Model Number	4. <end-item-modelno>
5. End Item Serial Number	5. <end-item-serialno>
6. Component Type	6. <comp -type>
7. Component Serial Number	7. <comp -serialno>
8. Component Hours	8. <comp -hours>
9. Component Miles/Kilometers	9. <comp -miles-kilometers>
10. Recommendation and Reason for Action	10. <reason>
11. Initiator Name	11. <initiator-name>
12. Initiator Title	12. <initiator-title>
13. Date	13. <date>
14. QDR Number	14. <qdrno>
15. Feedback (Diagnostics and Discrepancies)	15. <remarks>

5.2.7 Quality assurance. Quality Assurance is pertinent to Category I and Category II Deficiency Reports on equipment, aircraft and aircraft associated equipment. It includes data on faults, failures, and problems in design, operation, maintenance, manufacture, and overhaul or rebuild of aviation end items and components.

5.2.7.1 Product quality deficiency data. Product quality deficiency is a nonconforming condition that limits or prevents the product from fulfilling its purpose. Table 24 includes data on defects in design, specification, material, manufacture, overhaul, rebuild and workmanship.

TABLE 24. Product quality deficiency data

Data Element Title	Data Element Name/Attributes
1. Category I/II Deficiency Data:	1. <category-I-deficiency> <category-II-deficiency>
a. Date of Report	a. <date-time>
b. Unit	b. <unit-name>
c. Location	c. <location>
d. Subject	d. <subject>
e. Point of Contact:	e. <name>
f. Report Control Number:	f. <cntrlno>
g. Date Deficiency Discovered:	g. <date-fault>
h. Shipper, City, State, Zip	h. <shipper-data>
1. name	<name>
2. city	<city>
3 state	<state>
4. zip	<zip>
i. Serial/Lot/Batch Numbers:	i. <serialno>
j. Lot number	j. <lotno>
k. Batch number	k. <batchno>
l. Item New	l. <item-new>

Data Element Title	Data Element Name/Attributes
m. Date received (RCVD) or manufactured:	m. <item-received>
n. Repaired/Overhauled	n. <item-repaired>
o. Date RCVD, MFRD, Repaired, Overhauled or Rebuilt:	o. <date-repaired>
p. Operating Time at Failure:	p. <op-time-at-failure>
1) Time Since New (TSN)	1) <op-time-at-failure units="time-since-new">
2) Time Since Overhaul (TSO)	2) <op-time-at-failure units="time-since-overhaul">
3) Miles	3) <op-time-at-failure units="miles">
4) Kilometers	4) <op-time-at-failure units="kilometers">
5) Cycles	5) <op-time-at-failure units="cycles">
6) Hours	6) <op-time-at-failure units="hours">
7) EFC Rounds	7) <op-time-at-failure units="efc-rounds">
8) Date Vehicle First Used	8) <op-time-at-failure units="date-vehicle-first-used">
q. Government Furnished Equipment	q. <gfe>
r. Quantity Received	r. <qty-received>
s. Quantity Inspected	s. <qty-inspected>
t. Quantity Deficient	t. <qty-deficient>
u. Quantity In Stock	u. <qty-on-hand>
v. Deficient Item Works On/With:	v. <deficient-item-with-end-item>
1) Type, Model, Series	1) <make-model-type>
2) End Item Serial Number	2) <end-item-serialno>
3) NSN	3) <nsn>
w. Deficient Item Next Higher Assembly:	w. <deficient-item-with-nha>
1) NSN	1) <nha-nsn>
2) Nomenclature	2) <nha-nomen>
3) Part Number	3) <nha-partno>
4) Serial Number	4) <nha-serial-no>
5) Lot Number	5) <nha-lotno>
x. Unit Cost	x. <unit-cost>
y. Estimated Repair Cost	y. <est-repair-cost>
z. Items Under Warranty	z. <in-warranty>
aa. Action/Disposition	aa. <deficiency-disposition>
bb. Deficiency Summary:	bb. <deficiency-summary>
1) Utilization Code	1) <utiliz-code>
2) When Fault Was Discovered	2) <date-fault>
3) How Recognized	3) <how-recognized-code>
4) Malfunction Effect on Mission	4) <malfunction-effect-code>
5) TM Number:	5) <reference>
b) TM Date	a) <date>
c) Page/Work Package Number	b) <wpno>
d) Figure Identification	c) <figref>
e) Item Number	d) <itemref>
cc. Total Aircraft Hours	cc. <op-hours>
dd. Time Since Installation	dd. <hours-since-install>
ee. Failure Code	ee. <fail-code>
ff. Circumstances Prior to Difficulty	ff. <circumstanc-before-difficulty>
gg. Description of Difficulty	gg. <desc>
hh. Cause	hh. <reason>
ii. Action Taken	ii. <maint-action>
jj. Recommendations	jj. <recommendation>
kk. Location of Deficient Material	kk. <deficient-material-location>

5.2.8 Ammunition data requirements. Ammunition data shall be provided. Ammunition data shall be developed and recorded using the relational tables described in the following paragraphs.

5.2.8.1 Ammunition accounting data. Table 25, in conjunction with Tables 1 through 3, provides inventory accountability on ammunition, explosive materiel, guided missiles and serial numbered components. It includes changes to serial numbered components as they are entered into the inventory.

TABLE 25. Ammunition accounting data

Data Element Title	Data Element Name/Attributes
1. Quantity in Lot	1. <qty-in-lot>
2. Net Quantity	2. <qty>
3. Packing of Lot	3. <packing-of-lot>
4. Drawing Number	4. <dwgno>
5. Revision Number	5. <chgno>
6. Specification & Revision	6. <specno>
7. Date Started	7. <date-start>
8. Date Completed	8. <date-end>
9. Date Inspected	9. <date-inspected>
10. Quantity Inspected	10. <qty-inspected>
11. Quantity Defective	11. <qty-deficient>
12. Condition	12. <condition>
13. Estimated Repair/Disposal/Maintenance Cost	13. <est-repair-cost>
14. Pull Date	14. <date-ammo-pulled>
15. Line	15. <line>
16. Zone or Charge Number	16. <zone>
17. Charge Weight	17. <charge-weight>
18. Index of Powder	18. <index-of-powder>
19. Explosive Weight per Package	19. <explos-weight-per-pack>
20. Expected Muzzle Velocity	20. <exp-muzzle-velocity>
21. Expected Pressure	21. <exp-pressure>
22. Shell Weight	22. <shell-weight>
23. Number of Test Samples	23. <no-of-samples>
24. Sent to	24. <sent-to-data>
25. Date of Shipment	25. <date-shipped>
26. Mode of Shipment	26. <mode-of-shipment>
27. Component Information: a. Name b. Serial Number c. Drawing Number d. Revision Letter e. Engineering Orders (EO) f. Model Number g. Manufacture h. Date Manufactured i. Lot Number j. Quantity	27. <component-data> a. <nomen> b. <serialno> c. <dwgno> d. <chgno> e. <engr-orders> f. <modelno> g. <manuf-name> h. <date-of-manuf> i. <lotno> j. <qty>

5.2.8.2 Ammunition condition data. Table 26 provides information on unserviceable and permanently suspended ammunition items other than special weapons and is predicated on periodic inspection, receipt inspection, safety-in-storage inspection, or special inspection. This information is pertinent to Ammunition Inspector, Quality Assurance and Surveillance Personnel.

TABLE 26. Ammunition condition data

Data Element Title	Data Element Name/Attributes
1. Destination Data	1. <destination>
2. From	2. <unit-activity>
3. Commodity: a. Chemical b. Guided Missile c. Conventional	3. <commodity-type> a. <commodity-type type="chemical"> b. <commodity-type type="guided-missile"> c. <commodity-type type="conventional">
4. Equipment Installed on: a. Nomenclature b. Part Number c. CAGE d. NSN e. Serial Number f. Lot Number g. Date of Manufacture h. Quantity in Lot	4. <eqp-installed-on-data> a. <nomen> b. <partno> c. <cageno> d. <nsn> e. <serialno> f. <lotno> g. <date-of-manuf> h. <qty-in-lot>
5. Quantity Inspected	5. <qty-inspected>
6. Quantity Defective	6. <qty-deficient>
7. Present Condition Code	7. <condition-code>
8. ECON Repairable	8. <econ-repairable>
9. Use (War Reserve/Training)	9. <ammo-use>
10. Reason for ACR Initiation	10. <reason>
11. Defects Encountered	11. <defects>
12. Owner/Account	12. <owner-account>
13. Cause	13. <reason>
14. Action	14. <maint-action>
15. Disposition	15. <disposition>
16. Originator PID	16. <originator-pid>
17. Releasing Authority PID	17. <releasing-authy-pid>

5.2.8.3 Ammunition peculiar equipment utilization. Table 27 provides information on Ammunition Peculiar Equipment (APE) that is on hand, its operational status, and verification of equipment need and distribution.

TABLE 27. Ammunition peculiar equipment utilization data

Data Element Title	Data Element Name/Attributes
1. Destination Information	1. <destination>
2. From	2. <unit-activity>
3. Number of Pieces of APE on Hand	3. <qty-on-hand>
4. Utilization Code	4. <utiliz-code>
5. APE Management Number (AMN)	5. <amn>
6. Nomenclature	6. <nomen>
7. Serial Number	7. <serialno>
8. Hours of Use	8. <hours>
9. Rounds	9. <rounds>
10. Status Code: a. First Position b. Second Position	10. <position-status> a. <position-status first="xx"> b. <position-status second="xx">
11. Remarks	11. <remarks>

5.2.9 Parts requisitioning data requirements. Parts requisitioning data for the weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be provided. Parts requisitioning data shall be developed and recorded using the relational tables described in the following paragraphs.

5.2.9.1 General Requisition data. Table 28 provides requisition information pertinent to document identification and tracking data, item description and supplementary information such as priority and required delivery date.

TABLE 28. General requisition data

Data Element Title	Data Element Name/Attributes
1. Document Identifier Code (DIC)	1. <dic>
2. Routing Identifier Code (RIC)	2. <ric>
3. Media and Status Code (M&S)	3. <media-status-code>
4. NSN	4. <nsn>
5. Part Number	5. <partno>
6. CAGE	6. <cageno>
7. Unit of Issue	7. <unit-of-issue>
8. Quantity	8. <qty>
9. Document Number: a. Service b. Requisitioner c. Date d. Serial Number	9. <document-req-data> a. <service> b. <unit-activity> c. <date> d. <serialno>
10. Demand Code	10. <demand-code>
11. Supplementary Address	11. <supplementary> a. <unit-activity>
12. Signal Code	12. <signal-code>
13. Fund Code	13. <fund-code>
14. Distribution Code	14. <distrib-code>
15. Project Code	15. <project-code>
16. Priority Designator	16. <priority>
17. Required Delivery Date (RDD)	17. <date-required>
18. Advice Code	18. <advice-code>
19. Routing Identifier Code (RIC)	19. <ric>
20. Ownership Code	20. <ownership-code>
21. Condition Code	21. <condition-code>

5.2.10 Technical manual data. This section provides information on technical manual usage that includes maintenance reporting data, management data, system feedback data, and IETM analysis and parts requirements data.

5.2.10.1 Technical manual (non-IETM) deficiency reporting. Table 29 provides feedback information on technical manual deficiencies and/or recommended changes to a specified technical manual.

TABLE 29. Technical manual deficiency data

Data Element Title	Data Element Name/Attributes
1. TM/ETM/IETM Data: a. Reference 1) Publication Number 2) Date b. Version	1. <tm-data> a. <reference> 1) <tmno> 2) <date> b. <chgno>
1. Submitter/User: b. Name b. Address c. Unit/Organization d. Telephone e. E-Mail Address f. FAX Number	2. <tm-user-data> a. <name> b. <address> c. <unit-name> d. <telephone> e. <email> f. <fax>
3. Error Report: a. Work Package Number b. Work Package title c. Page Number d. Paragraph Number e. Paragraph/Task/Subtask Title f. Date Discovered g. Time h. Remarks	3. <tm-error-report> a. <wpno> b. <title> c. <pageref> d. <pararef> e. <referenced-title> f. <date-discovered> g. <time> h. <remarks>
4. Change Request: a. Work Package Title b. Work Package Number c. Page Number d. Paragraph Number e. Paragraph/Task/Subtask Title f. Date Discovered g. Time h. Remarks	4. <tm-change-request> a. <title> b. <wpno> c. <pageref> d. <pararef> e. <referenced-title> f. <date-discovered> g. <time> h. <remarks>

5.2.10.2 IETM deficiency reporting. Table 30 provides feedback information on IETM deficiencies and/or recommended changes to a specified IETM.

TABLE 30. IETM deficiency data

Data Element Title	Data Element Name/Attributes
1. TM/ETM/IETM Data: a. Reference 1) Publication Number 2) Date 3) Version	1. <tm-data> a. <reference> 1) <tmno> 2) <date> 3) <chgno>
2. Submitter/User: a. Name b. Address c. Unit/Organization d. Telephone e. E-Mail Address f. FAX Number	2. <tm-user-data> a. <name> b. <address> c. <unit-name> d. <phone> e. <email> f. <fax>
3. Error Report: a. Subject/Paragraph/Task/Subtask/Other Title	3. <ietm-error-report> a. <referenced-title>

Data Element Title	Data Element Name/Attributes
b. Date Discovered c. Time d. Remarks	b. <date-discovered> c. <time> d. <remarks>
4. Change Request: a. Subject/Paragraph/Task/Subtask/Other Title b. Date Discovered c. Time d. Remarks	4. <ietm-change-request> a. <referenced-title> b. <date-discovered> c. <time> d. <remarks>

5.3 Aviation data requirements. Aviation data requirements provide necessary information to manage operations and maintenance, control the use, and report warranty actions and deficiencies on Army aircraft and aviation-associated equipment. Aviation-associated equipment is construed to mean related mission equipment such as armament systems, electronic systems, aircraft training devices, aircraft simulators and life support equipment. Cross functional data requirements pertinent to equipment identification, personnel, inspections, fault and costing data are addressed in Section 5.2.

5.3.1 Operational data requirements. Operational data about the weapon systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be provided. Operational data shall be developed and recorded using the relational tables described in the following paragraphs.

5.3.1.1 Flight data. Table 31 contains data that provide an historical account of daily flight operations (including aircraft simulators). The information is used for aircrew and maintenance considerations.

TABLE 31. Flight data

Data Element Title	Data Element Name/Attributes
1. Date	1. <date-time>
2. Flight Number	2. <flightno>
3. From	3. <from-info> <location> <time>
4. Interim	4. <interim-info> <location> <arrival-time> <departure-time>
5. To	5. <to-info> <location> <time>
6. Hours for the Flight	6. <flight-hours hours-current="xx">
7. Hours for the Mission Day	7. <flight-hours hours-for-mission-day="xx">
8. Total Flight Hours	8. <flight-hours hours-total="xx">
9. Landings for Flight	9. <number-of-landings for-flight="xx">
10. Landings for Mission Day	10. <number-of-landings type="std" for-mission-day="xx">
11. Total Landings	11. <number-of-landings type="std" total="xx">
12. Auto Rotations for Flight	12. <number-of-landings type="auto" total="xx">
13. Auto Rotations for Mission Day	13. <number-of-landings type="auto" for-mission-day="xx">
14. Total Auto Rotations	14. <number-of-landings type="auto" for-flight="xx">
15. Auxiliary Power Unit (APU) Starts/Hours: a. Hours Current b. Hours for Mission Day	15. <apu-starts-hours> a. <apu-starts-hours hours-current="xx"> b. <apu-starts-hours hours-for-mission-

Data Element Title	Data Element Name/Attributes
c. Hours Total d. Starts Last Mission Day e. Starts for Mission Day f. Starts Total g. Meter Hours Current h. Meter Hours Total	day="xx"> c. <apu-starts-hours hours-total="xx"> d. <apu-starts-hours starts-last-mission-day="xx"> e. <apu-starts-hours starts-for-mission-day="xx"> f. <apu-starts-hours starts-total="xx"> g. <apu-starts-hours meter-hours-current="xx"> h. <apu-starts-hours meter-hours-total="xx">
16. Engine Starts: a. For Flight: 1) Engine Number 2) Starts b. For Mission Day: 1) Engine Number 2) Starts c. Engine Total: 1) Engine Number 2) Starts d. HIT Check: 1) Engine Number 2) Deviation	16. <eng-start-data> a. <eng-start-data data-for="flight"> 3) <eng-no> 4) <eng-starts> b. <eng-start-data data-for="mission-day"> 3) <eng-no> 4) <eng-starts> c. <eng-start-data data-for="totals"> 3) <eng-no> 4) <eng-starts> d. <hit-check-data> 3) <eng-no> 4) <deviation>
17. Mission ID STD	17. <mission-id-std>
18. Landing Gear Cycles: a. Flight b. Mission Day c. Total Cycles	18. <landing-gear-cycles> a. <landing-gear-cycles for-flight="xx"> b. <landing-gear-cycles for-mission-day="xx"> c. <landing-gear-cycles total="xx">
19. Hot Section Factor (HSF) Counts: a. Flight b. Mission Day b. Total	19. <hsf-counts> a. <hsf-counts for-flight="xx"> b. <hsf-counts for-mission-day="xx"> c. <hsf-counts total="xx">
21. Rounds Fired: a. Ammunition Type b. Flight c. Mission Day d. Total	6. <rounds-fired-data> a. <ammo-type> b. <rounds-fired-data rounds-fired-for-flight="xx"> c. <rounds-fired-data rounds-fired-for-mission-day="xx"> d. <rounds-fired-data rounds-fired-total="xx">

5.3.1.2 Flight manual exceedance data. Table 32 provides information on flight operations that have exceeded the limitation criteria for the airframe and/or one or more of its systems as stipulated by the governing flight manual. Exceedance data can include but is not limited to acceleration, overspeed, vibration, gross weight, etc.

TABLE 32. Flight manual exceedance data

Data Element Title	Data Element Name/Attributes
1. Date	1. <date-time>
2. Code	2. <code>
3. Parameter	3. <parameter>
4. Value	4. <value>
5. Duration	5. <duration>
6. Number Of Activations/Events	6. <number-of-events>
7. Remarks	7. <remarks>

5.3.1.3 System status data. Table 33 provides data on aircraft and aviation associated equipment condition status. The data include the most serious uncorrected faults for the aircraft and its mission related systems.

TABLE 33. System status data

Data Element Title	Data Element Name/Attributes
1. Date	1. <date-time>
2. Aircraft Status	2. <system-status status-for="aircraft">
3. Armament Status	3. <system-status status-for="armament">
4. Electronic Status	4. <system-status status-for="electronic">
5. Other	5. <system-status status-for="other">
6. Status	6. <status-symbol>

5.3.1.4 Armament information. Armament information provides an historical account of the aircraft's armament system, both from operational and maintenance perspectives. Such considerations as accuracy, reliability and safety are inclusive for complete data inputs.

5.3.1.4.1 Armament system data. Table 34 provides data on rounds fired, maintenance actions and component replacement during the service life of the armament systems installed on the aircraft.

TABLE 34. Armament system data

Data Element Title	Data Element Name/Attributes
1. Date Fired	1. <date-fired>
2. Equipment Operating Time	2. <op-hours>
3. Cannon Model Number	3. <modelno>
4. Serial Number Cannon Tube	4. <serialno>
5. Rounds Fired: a. Type Ammunition b. Flight c. Mission Day d. Total	5. <rounds-fired-data> a. <ammo-type> b. <rounds-fired-data rounds-fired-for-flight="xx"> c. <rounds-fired-data rounds-fired-for-mission-day="xx"> d. <rounds-fired-data rounds-fired-total="xx">
6. Laser Pulses: a. Flight b. Mission Day c. Total	6. <laser-pulses-data> a. <laser-pulses-data laser-pulses-for flight="xx"> b. <laser-pulses-data laser-pulses-for mission-day="xx"> c. <laser-pulses-data laser-pulses-total="xx">
7. Remarks	7. <remarks>

5.3.1.4.2 Armament system sighting data. Table 35 provides information on data constants, bore sight harmonization computer data and other sighting information for armament subsystem assemblies installed on aircraft.

TABLE 35. Armament system sighting data

Data Element Title	Data Element Name/Attributes
1. Thumb Wheel Setting	1. <thumbwheel-setting>
2. Correctors: a. Equipment Type b. Milliradian: 1) Date 2) Elevation 3) Rate Pitch 4) Yaw 5) Roll 6) Azimuth	2. <correctors-data> a. <type> b. <milliradian-data> 1) <date> 2) <elevation> 3) <rate-pitch> 4) <yaw> 5) <roll> 6) <azimuth>
3. Data Constants	3. <data-constants>
4. Mast Mounted Sight Components Serial Number	4. <serialno>

5.3.2 Maintenance data requirements. Maintenance data about the weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be provided. Maintenance data shall be developed and recorded using the relational tables described in the following paragraphs.

5.3.2.1 Component maintenance data. Component maintenance data cover aircraft and associated equipment items that have been selected by the Army Materiel Command for the accumulation and reporting of maintenance data. These reportable components are classified as Time Change (TC); Time Between Overhaul (TBO); Retirement Life Component, Replacement Component (RC); and Condition Change (CC) Items.

5.3.2.1.1 Component data. Table 36 provides data for tracking component usage and failure codes.

TABLE 36. Component data

Data Element Title	Data Element Name/Attributes
1. Control Number	1. <cntrlno>
2. Number of Previous Overhauls	2. <no-previous-overhauls>
3. Time Since Last Installed (Hours)	3. <hours-since-install>
4. Time Since New (Hours)	4. <hours-since-new>
5. Time Since Overhaul (Hours)	5. <hours-since-overhaul>
6. Failure Code	6. <fail-code>
7. Position	7. <eng-position>
8. Hot Section Factor (HSF) Counts	8. <hsf-counts>
9. Meter Hours	9. <meter-hours>
10. Work Unit Code (WUC)	10. <wuc>
11. Component Cumulative Counts/Hours: a. LCF 1 b. LCF 2 c. TTI d. Total Operating Hours	11. <current-cumul-reading> a. <current-cumul-reading type="lcf1" cumulative="yes"> b. <current-cumul-reading type="lcf2" cumulative="yes"> c. <current-cumul-reading type="tti" cumulative="yes"> d. <current-cumul-reading type="op-hours" cumulative="yes">

Data Element Title	Data Element Name/Attributes
12. APU Starts Since New (SSN)	12. <apu-starts-hours starts-since-new="xx">
13. APU Hours	13. <apu-starts-hours hours-total="xx">
14. APU Starts Since Overhaul (SSO)	14. <apu-starts-hours starts-since-overhaul="xx">
15. Software Version	15. <sw-version>

5.3.2.1.2 Removal data. Table 37 provides information on the aircraft, component or assembly from which the reportable item was removed.

TABLE 37. Removal data

Data Element Title	Data Element Name/Attributes
1. Removed From (Nomenclature NHA)	1. <nha-nomen>
2. NSN (NHA)	2. <nha-nsn>
3. Part Number (NHA)	3. <nha-partno> <cageno>
4. Serial Number (NHA)	4. <nha-serialno>
5. Hours (NHA)	5. <op-hours source="nha">
6. NHA Cumulative Counts/Hours	6. <current-cumul-reading="NHA">
7. APU Start Meter	7. <apu-starts-hours meter-counts-at-removal="xx">
8. APU Hour Meter	8. <apu-starts-hours meter-hours-at-removal="xx">
9. History Recorder Serial Number	9. <history-recorder-serialno>
10. History Recorder Reading	10. <current-cumul-reading="history">
11. Aircraft Model	11. <acft-modelno>
12. Aircraft Serial Number	12. <acft-serialno>
13. Maintenance Level	13. <maintlvl>
14. Date Removed	14. <date-removed>
15. Manhours to Remove	15. <manhours-expend>
16. Malfunction Code	16. <malfunction-effect-code>
17. When Discovered Code	17. <fail-when-discovered-code>
18. Remarks	18. <remarks>

5.3.2.1.3 Repair/overhaul/gain data. Table 38 provides information on the organizations that test, repair, modify, overhaul or rebuild the reportable item.

TABLE 38. Repair/overhaul/gain data

Data Element Title	Data Element Name/Attributes
1. Date Checked	1. <date-checked>
2. Manhours to Repair/Overhaul	2. <manhours-expend>
3. Inspection and Action Codes	3. <insp-action-code>
4. Reason for Gain	4. <reason>
5. Contract Number	5. <contract-no>
6. Maintenance Level	6. <maintlvl>
7. Actual Failure Code	7. <fail-code>
8. SRA/ESRA	8. <sra-esra>
9. Parts Replaced During Overhaul: a. Nomenclature b. Failure Code c. Quantity d. Maintenance Action Code e. Part Number d. Serial Number	9. <parts-replaced-data> a. <nomen> b. <fail-code> c. <qty> d. <action-code> e. <partno> f. <serialno>

Data Element Title	Data Element Name/Attributes
10. Cumulative Counts/Hours Last Depot Repair: a. LCF 1 b. LCF 2 c. TTI d. Operating Hours	12. <current-cumul-reading> a. <current-cumul-reading type="lcf1" cumulative="yes"> b. <current-cumul-reading type="lcf2" cumulative="yes"> c. <current-cumul-reading type="tti" cumulative="yes"> d. <current-cumul-reading type="op-hours" cumulative="yes">
11. Remarks	11. <remarks>

5.3.2.1.4 Installation/loss data. Table 39 provides information on the aircraft, component, or assembly on which the reportable item is installed, including the organization that installed the item. It also provides usage data and inventory loss data.

TABLE 39. Installation/loss data

Data Element Title	Data Element Name/Attributes
1. Installed On (Nomenclature NHA)	1. <nha-nomen>
2. NSN (NHA)	2. <nha-nsn>
3. Part Number (NHA)	3. <nha-partno> <nha-cageno>
4. Serial Number (NHA)	4. <nha-serialno>
5. Hours (NHA)	5. <op-hours>
6. NHA Cumulative Counts/Hours	6. <current-cumul-reading="NHA">
7. APU Start Meter	7. <apu-starts-hours meter-counts-at-installation="xx">
8. APU Hour Meter	8. <apu-starts-hours meter-hours-at-installation="xx">
9. History Recorder Serial Number	9. <history-recorder-serialno>
10. History Recorder Reading	10. <current-cumul-reading="history">
11. Aircraft Model	11. <acft-modelno>
12. Aircraft Serial Number	12. <acft-serialno>
13. Maintenance Level	13. <maintlvl>
14. Date Installed	14. <date-installed>
15. UIC (This Action)	15. <uic>
16. Manhours (To Install)	16. <manhours-expend>
17. Reason for Loss	17. <reason>
18. New NSN	18. <nsn>
19. New Part Number	19. <partno>
20. Inspection and Action Codes	20. <insp-action-code>
21. Shipped to: a. Name b. Location c. UIC d. Date Shipped	21. <shipped-to-data> a. <name> b. <location> c. <uic> d. <date-shipped>

5.3.2.2 Aviation life support equipment (ALSE) data. ALSE is used in the event of flight operation emergencies to lend support and enhance the possibility for aircrew members and passengers of Army aircraft to endure and complete assigned missions. The data in this section covers tracking, by serial number; scheduling; recording; and managing maintenance operations of ALSE and aviation night vision goggles (NVGs) equipment. It covers inspection data that provides the results of maintenance checks and services, inspections, and includes information on faults discovered during equipment operation.

5.3.2.2.1 Life raft data. Table 40 provides data on the life raft inventory and maintenance inspections.

TABLE 40. Life raft data

Data Element Title	Data Element Name/Attributes
1. Type	1. <type>
2. Serial Number	2. <serialno>
3. Accessory Kit Type	3. <kit-type>
4. Kit Number	4. <kit-no>
5. Location	5. <location>
6. Flares Information: a. Lot Number b. Type c. Date Installed d. Expiration Date	6. <flares-data> a. <lotno> b. <type> c. <date-installed> d. <date-expires>
7. Radio/PLB Type/Expiration	7. <radio-plb-data> <type> <date-battery-expires>
8. SDU Type/Expiration	8. <sdu-data> <type> <date-battery-expires>
9. Date of Manufacture (DOM)	9. <date-of-manuf>
10. Fire Starter Lot Number: a. Lot Number b. Installation Date	10. <fire-starter-data> a. <lotno> b. <date-installed>
11. Desalter DOM	11. <desalter-data> <date-of-manuf>
12. First Aid Kit Due	12. <first-aid-kit-data> <date-inspection-due>
13. Ration DOM	13. <ration-data> <date-of-manuf>
14. Distress Kit Information: a. Lot Number b. Date Installed	14. <distress-kit-data> a. <lotno> b. <date-installed>
15. Initial Issue Date	15. <date-of-issue>
16. Installed Components: a. NSN b. Part Number c. CAGE d. Quantity Required e. Quantity Authorized f. Quantity On Hand (O/H)	16. <installed-component-data> a. <nsn> b. <partno> c. <cageno> d. <qty-required> e. <qty-authorized> f. <qty-on-hand>
20. Inspection Data: a. Type Inspection b. Date Inspection c. Date Due d. PID	17. <insp-data> a. <type> b. <date-inspected> c. <date-inspection-due> d. <pid>

5.3.2.2.2 Helmet and oxygen mask/connector data. Table 41 provides information on the helmet, oxygen mask/connector and NVG visor inspections, including maintenance performed.

TABLE 41. Helmet and oxygen mask/connector data

Data Element Title	Data Element Name/Attributes
1. Date of Annual Fitting	1. <date-annual-fitting>
2. Helmet Data: a. Nomenclature b. NSN c. Size d. Inspection Data: 1) Date Inspected 2) Date Inspection Due 3) PID 4) Remarks e. Repair Data: 1) Date 2) PID 3) Corrective Action 4) Remarks	2. <helmet-data> a. <nomen> b. <nsn> c. <size> d. <helmet-and-o2-mask-insp-data> 1) <date-inspected> 2) <date-inspection-due> 3) <pid> 4) <remarks> e. <helmet-and-o2-mask-repair-data> 1) <date-repaired> 2) <pid> 3) <action> 4) <remarks>
3. Visor Data: a. Type b. Inspection Data: 1) Date Inspected 2) Date Inspection Due 3) PID 4) Remarks c. Repair Data: 1) Date 2) PID 3) Corrective Action 4) Remarks	3. <visor-data> a. <type> b. <helmet-and-o2-mask-insp-data> 1) <date-inspected> 2) <date-inspection-due> 3) <pid> 4) <remarks> c. <helmet-and-o2-mask-repair-data> 1) <date-repaired> 2) <pid> 3) <action> 4) <remarks>
4. Oxygen Data: a. Type b. Inspection Data: 1) Date Inspected 2) Date Inspection Due 3) PID 4) Remarks c. Repair Data: 1) Date 2) PID 3) Corrective Action 4) Remarks	4. <o2mask-data> a. <type> b. <helmet-and-o2-mask-insp-data> 1) <date-inspected> 2) <date-inspection-due> 3) <pid> 4) <remarks> c. <helmet-and-o2-mask-repair-data> 1) <date-repaired> 2) <pid> 3) <action> 4) <remarks>

5.3.2.2.3 Survival radio/emergency locator transmitter (ELT) data. Table 42 provides data on inspections and maintenance needed and completed for the survival radio/emergency locator transmitter.

TABLE 42. Survival radio/emergency locator transmitter data

Data Element Title	Data Element Name/Attributes
1. Radio Information: a. Type b. Radio Serial Number c. Radio DOM d. Radio NSN	1. <radio-data> a. <type> b. <serialno> c. <date-of-manuf> d. <nsn>
2. ELT Information: a. ELT Serial Number b. ELT DOM c. ELT NSN	2. <elt-data> a. <serialno> b. <date-of-manuf> c. <nsn
3. Technical Manual	3. <reference>
4. Battery Information: a. Type b. Battery Serial Number c. Battery Lot Number d. Battery DOM	4. <battery-data> d. <type> e. <serialno> f. <lotno> g. <date-of-manuf>
5. Inspection Record: a. Due Date b. Type Inspection c. Date Inspected d. PID	5. <insp-record-entry> a. <date-inspection-due> b. <insp-type> c. <date-inspected> d. <pid>

5.3.2.2.4 Survival kit inspection and maintenance data. Table 43 provides data on all inspections and maintenance needed and completed for the survival kit.

TABLE 43. Survival kit inspection and maintenance data

Data Element Title	Data Element Name/Attributes
1. Kit Data: a. Type b. NSN c. Serial Number d. ID Number	1. <kit-data> a. <kit-type> b. <nsn> c. <serialno> d. <kit-no>
2. Location Data: a. Aircraft NSN b. Aircraft Serial Number c. Kit Station	2. <kit-location> a. <acft-nsn> b. <acft-serialno> c. <kit-station>
3. Ammunition Information: a. Type b. Lot Number c. Ammunition Shelf Life	3. <ammo-data> a. <type> b. <lotno> c. <shelf-life>
4. Flare Information: a. Lot Number b. Type c. Date Installed a. Expiration Date	4. <flares-data> a. <lotno> b. <type> c. <date-installed> d. <date-expires>
5. Ration DOM	5. <ration-data>
6. First Aid Kit Due	6. <first-aid-kit-data>
7. Installed Components Record: a. NSN b. Part Number c. CAGE	7. <installed-component-data> a. <nsn> b. <partno> c. <cageno>

Data Element Title	Data Element Name/Attributes
d. Quantity Required e. Quantity Authorized f. Quantity on Hand (O/H)	g. <qty-required> d. <qty-authorized> e. <qty-on-hand>
8. Maintenance and Inspection Data: a. Due Date b. Inspection Date c. Faults d. Corrective Action e. PID	8. <maint-insp-data> a. <date-inspection-due> b. <date-inspected> c. <fault> d. <action> e. <pid>

5.3.2.2.5 Mesh net survival vest data. Table 44 provides data on all inspections and maintenance needed and completed for the Mesh Net Survival Vest.

TABLE 44. Mesh net survival vest data

Data Element Title	Data Element Name/Attributes
1. PID	1. <pid>
2. UIC	2. <uic>
3. Size	3. <size>
4. Installed Components: a. NSN b. Part Number c. CAGE d. Required Number e. Authorized Number f. On Hand	4. <installed-component-data> a. <nsn> b. <partno> c. <cageno> d. <qty-required> e. <qty-authorized> f. <qty-on-hand>
5. Survival Equipment: a. Type b. Serial Number c. DOM d. Lot Number e. Date of Issue (DOI) f. Expiration Date	5. <survival-eqp-data> a. <type> b. <serialno> c. <date-of-manuf> d. <lotno> e. <date-of-issue> f. <date-expires>
6. Inspection Data: a. Type b. Date Due c. Date Completed d. PID	6. <insp-record> a. <type> b. <date-inspection-due> c. <date-inspected> d. <pid>

5.3.2.2.6 Life preserver data. Table 45 provides data on all inspections, and maintenance and inflation tests needed and completed for the life preserver.

TABLE 45. Life preserver data

Data Element Title	Data Element Name/Attributes
1. NSN	1. <nsn>
2. Part Number	2. <partno>
3. CAGE	3. <cageno>
4. Serial Number	4. <serialno>
5. ID Number	5. <identno>
6. DOM	6. <date-of-manuf>
7. Location	7. <location>
8. CO^2 Inflation Test: a. PID	8. <co2-inflation-test> a. <pid>

Data Element Title	Data Element Name/Attributes
b. Date Performed	b. <date-performed>
9. Date Packed	9. <date-packed>
10. Cell Information: a. Serial Number b. Manufacturer c. Left/Right Cell	10. <cell-data> a. <serialno> b. <manuf-name> c. <cell-data cell="left"> <cell-data cell="right">
11. Date Issued	11. <date-of-issue>
12. Location	12. <location>
13. Inspection Data: a. Due Date b. Date Inspected c. PID	13. <insp-data> a. <date-inspection-due> b. <date-inspected> a. <pid>
14. Maintenance Work: a. Name of Activity b. Location of Activity c. Corrective Action d. Date Completed e. PID	14. <maint-work-data> a. <unit-name> b. <location> c. <action> d. <date-completed> e. <pid>

5.3.2.2.7 Oxygen console service data. Table 46 provides data on the oxygen system, specifically an inventory of installed components, inspections, and the servicing, repair or modification of the unit.

TABLE 46. Oxygen console service data

Data Element Title	Data Element Name/Attributes
1. Model Number	1. <modelno>
2. Name	2. <name>
3. Type	3. <type>
4. NSN	4. <nsn>
5. Part Number	5. <partno>
6. CAGE	6. <cageno>
7. Serial Number	7. <serialno>
8. Oxygen Service: a. Status b. System PSI c. Date Service Performed d. PID	8. <o2-service-data> a. <status-symbol> b. <system-psi> c. <date-performed> d. <pid>
9. Hydrostatic Test Due	9. <date-test-due>
10. Accessories Information: a. Nomenclature b. Serial Number c. Number Required d. Number Authorized e. Number on Hand (O/H) f. Inspection Cycle g. Time Change Due	10. <accessories-data> a. <nomen> b. <serialno> c. <qty-required> d. <qty-authorized> e. <qty-on-hand> f. <insp-type> g. <date-replacement-due>
11. Inspection Data: a. Type Inspection b. Date of Inspection c. Date Due d. PID	11. <insp-data> a. <insp-type> b. <date-inspection-due> c. <date-inspected> b. <pid>
12. Repair/Modification Data:	12. <repair-mod-data>

Data Element Title	Data Element Name/Attributes
a. Discrepancy	a. <fault> <modno>
b. Date Corrected	b. <date-repaired>
c. Publication Reference	c. <reference>
d. PID	d. <pid>

5.3.2.2.8 Anti-exposure coveralls data. Table 47 provides data on all inspections and maintenance needed and completed for the anti-exposure coveralls.

TABLE 47. Anti-exposure coveralls data

Data Element Title	Data Element Name/Attributes
1. NSN	1. <nsn>
2. Part Number	2. <partno>
3. CAGE	3. <cageno>
4. Serial Number	4. <serialno>
5. ID Number	5. <identno>
6. Location: a. PID b. Aircraft NSN c. Aircraft Serial Number	6. <location-assigned-data> a. <pid> b. <acft-nsn> c. <acft-serialno>
7. Leak Test Due Date	7. <date-test-due>
8. Size	8. <size>
9. Inspection Data: a. Date Due b. Date Inspected c. PID	9. <insp-data> c. <date-inspection-due> d. <date-inspected> e. <pid>
10. Maintenance Data: a. Fault b. Corrective Action c. UIC d. Date Completed e. PID	10. <coverall-maint-data> c. <fault> d. <action> e. <uic> f. <date-completed> g. <pid>

5.3.2.2.9 Night vision goggles (NVG) data. Table 48 provides data on all faults found during assembly, pre-operational checks, preventive maintenance checks and services, special inspections, and operations of the aviator NVG system.

TABLE 48. NVG inspection and maintenance data

Data Element Title	Data Element Name/Attributes
1. NSN	1. <nsn>
2. Serial Number	2. <serialno>
3. UIC	3. <uic>
4. Inspections: a. Due b. Type c. Date Inspected	4. <insp-data> a. <date-inspection-due> b. <insp-type> c. <date-inspected>
5. NVG Fault Information: a. Status b. Date c. Time d. PID e. Discrepancy	5. <nvg-fault-data> a. <status-symbol> b. <date-fault> c. <time> d. <pid> e. <discrepancy>

Data Element Title	Data Element Name/Attributes
f. Publication Reference g. Supply Requisition Number h. Remarks	f. <reference> g. <reqno> h. <remarks>
6. NVG Correcting Information: a. Date b. Time c. Action d. PID e. Hours	6. <nvg-correct-data> a. <date-fault-corrected> b. <time> c. <maint-action> d. <pid> e. <hours>
7. NVG Operational Hours: a. Current b. Today c. Total	7. <nvg-op-hours> a. <nvg-op-hours hours="current"> b. <nvg-op-hours hours="today"> c. <nvg-op-hours hours ="total">

5.3.3 Historical data requirements. Historical data about the weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be provided. Historical data shall be developed and recorded using the relational tables described in the following paragraphs.

5.3.3.1 Vibration data. Table 49 provides information on vibration tests performed on Army helicopter component drive shafts at the lateral, longitudinal and vertical axis. It includes significant historical data and actions taken to reduce vibration.

TABLE 49. Vibration data

Data Element Title	Data Element Name/Attributes
1. Date	1. <date-performed>
2. Aircraft Hours	2. <acft-hours>
3. Shaft Vibration Data: a. NSN b. Shaft c. Lateral d. Longitudinal e. Vertical	3. <shaft-data> a. <nsn> b. <shaft> c. <shaft-readings lateral-reading="xx"> d. <shaft-readings longitudinal-reading="xx"> e. <shaft-readings vertical-reading="xx">
4. Reason for Vibration Check	4. <reason>
5. Remarks	5. <remarks>

5.3.3.2 Component historical data. Table 50 provides information on historical data and events for selected TC, RC, and CC components/modules and parts that are removed and replaced at specific aircraft operating hours.

TABLE 50. Component data

Data Element Title	Data Element Name/Attributes
1. WUC	1. <wuc>
2. Component Information: a. Serial Number b. Software Version c. Pitch Housing Weight d. Location e. Number of Previous Overhauls f. NHA Installed Hours	2. <comp -hist-data> a. <serialno> b. <sw-version> c. <weight> d. <location> e. <no-previous-overhauls> f. <op-hours measured="since-installation"

Data Element Title	Data Element Name/Attributes
	source="nha">
g. NHA Removal Hours	g. <op-hours measured="at-removal" source="nha">
h. Time Since Overhaul	h. <op-hours measured="since-overhaul" source="component">
i. Component Installed Hours	i. <op-hours measured="since-installation" source="component">
j. Component Removal Hours	j. <op-hours measured="at-removal" source="component">
k. Overhaul or Replacement Lifetime	k. <shelf-life>
l. Replacement Due – Aircraft Hours	l. <acft-hours>

5.3.3.3 Component/module recorder data. Table 51 provides 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. This information includes data on low cycle fatigue (LCF), time-temperature index (TTI), and engine, component or subcomponent operating hours.

TABLE 51. Component/module recorder data

Data Element Title	Data Element Name/Attributes
1. Historical Counts on Component/Module a. Previous Counts of Component/Module b. Reading at Installation of Module/Recorder c. Reading at Removal of Module/Recorder d. Other Counts e. Total Component Counts: 1) LCF 1 2) LCF 2 3) TTI 4) Operating Hours	1. <hist-counts> a. <hist-counts previous="xx"> b. <hist-counts reading-at-installation="xx"> c. <hist-counts reading-at-removal="xx"> d. <hist-counts other-counts="xx"> e. <current-cumulative-reading> 1) <current-cumul-reading type="lcf1" cumulative="yes"> 2) <current-cumul-reading type="lcf2" cumulative="yes"> 3) <current-cumul-reading type="tti" cumulative="yes"> 4) <current-cumul-reading type="op-hours" cumulative="yes">
2. History Recorder Serial Number	2. <history-recorder-serialno>
3. Replacement Component/Module Data a. NSN b. Part Number c. CAGE d. Serial Number e. Overhaul or Replacement Life 1) Maximum Allowable Operating Time (MAOT) 2) Condition Change (CC) 3) Time Between Overhaul (TBO) f. Counts at Last Depot Replacement g. Total Replacement Component/Module Counts: 1) Cumulative LCF 1 Counts 2) Cumulative LCF 2 Counts 3) Cumulative T/TI Counts	3. <replace-module-data> a. <nsn> b. <partno> c. <cageno> d. <serialno> e. <overhaul-replace-life-data> 1) <maot> 2) <condition-change> 3) <op-hours measured="since-overhaul"> f. <counts-last-depot-replace> g. <current-cumulative-reading> 1) <current-cumul-reading type="lcf1" cumulative="yes"> 2) <current-cumul-reading type="lcf2" cumulative="yes"> 3) <current-cumul-reading type="tti" cumulative="yes">

Data Element Title	Data Element Name/Attributes
4) Cumulative Operating Hours:	4) <current-cumul-reading type="op-hours" cumulative="yes">
h. Engine	h. <op-hours cumulative="yes" source="engine">
i. Module/Component	i. <op-hours cumulative="yes" source="component">
j. Replacement Due (History Recorder Hours)	j. <acft-hours>

5.3.3.4 Aircraft inventory record. Table 52 provides data on items assigned to an aircraft that are subject to a periodic inventory.

TABLE 52. Aircraft inventory data

Data Element Title	Data Element Name/Attributes
1. Aircraft Compartment Location	1. <location>
2. Equipment Checklist: a. NSN b. Part Number c. CAGE d. Item Data: 1) Item Number 2) Quantity Required 3) Quantity Found 4) Remarks	2. <eqp-checklist> a. <nsn> b. <partno> c. <cageno> d. <item-data> 1) <itemno> 2) <qty-required> 3) <qty-on-hand> 4) <remarks>
3. Verification Data: a. PID b. Date c. Check Number	3. <verification-data> a. <pid> b. <date-performed> c. <check-no>

5.3.3.5 Aircraft engine data. Aircraft engine data provides historical information on specified engine turbines, including engine analysis and component operating times.

5.3.3.5.1 Engine turbine wheel data. Table 53 provides information on aircraft engine turbine wheels including maintenance, replacement and overhaul activities.

TABLE 53. Engine turbine wheel data

Data Element Title	Data Element Name/Attributes
1. Aircraft NSN	1. <acft-nsn>
2. Aircraft Serial Number	2. <acft-serialno>
3. Stage	3. <stage-no>
4. Acceptance Date	4. <date-of-acceptance>
5. Diametrical Measurements: a. Date b. Wheel Time c. Wheel with Blades: 1) Before Grind 2) After Grind d. Abnormal Temperature and/or Overspeed Data: 1) Date 2) Engine Time 3) Wheel Time	5. <diam-meas-data> a. <date> b. <wheel-time> c. <wheel-with-blades> 1) <wheel-with-blades meas-before-grind="xx"> 2) <wheel-with-blades meas-after-grind="xx"> d. <abnormal-temp-overspeed-data> 1) <date> 2) <op-hours source="engine"> 3) <wheel-time>

Data Element Title	Data Element Name/Attributes
4) Temperature (^{0}C) 5) Speed (RPM) 6) Time Over Limit 7) Remarks e. Installation Information: 1) Activity 2) Engine Model Number 3) Engine Serial Number 4) Installed: a) Date b) Engine Time 5) Removed: a) Date b) Engine Time 6) Wheel Time (W/T) 7) Reason for Removal	4) <temp> 5) <rpm> 6) <time-over-limit> 7) <remarks> e. <install-data> 1) <unit-activity> 2) <modelno> 3) <serialno> 4) <engine-installed> a) <date-installed> b) <op-hours source="engine"> 5) <engine-removed> a) <date-removed> b) <op-hours source="engine"> 6) <wheel-time> 7) <reason>
6. Turbine Wheel Blade Data: a. Date b. Activity c. Wheel Time d. Blade Data: 1) Part Number 2) Replaced e. Blade Position (B POS) f. Remarks	6. <wheel-blade-data> a. <date-performed> b. <unit-activity> c. <wheel-time> d. <blade-data> 1) <blade-data removed-partno="xx" type="xx"> 2) <blade-data replaced-partno="xx" type="xx"> e. <blade-position> f. <remarks>

5.3.3.5.2 Turbine engine analysis check (TEAC) data. Table 54 provides historical data for aircraft turbine engines that include a progressive record of aircraft TEAC for selected turbine engines.

TABLE 54. Turbine analysis check data

Data Element Title	Data Element Name/Attributes
1. Base Torque	1. <base-torque>
2. Engine Time Since Overhaul (TSO)	2. <op-hours measured="since-overhaul" source="engine">
3. Readings: a. Outside Air Temperature (OAT ^{0}C) b. Free Air Temperature (FAT ^{0}C) c. Pressure Altimeter d. N1% Actual/Required e. NG% Actual/Required f. Torque Actual/Required g. Turbine Gas Temperature (TGT)	3. <eng-readings> a. <oa-temp> b. <fa-temp> c. <press-alt> d. <n1-percent actual="xx"> <n1-percent req="xx"> e. <ng-percent actual="xx"> <ng-percent req="xx"> f. <torque> 1) <torque actual="xx"> 2) <torque req="xx"> g. <tg-temp> 1) < tg-temp actual="xx"> 2) < tg-temp req="xx">
4. Engine TOT Actual/Required	4. <eng-temp> a. <eng-temp actual="xx"> b. <eng-temp req="xx">
5. Remarks	5. <remarks>

5.3.3.5.3 Component operating hours. Table 55 provides monthly data on aircraft, aircraft hours, engine serial numbers, history recorder serial numbers and current history recorder readings.

TABLE 55. Engine history recorder operating hours data

Data Element Title	Data Element Name/Attributes
1. Period Ending Date	1. <date>
2. Aircraft NSN	2. <acft-nsn>
3. Aircraft Serial Number	3. <acft-serialno>
4. Engine Data: a. NSN b. Serial Number c. Position (POS)	4. <engine-id> a. <nsn> b. <serialno> c. <engine-id position="1"> <engine-id position="2">
5. Low Cycle Fatigue (LCF) Readings: a. LCF 1 b. LCF 2 c. Time/Temperature d. Operating Hours	5. <current-cumulative-reading> a. <current-cumul-reading type="lcf1" cumulative="yes"> b. <current-cumul-reading type="lcf2" cumulative="yes"> c. <current-cumul-reading type="tti" cumulative="yes"> d. <current-cumul-reading type="op-hours" cumulative="yes">
6. History Recorder Serial Number	6. <history-recorder-serialno>

5.3.3.5.4 Meter tracked component data. Table 56 provides a record of historical data and events for the AN/ALQ-144A Elapsed Time Indicator (ETI) and for selected TC, RC, and CC components/modules and parts that are removed and replaced at specific hours of operation as indicated on the ETI.

TABLE 56. Meter tracked component data

Data Element Title	Data Element Name/Attributes
1. Aircraft NSN	1. <acft-nsn>
2. Aircraft Serial Number	2. <acft-serialno>
3. Hours Installed in Aircraft	3. <op-hours measured="since-installation" source="component">
4. Meter Reading at Installation	4. <op-hours measured="at-installation" source="component">
5. Subcomponent/Module: a. WUC b. Part Number c. CAGE d. NSN e. Installed Hours f. Removed Hours g. Component Installed Hours h. Component Removed Hours i. Replace Life j. Replacement Due Meter Reading	5. <subcomponent-data> a. <wuc> b. <partno> c. <cageno> d. <nsn> e. <op-hours measured="since-installation"> f. < op-hours measured="at-removal"> g. <op-hours measured="at-installation" source="component"> h. <op-hours measured="at-removal source="component"> i. <shelf-life> j. <replacement-due>
6. Significant Data	6. <remarks>

5.4 Non-aviation data requirements. Non-aviation data requirements provide necessary information to manage operations and maintenance, to control the use, and to report warranty actions and deficiencies of Army equipment that include self-powered vehicles, towed vehicles, stationary powered equipment, watercraft and rail equipment. Cross-functional data requirements pertinent to equipment identification, personnel, inspections, fault, and costing data are addressed in Section 5.2.

5.4.1 Operational data requirements. Operational data about the weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be provided. Operational data shall be developed and recorded using the relational tables described in the following paragraphs.

5.4.1.1 Equipment utilization data. Table 57 provides equipment utilization data on motor equipment operations. It documents the control and use of special purpose and material handling equipment, combat, tactical and nontactical vehicles. It also provides operating times on equipment that require services based on hours only; such equipment includes generators, air compressors, centrifugal pumps, etc.

TABLE 57. Equipment utilization data

Data Element Title	Data Element Name/Attributes
1. Fuel (Gallons)	1. <qty-fuel>
2. Oil (Quarts)	2. <qty-oil>
3. Dispatch Information: a. In b. Out c. Time d. Hours e. Miles/Kilometers f. Total Hours g. Total Miles/Kilometers	3. <eqp-dispatch-info> a. <eqp-dispatch-info action="in"> b. <eqp-dispatch-info action="out"> c. <date-time> d. <op-hours> e. <miles-kilometers> f. <op-hours cumulative="yes"> g. <miles-kilometers cumulative="yes">
4. Report to PID	4. <pid>
5. Destination: a. Beginning Point b. Ending Point c. Off-Post Travel Stop d. Date	5. <eqp-destination-info> a. <from-info> <location> <time> b. <to-info> <location> <time> c. <interim-info> <location> <arrival-time> <departure-time> d. <date>
6. Released by: a. PID b. Date	6. <released-by-data> a. <pid> b. <date>
7. Remarks	7. <remarks>

5.4.2 Maintenance data requirements. Maintenance data about the weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be provided. Maintenance data shall be developed and recorded using the relational tables described in the following paragraphs.

5.4.2.1 Equipment deadlined. Table 58, used in conjunction with Tables 1 and 2, provides data on equipment that is not mission capable due to parts or components being inoperative.

TABLE 58. Equipment deadlined data

Data Element Title	Data Element Name/Attributes
1. Deadlined Item: a. NSN b. Serial Number	1. <eqp-deadlined-info> a. <nsn> b. <serialno>
2. Part Source Code	2. <part-source-code> <part-source-code repair-part-source="authorized-stockage-list"> <part-source-code repair-part-source="bench-stock"> <part-source-code repair-part-source="cannibalization"> <part-source-code repair-part-source="reparable-exchange"> <part-source-code repair-part-source="fabrication"> <part-source-code repair-part-source="self-service-supply-center"> <part-source-code repair-part-source="maintenance-program-req"> <part-source-code repair-part-source="exception-data-req"> <part-source-code repair-part-source="quick-service-supply"> <part-source-code repair-part-source="demand-against-stock-shop-list">
3. Weapon System Deadlined Code	3. <ws-deadlined-code> <ws-deadlined-code code="deadlined-system"> <ws-deadlined-code code="not-system-applicable"> <ws-deadlined-code code="impairs-system">
4. Work Request Status Code	4. <work-request-status-code>
5. Manhours Remaining	5. <manhours-remaining>
6. Date Deadlined	6. <date-time>
7. Equipment Readiness Code (ERC)	7. <eqp-readiness-code>
8. Days Deadlined	8. <days-deadlined>
9. Estimated Shipping Date	9. <date-for-shipment>
10. Maintenance Level	10. <maintlvl>
11. Malfunction Description	11. <malfunc>

5.4.3 Historical data requirements. Historical data about the weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts, shall be provided. Historical data shall be developed and recorded using the relational tables described in the following paragraphs

5.4.3.1 Armament information. Armament information provides an historical account of a specified armament system, both from operational and maintenance perspectives. Such considerations as accuracy, reliability and safety are inclusive for complete data inputs.

5.4.3.1.1 Armament system data. Table 59 provides information on the service life of weapons with cannons or mortar tubes; rounds fired on each armament subsystem and component; and when components are replaced, overhauled or rebuilt on a rounds fired basis.

TABLE 59. Armament system data

Data Element Title	Data Element Name/Attributes
1. Cannon Tube NSN	1. <nsn>
2. Assembly Serial Number	2. <assembly-serialno>
3. Cannon Information: a. Type b. NSN c. Serial Number	3. <cannon-info> a. <type> b. <nsn> c. <serialno>
4. Special Life Data	4. <special-life-data>
5. Retubings: a. Number of Times Retubed b. Total EFC Rounds c. Total Cumulative EFC Rounds at Last Retubing	5. <retubing-data> a. <retubing-data times-retubed="xx"> b. <retubing-data total-efc-rounds="xx"> c. <retubing-data cumulative-efc-rounds="xx">
6. Number of Times Rebushed	6. <times-rebushed>
7. Number of Times Revented	7. <times-revented>
8. Rounds Fired Data: a. Date b. Projectile Type c. Zone or Charge d. Rounds Fired e. EFC Rounds Fired f. Cumulative Rounds Fired g. Cumulative EFC Rounds h. Remaining Life i. Rounds Remaining for the Breech j. Rounds Remaining for the Firing Pin k. Additional Operational Maintenance Data	8. <arm-rounds-fired-data> a. <date> b. <projectile-type> c. <charge> d. <zone> e. <efc-rounds-fired> f. <rounds-fired cumulative="yes"> g. <efc-rounds-fired cumulative="yes"> h. <remaining-life> i. <remaining-rounds rounds="breech"> j. <remaining-rounds rounds="firing-pin"> k. <remarks>

5.4.3.2 Equipment control data. Table 60 provides equipment acceptance and inventory data. In conjunction with Tables 1 and 2, it covers information on ownership, location, usage, transfers, gains, losses, and overhaul.

TABLE 60. Equipment control data

Data Element Title	Data Element Name/Attributes
1. Date	1. <date-time>
2. Vehicle Use Code	2. <vehicle-use-code>
3. Year of Manufacture	3. <date-of-manuf>
4. Vehicle Type: a. Tactical Vehicles b. Non-Tactical Vehicles c. Overhauled	4. <vehicle-type> a. <vehicle-type type="tactical"> b. <vehicle-type type="non-tactical"> c. <vehicle-type type="overhauled">
5. Type Report	5. <type>
6. Report Code	6. <report-code>
7. Usage Hours	7. <op-hours source="engine">
8. Usage Miles/Kilometers	8. <miles-kilometers>
9. Shipped To	9. <shipped-to-data>
10. Shipped From	10. <shipper-data>
11. Additional Equipment Control Data	11. <remarks>

5.4.3.3 Equipment maintenance and calibration data. Table 61 provides information on the maintenance and calibration history of a specified item of equipment. This information is also used to track and control components under warranty.

TABLE 61. Equipment maintenance and calibration data

Data Element Title	Data Element Name/Attributes
1. Location	1. <location>
2. Frequency of Maintenance Inspection	2. <frequency-data>
3. Expected Useful Life	3. <expected-life>
4. Expected Date of Retirement	4. <date-expected-retirement>
5. Technical References	5. <reference>
6. Date Put in Service	6. <date-in-service>
7. Unit Cost	7. <unit-cost>
8. Maintenance Inspection Data: a. Date b. PID c. Job Order Number d. Additional Maintenance Inspection Data	8. <eqp-maint-insp-data> a. <date> b. <pid> c. <jobno> d. <additional-data>
9. Equipment Calibration Data: a. Calibration Activity: 1) UIC 2) PID b. Date c. Cycles d. Interval e. TM f. Remarks	9. <eqp-calibration-data> a. <unit-activity> 1) <uic> 2) <pid> b. <date> c. <cycles> d. <interval> e. <reference> f. <remarks>
10. Repair and Cost Data: a. Repair Activity UIC b. Date c. PID d. Publication Reference e. Recall Number f. Nature of Repair g. Manhours h. Parts Cost i. Labor Cost j. Total Cost	10. <eqp-repair-cost-data> a. <unit-activity> b. <date> c. <pid> d. <reference> e. <recall-no> f. <nature-of-repair> g. <manhours-expend> h. <part-cost> i. <manhours-cost> j. <total-cost>
11. Modification Data	11. <modification-data>

5.4.3.4 Watercraft and amphibious lighters. This section provides information on coastal, harbor, and inland waterway craft; landing craft; amphibians; lighters; lighter aircraft vessels; barges; and oceangoing vessels (self-propelled or towed, tugged or pushed).

5.4.3.4.1 Dry-docking, painting and condition of vessel bottom data. Table 62 provides information on cyclical maintenance and the condition of a watercraft's bottom, zinc protectors, rudders, propellers, struts, shafting and shaft bearing, sea valves, and paint system.

TABLE 62. Dry-docking, painting and condition of vessel bottom data

Data Element Title	Data Element Name/Attributes
1. Dry-docking and Painting Data: a. UIC of Present DD or Haul Out b. UIC of Last DD or Haul Out c. Time Elapsed Since Last Printing d. CAGE e. Date of Last DD f. Date of Present DD g. Date Refloated h. Condition of Underwater Hull Plates	1. <dry-dock-painting-data> a. <present-uic> b. <last-uic> c. <time> d. <cageno> e. <date-of-last-DD> f. <date-of-present-DD> g. <date-refloated> h. <condition>
2. Condition of Underwater Fittings: a. Size of Shaft b. Date Tail Shaft Last Drawn c. Rudder(s) d. Rudders Pintle Bearings and Gudgeons: 1) Reviewed at this Docking e. Propeller Information: 1) Propeller Size 2) Propeller Pitch 3) Propeller Struts f. Outboard Stern Bearing(s): 1) At Docking 2) Prior to Floating 3) How Much Wear (Thousandths of an Inch) 4) Date Last Cutlass Rubber Renewed g. Sea Strainers: 1) Renewed at this Docking h. Sea Chests and Valves i. Hull Zincs: 1) Size 2) Number 3) Type 4) Renewed at this Docking j. Zinc Bars at Sea Chest/Keel Coolers: 1) Size 2) Number 3) Type 4) Renewed at this Docking k. Bilge Keels l. Stern Frame/Skeg/Kort Nozzle m. Corrosion Control System Condition: 1) Anode 2) Reference Electrode 3) Prop Shaft Grounding Assembly	2. <underwater-fittings-data> a. <size> b. <date-last-drawn> c. <rudders> d. <rudders-pintle> 1) <rudders-pintle renewed-at-docking="xx"> e. <propeller-info> 1) <propeller-info size="xx"> 2) <propeller-info pitch="xx"> 3) <propeller-info struts="xx"> f. <bearings> 1) <bearings at-docking="xx"> 2) <bearings prior-to-floating="xx"> 3) <bearings how-much-wear="xx"> 4) <bearings date-rubber-removed="xx"> g. <sea-strainers> 1) <sea-strainers renewed-at-docking="xx"> h. <sea-chests-and-valves> i. <hull-zincs> 1) <hull-zincs size="xx"> 2) <hull-zincs number="xx"> 3) <hull-zincs type="xx"> 4) <hull-zincs renewed-at-docking="xx"> j. <zinc-bars> 1) <zinc-bars size="xx"> 2) <zinc-bars number="xx"> 3) <zinc-bars type="xx"> 4) <zinc-bars renewed-at-docking="xx"> k. <bilge-keels> l. <stern-nozzle> m. <corrosion-control-condition> 1) <corrosion-control-condition anode="xx"> 2) <corrosion-control-condition electrode="xx"> 3) <corrosion-control-condition grounding-assembly="xx">
3. Bottom Fouling: a. Plant Fouling b. Animal Fouling c. Condition: 1) Heavy 2) Moderate	3. <bottom-fouling-data> a. <bottom-fouling-data type="plant-fouling"> b. <bottom-fouling-data type="animal-fouling"> c. <bottom-fouling-data condition> 1) <bottom-fouling-data condition="heavy"> 2) <bottom-fouling-data

Data Element Title	Data Element Name/Attributes
3) Slight	condition="moderate"> 3) <bottom-fouling-data condition="slight">
4. Paint Data: a. Weather Condition: 1) Temperature 2) Humidity 3) Sandblast to White Metal b. Fully Repainted: 1) Pretreatment (If Required): a) Number of Coats b) Type Used Mil Spec c) Formula d) Gallons Used e) Cost 2) Anticorrosive/Primer: a) Number of Coats b) Type Used Mil Spec c) Formula d) Gallons Used e) Cost 3) Antifouling: a) % Covered b) Number of Coats c) Type Used Mil Spec d) Formula e) Gallons Used f) Cost 4) Boot Topping: a) Number of Coats b) Type Used Mil Spec c) Formula d) Gallons Used e) Cost c. Spot Paint Only: 1) Anticorrosive: a) % of Bottom Covered b) Number of Coats c) Type Used Mil Spec d) Formula e) Gallon Used f) Cost 2) Antifouling: a) % of Bottom Covered b) Type Used Mil Spec c) Formula d) Gallon Used e) Cost 3) Condition of Bottom Paint 4) % Wire Brushed or Scraped d. Time Factors: 1) Time Between Each Coat (Hours): a) 1-2 Coats b) 2-3 Coats	4. <paint-data> a. <weather-condition> 1) <weather-condition temperature="xx" temperature-scale="xx"> 2) <weather-condition humidity="xx"> 3) <weather-condition sandblast-to-white-metal="xx"> b. <fully-repainted> 1) <pretreatment> a) <no-of-coats> b) <type-used> c) <formula> d) <qty> e) <paint-cost> 2) <anticorrosive-primer> a) <no-of-coats> b) <type-used> c) <formula> d) <qty> e) <paint-cost> 3) <antifouling> a) <percent-covered> b) <no-of-coats> c) <type-used> d) <formula> e) <qty> f) <paint-cost> 4) <boot-topping> a) <no-of-coats> b) <type-used> c) <formula> d) <qty> e) <paint-cost> c. <spot-paint-only> 1) <anticorrosive> a) <percent-covered> b) <no-of-coats> c) <type-used> d) <formula> e) <qty> f) <paint-cost> 2) <antifouling> a) <percent-covered> b) <type-used> c) <formula> d) <qty> e) <paint-cost> 3) <condition> 4) <percent-scrapped> d. <time-factors> 1) <paint-time-data> a) <paint-time-data coats1-2="xx"> b) <paint-time-data coats2-3="xx">

Data Element Title	Data Element Name/Attributes
c) 3-4 Coats d) 5-6 Coats e) 6-7 Coats f) 7-8 Coats 2) Length of Time to Complete Painting 3) Time Between Last Coat and Refloating: a) If Not Refloated Right Away: (1) Give Method of Wetting (2) Time From Wetting to Refloating	c) <paint-time-data coats3-4="xx"> d) <paint-time-data coats5-6="xx"> e) <paint-time-data coats6-7="xx"> f) <paint-time-data coats7-8="xx"> 2) <time-to-complete> 3) <time-between-refloating> a) <not-immediate-float> (1) <method-of-wetting> (2) <time-between-refloating>
5. Additional Procedures Data	5. <additional-data>

5.4.3.5 Rail equipment data. This section provides information on Army rail equipment that includes diesel electric locomotives, locomotive cranes, freight, passenger and maintenance equipment, and cars under the control of the Army.

5.4.3.5.1 Daily inspection data. Table 63 provides operator's and maintainer's status information on diesel electric locomotives and locomotive crane operation, services, and lubrication.

TABLE 63. Daily inspection data

Data Element Title	Data Element Name/Attributes
1. Operating Hours	1. <ops-hours>
2. Installation	2. <unit-activity>
3. Operator's Report: a. Item Number b. Repairs Needed c. Corrected d. Clean Unit e. Readings: 1) Lube Oil Pressure 2) Water Temperature 3) Battery Ammeter 4) Load Meter 5) Main Reservoir Pressure (PSI) 6) Equalizing Reservoir Pressure (PSI)] 7) Brake Pipe Pressure (PSI) 8) Control Air Pressure (PSI)	3. <operators-report> a. <itemno> b. <nature-of-repair> c. <pid> d. <clean-unit> e. <locomotive-readings> 1) <locomotive-readings lube-oil-pressure="xx"> 2) <locomotive-readings water-temperature="xx"> 3) <locomotive-readings battery-ammeter="xx"> 4) <locomotive-readings load-meter="xx"> 5) <locomotive-readings main-reservoir-pressure="xx"> 6) <locomotive-readings equalizing-reservoir-pressure="xx"> 7) <locomotive-readings brake-pipe-pressure="xx"> 8) <locomotive-readings control-air-pressure="xx">
4. Maintainer's Report: a. Lubricate Complete Locomotive: 1) OK 2) Defective 3) Corrected (Mechanic's PID) b. Check and Replenish Data: 1) Type Check/Replenish: a) OK b) Defective 2) Corrector's PID	4. <maintainers-report> a. <lubricate-data> 1) <lubricate-data check="ok"> 2) <lubricate-data check="defective"> 3) <pid> b. <check-replenish-data> 1) <type> a) <check-replenish-data check="ok"> b) <check-replenish-data check="defective"> 2) <pid>

5.4.3.5.2 Field inspection data. Table 64 provides information on the inspection of railway cars and is used in conjunction with information derived from Section 5.2.3 of this standard.

TABLE 64. Field inspection data

Data Element Title	Data Element Name/Attributes
1. Classification of Installation	1. <classification>
2. Tank Test Date	2. <date-tank-test>
3. Valve Test Date	3. <date-valve-test>
4. Tank Pressure or Valve Pressure	4. <pressure>
5. Loaded/Unloaded Car Weight	5. <car-weight>
6. Air Date	6. <date-last-test>
7. Journal Pads Changed Date: a. Type b. Date Built	7. <journal-pads-changed> a. <type> b. <date>
8. Date Last Inspected	8. <date-of-last-inspect>
9. Item Inspection Data: a. Material Type: b. Condition: 1) Satisfactory 2) Repair 3) Renew c. Remarks:	9. <item-inspection-data> a. <type> b. <inspected-condition> 1) <inspected-condition condition="satisfactory"> 2) <inspected-condition condition="repair"> 3) <inspected-condition condition="renew"> c. <inspected-remarks>

5.4.3.5.3 Locomotive inspection and repair data. Table 65 provides information on the condition of locomotives and locomotive cranes and includes maintenance and repairs performed.

TABLE 65. Locomotive inspection and repair data

Data Element Title	Data Element Name/Attributes
1. Date	1. <date-time>
2. New Locomotive (Yes/No)	2. <item-new>
3. Previous Locomotive Number	3. <previous-locomotive-no>
4. Operated By: a. Installation Assigned b. RR Code	4. <locomotive-operated-by> a. <unit-activity> b. <rr-code>
5. Owned By: a. Component/Agency b. RR Code	5. <locomotive-owned-by> a. <unit-activity> b. <rr-code>
6. Original Year Built	6. <original-year-built>
7. Date of Manufacture	7. <date-of-manuf>
8. Propelled By	8. <propelled-by>
9. Horsepower	9. <horsepower>
10. Type of Service: a. Passenger b. Road c. Yard d. Other	10. <locomotive-service-type> a. <locomotive-service-type type="passenger"> b. <locomotive-service-type type="road"> c. <locomotive-service-type type="yard"> d. <locomotive-service-type type="other">
11. Steam Generator	11. <steam>
12. Maximum Piston Travel: a. Type of Air Brake b. Length	12. <max-piston-travel> a. <air-brake> b. <length>
13. Out of Use Credit	13. <days-out-of-use-credit>
14. Last Periodic Inspection Date: a. Location	14. <date-of-last-inspection> a. <location>

Data Element Title	Data Element Name/Attributes
15. Periodic Inspections: a. Date b. Place c. Items d. Person Conducting (PID) e. Certified By (PID)	15. <periodic-inspection-data> a. <date> b. <location> c. <insp-item> d. <service-by-pid> e. <commander-pid>
16. H&H Test Pressure	16. <test-pressure>
17. Waiver Data	17. <waiver-data>
18. Test Date and Place	18. <date-performed> <location>
19. Previous Test Date and Place	19. <date-performed> <location>
20. Certification of True Copy a. Locomotive Number b. PID of Official in Charge	20. <certification> a. <locomotive-no> b. <pid>

6. NOTES.

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. The operations, historical, maintenance, and ammunition data developed in accordance with the requirements of this standard are used to populate the Global Combat Support System - Army (GCSS-A) database for the efficient management and support of aviation and non-aviation weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts.

6.2 Acquisition requirements. Acquisition documents should specify the following:

a. Title, number, and date of this standard.

b. Issue of the DODISS to be cited in the solicitation, and if required, the specific issue of referenced documents.

c. Identification of the applicable Document Type Definition (DTD) to be used.

d. Content of presentation, unless otherwise specified (see 5.1.1).

6.3 Subject term (key word) listing.

Ammunition data
Document type definition (DTD)
Fault correcting information
Historical data
Maintenance data
Operational data
Parts requisitioning data
Standard Generalized Markup Language (SGML)
Uncorrected fault data

6.4 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

APPENDIX A
DOCUMENT TYPE DEFINITION

A.1 **SCOPE.**

A.1.1 Scope. This appendix provides information on obtaining the Document Type Definition (DTD) and associated tag and attribute descriptions used for preparation and reporting of operations, historical, maintenance, and ammunition data. The data developed using this DTD will be provided to the Global Combat Support System - Army (GCSS-A) to facilitate efficient management and support of aviation and non-aviation weapons systems and their related systems, equipment, components/modules, including flight and mission safety parts.

A.2 **APPLICABLE DOCUMENTS**.

This section is not applicable to this appendix.

A.3 **DEFINITIONS**.

The definitions in section 3 of this standard apply to this appendix.

A.4 **GENERAL REQUIREMENTS**.

A.4.1 General. The DTD referenced in this appendix interprets the technical content and structure for the functional requirements contained in this standard and is mandatory for use.

A.4.2 Obtaining the DTD. The DTD and associated tag and attribute descriptions, which are XML constructs, may be obtained from the Army SGML Registry and Library (ASRL). The ASRL assets may be obtained as follows:

a. World Wide Web (WWW): ASRL homepage Uniform Resource Locator (URL) http://www.asrl.com/

b. U.S. Mail: Requested files will be mailed on 3.5" DOS formatted diskettes or on 1/4 " UNIX tar formatted tape. Requests may be submitted as follows:

Written request:
Director, USAPA, ATTN: JDHQSV-PAP-E, 2461 Eisenhower Avenue, Alexandria, VA 22331
Telephone request:
Commercial: (703) 428-0508 or 0504
DSN: 328-0508 or 0504

A.5 **DETAILED REQUIREMENTS**.

This section is not applicable to this appendix.

A.6 **NOTES.**

This section is not applicable to this appendix.

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INDEX

INDEX

INDEX

CONCLUDING MATERIAL

CUSTODIAN:

Army - TM

REVIEW ACTIVIES:

Army - AC1, AR, AT, AV, CR, EA, MI, PT

PREPARING ACTIVITY:

Army - TM

PROJECT NUMBER:

TMSS A382

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1,2,3, and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4,5,6, and 7.
3. The preparing activity must provide a reply within 30 days from receipt of this form.

NOTE: This form may not be used to request copies of documents, nor to request waivers, or clarification of requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractural requirements.

I RECOMMEND A CHANGE	1.DOCUMENT NUMBER MIL-STD-3008A(TM)	2.DOCUMENT DATE *(YYMMDD)* 020909

3.DOCUMENT TITLE
Interactive Electronic Technical Manual (IETM) Technical Data Requirements to Support the Global Combat Support System - Army (GCSS-A)

4.NATURE OF CHANGE *(Identify paragraph number and include proposed rewrite, if possible. Attach extra sheets as needed.)*

5.REASON FOR RECOMMENDATION

6.SUBMITTER

a.NAME *(Last, First, Middle Initial)*	b.ORGANIZATION	
c.ADDRESS *(Include Zip Code)*	d.TELEPHONE (Include Area Code) (1)Commercial (2)AUTOVON(If applicable)	7.DATE SUBMITTED *(YYMMDD)*

8.PREPARING ACTIVITY

a.NAME USAMC Logistics Support Activity	b.TELEPHONE *(Include Area Code)* (1)Commercial (2)AUTOVON (256) 955-0852 645-0852
c.ADDRESS *(Include Zip Code)* ATTN: AMXLS-AP Redstone Arsenal, AL 35898-7466	IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT: Defense Standardization Program Office 8725 John J. Kingman Road, Suite 2533 Fort Belvoir, Virginia 22060-6221 Telephone (703) 767-6888 DSN 427-6888