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Pamphlet 700-24

Logistics

Sample Data Collection

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SUMMARY of CHANGE

DA PAM 700-24
Sample Data Collection

This major revision, dated 30 January 2007--

- o Updates the point of contact information for inquiries concerning the Sample Data Collection Program (para 1-1).
- o Includes changes implemented in the Sample Data Collection Program caused by an expanded need for data collection to cover wartime deployments and new initiatives (chap 2).
- o Updates the description of the Sample Data Collection Program (para 4-1).
- o Includes information on how data collected through the Sample Data Collection Program is used (chap 5).
- o Provides a unit procedures guide to inform selected units of the data collection process and requirements (appendix B).

Logistics

Sample Data Collection

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History. This publication is a major revision.

Summary. This pamphlet provides an overview of the Sample Data Collection Program, established by DODD 4151.18 to efficiently and effectively collect data to support failure analysis, cost, reliability, availability, and maintainability studies, special requirements, and Army Staff programs. Army Materiel Systems Analysis Activity, as the Department of the Army/Army Materiel Command Executive

Agent for Sample Data Collection Program has full responsibility for administering the program as prescribed in AR 750-1.

Applicability. This pamphlet applies to the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve. It applies to all Army commands to include Army service component commands, units, direct reporting units, and special repair facilities.

Proponent and exception authority. The proponent of this pamphlet is the Deputy Chief of Staff, G-4. The proponent has the authority to approve exceptions or waivers to this pamphlet that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this pamphlet by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the

requesting activity and forwarded through their higher headquarters to the policy proponent. Refer to AR 25-30 for specific guidance.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Director, U.S. Army Materiel Systems Analysis Activity; 392 Hopkins Rd., ATTN: AMSRD-AMS-LR, Aberdeen Proving Ground, MD 21005-5071.

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

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*This pamphlet supersedes DA Pam 700-24, dated 1 April 1988.

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Glossary

Chapter 1 Introduction

1-1. Purpose

This Department of the Army (DA) pamphlet serves primarily as a reference for the field units, but also with the purpose of providing all personnel, offices and activities associated with equipment readiness, an understanding of the Army's Sample Data Collection (SDC) Program. It has been written to provide basic or general information about the SDC Program. Detailed information concerning the SDC Program may be obtained from the Army Materiel Systems Analysis Activity (AMSAA). AMSAA is the DA executive agent for the SDC Program. Any requests for specific data collection, data collected, queries, or analysis should be directed to the U.S. Army Materiel Systems Analysis Activity, 392 Hopkins Rd., ATTN: AMSRD-AMS-LR, Aberdeen Proving Ground, MD 21005-5071.

1-2. References

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

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this pamphlet are explained in the glossary.

1-4. General

Analysis of SDC information provides an assessment of equipment supportability and performance to support initiatives relating to manpower and personnel integration (MANPRINT), safety, design improvements, production processes, modification work orders (MWOs), supply, maintenance, manpower requirements criteria (MARC), engineering evaluation, and operating cost reduction. The SDC Program establishes an audit trail to conduct quality assurance per AR 70-1.

Chapter 2 History and Background

2-1. Inception

The SDC Program has a storied history with significant importance to its development. The DA authorized the SDC Program in the early 1970s to preclude the cumbersome requirement to report all maintenance data to the national maintenance point. The statisticians realized that a small number of units could be selected to provide data that would represent the total fleet with a high degree of confidence. The sampled data could be stored, managed, and analyzed with great accuracy and at a lower cost than collecting on 100 percent of the maintenance actions. The data was initially used to support studies, such as, weapon systems performance, logistics supportability, reliability, availability, maintainability, aging degradation, cost, and training. The analysis has expanded to support many Army staff (ARSTAF) requirements and initiatives.

2-2. Prescribing elements

The SDC Program is established by Department of Defense directive (DODD) 4151.18 and identified in AR 750-1 to—

- a. Improve weapons systems performance.
- b. Improve logistics supportability.
- c. Improve maintainability.
- d. Support ARSTAF programs.

2-3. Expansion

The program was expanded in 1982 to incorporate data collection during field exercises to capture data on all major items during high usage. The Field Exercise Data Collection (FEDC) Program was managed by AMSAA, where much of the data analysis was performed. In 1995, AMSAA was designated as the DA executive agent for the SDC/FEDC Programs. In 1998, AMSAA added collection efforts on high priority weapons systems, such as, selected Army aircraft, and started to collect data to support contingency operations in 2000. In 2001 data collection was reestablished in United States Army Europe (USAREUR). The data collection has since been broadened to cover wartime operations and new initiatives.

2-4. New initiatives

Many initiatives are being supported by the current collection efforts. The Army recapitalization (RECAP), MARC studies, global war on terrorism (GWOT), maintenance concept changes, RESET, and total cost of ownership, are

programs being supported by the SDC Program. Automatic information technology (AIT) devices have been incorporated into the program to enhance the accuracy and timeliness of the data collection efforts.

Chapter 3 Scope

3-1. Scope

The SDC Program is worldwide. The collection of data will be from selected continental United States (CONUS) and outside continental United States (OCONUS) units during normal operations, contingencies, or exercises.

3-2. Application

The SDC Program applies to all Army commands (ACOM) and subordinate units, to include Army service component commands (ASCC), direct reporting units (DRU), and special repair facilities. The Army National Guard (ARNG) and U.S. Army Reserve (USAR) units may request data or request analysis based on need as applicable to their equipment. Data is not routinely collected within ARNG or USAR units during normal operations.

Chapter 4 General description of SDC operations

4-1. Overview

a. Structure. The Army SDC Program covers many Army systems at various locations throughout the CONUS and OCONUS. AMSAA manages the program through an established contract that is awarded to collect and store logistics data. AMSAA then houses the data and allows broad access throughout the Army. AMSAA analysts also provide information and analysis for the major decision makers within the Army staff. Unit feedback reports and special studies are provided to the participating and like units. The Army SDC Program consists of two major collection efforts:

(1) *Sample data collection.* Selected units, through the cluster sampling technique, participate in the SDC Program. A particular system is nominated by someone with a recognized need for information from that system. If data collection is then deemed necessary for the system, units that possess and operate the system are then selected to participate. Data collectors will then collect and review maintenance information and enter the required data into the data base. The data is then transferred to the central data base at AMSAA.

(2) *Field exercise data collection.* When units go through a field exercise, a data collector is assigned at the exercise location to collect data during that period. This program collects data on major end items in the unit before, during, and after the exercise. The pre-collection period serves to establish the baseline, determine the equipment to be monitored, and determine the preexisting condition of the equipment to be monitored. During the exercise, data is collected to determine maintenance requirements during high operational tempo (OPTEMPO), parts and labor requirements, and costs. The post collection period is conducted to capture any deferred maintenance actions and follow-up on the ending status of the equipment.

b. Intent. The vision for the SDC Program is to maximize the value added in support of Army programs and studies. Future SDC efforts should tailor programs to—

- (1) Avoid duplication of data that may be available from another source.
- (2) Use AIT to enhance or improve the collection of data.
- (3) Support other initiatives and programs to the maximum extent possible.
- (4) Provide unique data to support unique analysis needed.

c. Collector expectations. The collection efforts are conducted by the contracted data collectors with non-interference to the unit to the maximum extent possible. A unit procedures guide (UPG) is located in appendix B of this document to outline the data collection methodology and responsibilities the unit may expect. The collectors conduct data quality reviews and the program has built in edits for quality assurance. Data accuracy and completeness are essential in order to determine requirements, support studies, and provide information to ARSTAF for high level decision making.

d. Origin. All data originates from the equipment operators/maintainers through the current Standard Army Management Information System (STAMIS). SDC efforts, however, can provide optional elements, personal readings, reports on unique equipment, tailored reports, quality edit checks, and include organizational level man hours. The intent is to capture data that is not available through current STAMIS. In addition, special data collection initiatives can be tailored to address specific needs of program managers, field units, Department of the Army, and Army Materiel Command (AMC).

4-2. Function

The Headquarters, Department of the Army (HQDA), Deputy Chief of Staff (DCS), G-4 provides guidance and direction to AMSAA for the SDC program, and ensures that all Army elements are aware of the data availability. ACOMs within the Department of the Army review the proposals for SDC and provide approval for unit participation. AMSAA has been designated as the executive agent for overall SDC program management. AMSAA conducts SDC and/or FEDC in an ACOM's subordinate unit in accordance with terms prescribed in a memorandum of understanding (MOU) signed by both organizations.

4-3. Types and methods of collection

a. The 3 types of SDC are—

(1) *Conventional Sample Data Collection*. These encompass specific equipment end items and are comprised of mandatory and discretionary projects. Mandatory SDC projects are directed and funded by DCS, G-4. The equipment proponent selects discretionary projects. When properly justified, any activity requiring data may request that the SDC proponent establish a discretionary SDC project. Discretionary projects are normally funded by the activity identifying the need for information. Conventional projects have a duration of 3 years, unless extended or terminated by the DA.

(2) *Special field information tasks (SFITs)*. These are short term (1 year or less) and are designed to support program executive office (PEO), program manager (PM), and ASCC requirements that do not dictate a full-scale SDC project. The SFITs also may be used to augment selected ARSTAF objectives but cannot duplicate other ongoing efforts. An activity having a need for materiel system field performance data may request an SFIT through the SDC Program. The SFITs are normally funded by the requesting activity (PM or equipment proponent).

(3) *Field exercise data collection*. FEDCs encompass collection of maintenance and operational data on mission essential end items (normally equipment readiness code P and A, as defined in AR 220-1) during selected major field training exercises (FTXs). The DA-approved FEDC projects are three years in duration, unless extended or terminated by DA.

b. There are 4 methods or levels of data collection. They are authorized commensurate with information required, objectives to be achieved, and cost considerations. The data collection method to be selected is outlined in the unit procedures guide and is the most cost effective and least disruptive of field operation while still accomplishing the objectives of the SDC effort.

(1) *Level 1*. Owning unit and support personnel will allow SDC data collectors to review/copy standard DA forms. Additional data elements, as required, will be provided by owning unit and support personnel, but are restricted to an absolute minimum and requires strong justification. The SDC proponent representatives will collect data, perform quality checks, transcribe data as required, reduce data if required, and forward data to a designated site.

(2) *Level 2*. Owning unit and support personnel will allow SDC data collectors to review/copy standard DA forms. SDC proponent agency representatives, however, will collect additional data elements, verbally and through direct observation of owning and support units. The SDC proponent representatives will collect standard DA forms, perform quality checks, transcribe data as required, reduce data if required, and forward forms/reduced data to a designated site. No additional reporting burden will be placed on participating field units.

(3) *Level 3*. This data collection method is highly detailed and is associated with data collection during intensive usage scenarios in which SDC proponent representatives will collect highly complex reliability, availability, and maintainability data, including data reported through various standard Army systems. No additional reporting burden will be placed on field units. Examples of this method include follow-on evaluations, lead the fleet, and recapitalization programs. This method will be used only when properly justified to accomplish complex requirements.

(4) *FEDC*. FEDC also encompasses collection of maintenance and operational data on equipment readiness code (ERC) P and A items during contingency operations such as military operations other than war (MOOTW), stabilizing operations, and peacekeeping operations. Contingency operation FEDC programs can occur after the first year of deployment with approval of the contingency operation task commander. Level 2 is the authorized data collection method during contingency operations to minimize the administrative burden on Soldiers and disruption of unit operations.

Chapter 5 Benefits and Uses of SDC

5-1. Overview

Some of the current projects being supported include RECAP, Two Level Maintenance, National Maintenance Program (NMP), Stryker Brigade Combat Team (SBCT) sustainability, war reserves/contingency planning, manpower requirements methodology development, and authorized stockage list (ASL)/prescribed load list (PLL) determinations. Reshaping of SDC includes incorporation of AIT devices to enhance the collection efforts to improve data accuracy and decrease costs. Top component failures can be identified by cost, man-hours expended to replace, or frequency of occurrence as illustrated in figure 5-1.

*M1114 Usage and Parts Consumption in a specified location
(source: Sample Data Collection)*

Data collected over 18 month period

- 476 M1114s
- Over 4 million miles total
- Average *OPTEMPO* of 18.6 miles per day

EXAMPLE TOP 10 PARTS SORTED BY OTY REPLACED (Notional Data)

- Division Data Requested:
AMSAA provided:*
- Average *OPTEMPO*
 - Top 50 most frequently replaced parts
 - Top 50 most costly parts replaced
 - Top 50 parts requiring the most MMH to replace

Part NSN	Noun Nomenclature	Cost of Part	Quantity
2540-01-123-4567	Seat, Vehicular	\$231.00	131
2920-01-234-5678	Glow Plug	\$5.36	128
2610-00-345-6789	Tire, Pneumatic	\$267.00	122
5820-00-456-7890	Spring Assembly	\$61.70	116
1560-00-567-8901	Bracket	\$144.00	111
6140-00-678-9012	Battery, Storage	\$80.45	97
2910-01-789-0123	Nozzle, Windshield	\$1.68	92
2540-01-890-1234	Seat, Vehicular	\$200.00	83
2540-01-901-2345	Diffuser, Air	\$4.31	82
6240-01-012-3456	Lamp, Incandescent	\$1.35	81

Figure 5-1. Top failures

5-2. Recapitalization

Historical data provides the baseline for RECAP studies. Contact memory buttons (CMB) are placed in easily readable locations with birthing data. This allows the data collector to download accurate data and reduce the time required to manually enter this data. The equipment with the CMB installed will then be fielded to a unit participating in SDC. The data analysis can then show the performance comparisons with the baseline, system reliability/maintainability, and other characteristics. This is shown in figure 5-2.

Recapitalization

- **Planning:** AMSAA used historical SDC to identify candidate components for PMs and establish baselines

- **Data Collection:** AMSAA data collectors co-located with unit maintenance personnel are capturing all usage and unscheduled maintenance

- Reading “birthing” data from Contact Memory Buttons (CMBs) on selected components and sending to Army Recap Tracking Information System (ARTIS)
- Installing and initializing CMBs when required (M88s)
- Deployed with units

- **Analysis:** Recap performance vs. baseline
 - Replacement rates of individual components
 - System-level reliability, availability, and maintainability comparisons

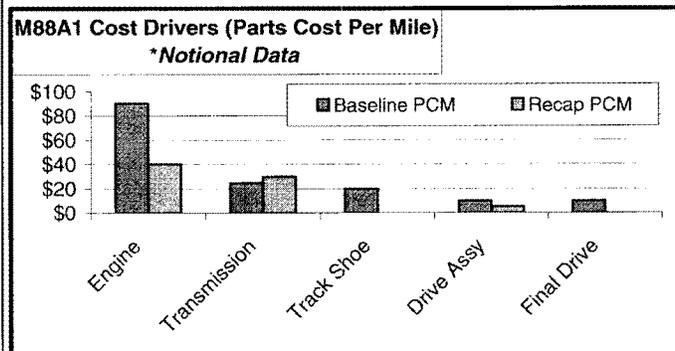


Figure 5-2. Recapitalization

5-3. Two-level maintenance

The SDC Program may also be used to assist and evaluate the transition to Two-Level Maintenance. This program can be used to conduct “what if” scenarios that evaluate business rules, developing demand adjustment factors for cost computations and presenting criteria to select cost effective procurements.

5-4. National Maintenance Program

AMSAA supports the National Maintenance Program by development of a simulation tool for evaluating business rules. Also, budget cost factors can be adjusted as needed from demand predictions.

5-5. Stryker Brigade Combat Team

The SBCT can also be supported by the expanded SDC program efforts. AMSAA will collect usage data and a support contractor will provide parts consumption data. AMSAA will also conduct standard SDC on legacy systems. This is illustrated in figure 5-3.

Stryker Brigade Combat Teams

- *AMSAA Collecting Usage Data on Strykers; Parts Consumption Data Supplied by GDLS*
- *AMSAA Conducting Standard SDC on Legacy Vehicles*
- *AMSAA Downloading Data From the Engine Control Unit*

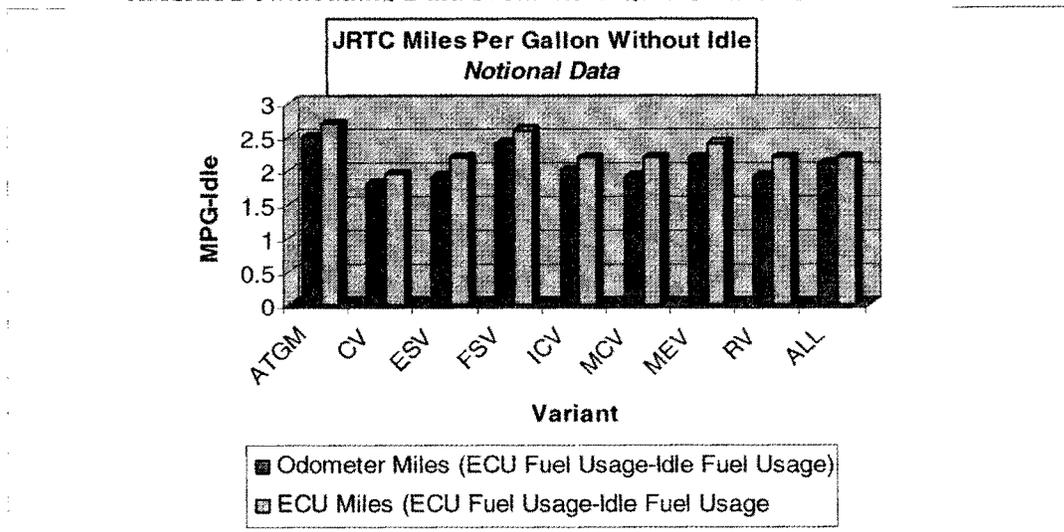


Figure 5-3. Stryker brigade combat teams

5-6. RESET

Data may also be used to support Army restockage and restoration programs such as RESET. The data repository houses data by weapon systems, such as, parts required and man-hours expended. The collection effort may take place at the theater of operations or at the depot/repair facility. This data may be used to support war reserve requirements determinations.

5-7. Manpower requirements

The Army Audit Agency identified a deficiency concerning the lack of a standard procedure in determining wartime manpower requirements for combat support and combat service support functions in tables of organization and equipment (TOEs). As a result, AMSAA developed a standard manpower requirements criteria (MARC) methodology which incorporates the use of field data to determine and update direct productive annual maintenance man-hours (DPAMMH). This standard MARC methodology has been accepted and approved by the Army community for implementation across its various weapon systems. Utilizing the standard MARC methodology, system level usage, coupled with MOS task level maintenance man-hours, can be combined to derive DPAMMHs which are used to develop wartime manpower requirements. SDC is crucial in capturing accurate unit level maintenance man-hours along with the associated operational tempo for standard MARC methodology - as current Army STAMISs do not report viable man-hours at this level.

5-8. ASL/PLL

Many units are benefiting from the improved ASL and PLL. Improved readiness through engineering redesign and product modifications are realized as well. Models are developed to use the data to determine optimum stockage and

locations of repairs and consumables. Analysis produces such factors as mean miles to replace, mean time to repair, consumption data and costs, downtimes, and man-hours used per unit (flight hour, mile, operating hour, or kilometer).

5–9. Condition based maintenance

Program managers are required to optimize operational readiness through affordable, integrated, embedded diagnostics and prognostics, automatic identification technology; and iterative technology refreshment. Condition based maintenance (CBM) is a set of maintenance processes and capabilities that improve operational availability and reduce the maintenance burden by enhancing diagnostics ultimately evolving to predicting remaining component life. The goal of CBM is to perform maintenance only upon evidence of need rather than hours or days, providing commanders the ability to meet mission requirements with proactively driven maintenance. CBM processes can increase operational availability and readiness at a reduced cost throughout the weapon system life cycle. By using vehicle instrumentation and automated data collection, AMSAA can compile and report usage data to fleet managers, engineers (product improvement), and logistics managers. Additionally, by developing and feeding data to prognostic tools/algorithms, impending failure and unsafe or damaging usage information can be provided to vehicle operators, maintainers, commanders, and Life Cycle Management Commands (LCMC).

5–10. Fleet health assessments

Data may be used to define equipment health, prioritize maintenance options, forecast future operating costs, and optimize equipment utilization.

5–11. General

Data is being provided to users and ARSTAF questions are being answered from data query. Data analysis is also being used to support special studies and programs. This data is also being used to identify problems in fielding and operations in a field type environment that cannot be found during pre-fielded testing.

Chapter 6 Requests for data collection

6–1. Requirements

Project managers, ACOMs, or field units, MSCs/SRAs, or any data user may request data collection efforts on any system or systems. The request should be sent to AMSAA, Logistics Analysis Division, AMSRD–AMS–LR, for consideration. Each request should be accompanied with appropriate and adequate justification for requirement of the data. AMSAA, with support from AMC and Research and Development Engineering Command (RDECOM), will prioritize each request based on justification and need pending funding and resource availability. AMSAA will coordinate the memorandum of understanding (MOU) with the affected ACOM and units.

6–2. Funding

AMSAA may support a portion of the data collection effort requested. If the requestor has additional or unique requirements, they may provide additional funding to support these efforts or contract separately for these data collections. All requests should be directed to AMSAA to include those additional or separately funded tasks.

6–3. Existing data requests

Requests for data or analysis from data that already exists should also be directed to AMSAA.

Chapter 7 Conclusion and Summary

7–1. Provisions

The Army SDC Program is active throughout CONUS and OCONUS sites on many systems and in many operational environments. It provides centralized project support to critical requirements determinations for high priority weapon systems. It provides reliable data to support analysis for operation and support cost computations, readiness, reliability, maintainability, logistics support, Class IX sustainment, and Class VII deployability. It also provides an analytical basis for establishing Class IX war reserve requirements.

7–2. Coverage

The FEDC Program covers the major end items in a battalion size unit during an exercise to observe wartime

OPTEMPO. SDC collects continuous data for a particular type vehicle or system for a select period of time. It collects all scheduled and unscheduled maintenance events during a peacetime environment.

7-3. Additional information

Since the data elements collected, systems involved, and participating unit locations vary and change frequently, this information has been intentionally omitted from this document. This information can be obtained from AMSAA, Logistics Analysis Division, AMSRD-AMS-LR, at Aberdeen Proving Ground, MD.

Appendix A References

Section I Required Publications

AR 70-1

Army Acquisition Policy (Cited in para 1-2.)

AR 220-1

Unit Status Reporting (Cited in para 4-3a(3)).)

AR 750-1

Army Materiel Maintenance Policy (Cited in para 2-2.)

DODD 4151.18

Maintenance of Military Materiel. (Cited in para 2-2.) (Available at <http://www.dtic.mil/whs/directives/>.)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this publication.

DA PAM 738-751

Functional Users Manual For The Army Maintenance Management System Aviation (TAMMS-A)

DA PAM 750-8

The Army Maintenance Management System (TAMMS) Users Manual

DODI 4000.19

Interservice and Intragovernmental Support. (Available at <http://www.dtic.mil/whs/directives/>.)

Section III Prescribed Forms

This section contains no entries

Section IV Referenced Forms

DA Form 2404

Equipment Inspection and Maintenance Worksheet

DA Form 2407

Maintenance Request

DA Form 2407-1

Maintenance Request-Continuation Sheet

DA Form 2408-12

Army Aviator's Flight Record

DA Form 2408-13

Aircraft Status Information Record

DA Form 2408-13-1

Aircraft Inspection and Maintenance Record

DA Form 2408-13-2

Related Maintenance Actions Record

DA Form 2408-13-3

Aircraft Technical Inspection Worksheet

DA Form 5988-E

Equipment Inspection and Maintenance Worksheet

DA Form 5990-E

Maintenance Request

Appendix B Unit Procedures Guide, Sample Data Collection Program

B-1. Introduction

Your unit has been selected to participate in a data collection program. The program has been developed to record OPTEMPO, the parts replaced and the maintenance man-hours expended during contingency operations, field training exercises and/or garrison operations. Contractor personnel have been hired to complete most of the paperwork. There will be some additional information requested; however, interference to your unit operations will be kept to a minimum. All government and contractor data collection personnel possess appropriate security clearances necessary for them to gain access to areas, such as, motor pools and maintenance areas. The government representatives and contractors on the data collection team are not inspectors. **THEY ARE NOT LOOKING FOR OR REPORTING ON UNIT PROBLEMS.** The only report generated from the data collection that specifically identifies your unit is sent solely to the unit commander. It simply compares how the unit equipment performs against the database averages for similar equipment. For other analyses, data from your unit is appended to a database with data on all other units so that Army-wide statuses can be determined. The data collection team members are gathering only the required data. The cooperation of all unit personnel will assure the success of many important programs. The collected data will be used in critical studies to facilitate proper support of your unit during wartime, such as—

- a. *Combat sustainment packages* - to determine your unit's parts stockage.
- b. *Manpower studies* - to determine the quantity and military occupational specialties (MOS) of the mechanics authorized for your unit.
- c. *Readiness studies* - to determine stockage requirements for contingency operations.
- d. *Vehicle life studies* - to determine when your ground or aviation equipment should be replaced.

B-2. Unit and contractor personnel functions

- a. *Your unit—*
 - (1) Provides the contractor access to the unit's supply and maintenance records to include Unit Level Logistics System-Ground/Air (ULLS-G/A) and Standard Army Maintenance System-1/2 (SAMS-1/2) (replaced by SAMS-E when fielded to the unit) reports when available.
 - (2) Allows the contractor access to your equipment and records to obtain age, miles, hours, rounds, petroleum, oil and lubricants (POL) consumption, and so forth.
 - (3) Completes standard Army forms for supply and maintenance in accordance with DA PAM 750-8, and DA PAM 738-751, with some additional information requirements explained in this guide.
 - (4) Provides completed maintenance forms (ground and/or aviation) to the contractor.
 - (5) Provides copies of equipment data files (EDF) and PLL or Shop Stock Listings.
 - (6) Contacts the government's contracting officer's representative (COR) to resolve conflicts with any contractor personnel. The COR contact information is: DSN 298-2328, COM (410)278-2328, U.S. Army Materiel Systems Analysis Activity, 392 Hopkins Road, ATTN: AMSRD-AMS-LR, Aberdeen Proving Ground, MD 21005-5071.
- b. *Contractor personnel—*
 - (1) Collect required data with minimal interference to supply and maintenance personnel.
 - (2) Collect required data with no interference to maneuver elements.
 - (3) Conduct initial and final inventories of unit's equipment.
 - (4) Assist unit personnel with data collection procedures.
 - (5) Interview crews only as necessary to gather additional required information.
 - (6) Are identified by unique headgear and ID tags.
 - (7) Update AIT devices as required.
- c. *Government contracting officer representative—*
 - (1) Assures that the contractor, in cooperation with unit personnel, collects the required data.
 - (2) Answers questions regarding data collection.

- (3) Resolves any problems between unit personnel and contractor(s).

B-3. Definitions

a. Reportable actions - Information should be reported on—

(1) All operator or crew actions requiring a replacement part on any reportable item included in the data collection program in your unit.

(2) All maintenance actions accomplished on any reportable item included in the data collection program in your unit.

(3) All support maintenance actions on reportable items included in the data collection program in your unit.

b. Reportable maintenance man-hours - This includes all direct productive man-hours spent performing a maintenance action.

(1) Getting to a job in the immediate area (no transportation required).

(2) Consulting reference books (log books, technical manuals, and so forth).

(3) Preparing the item for maintenance.

(4) Diagnosing the problem (obtaining, connecting, and using diagnostic equipment in the immediate area).

(5) Disassembly (including acquisition of tools in the immediate area).

(6) Remove and replace actions (including acquiring parts available in the immediate area).

(7) Align and adjust actions.

(8) Final checkout actions.

(9) Documentation (preparing standard forms such as log books).

c. Nonreportable man-hours - Those maintenance man-hours which are not directly related to a specific action should not be reported.

(1) Contact team travel outside the immediate area.

(2) Any delays during which the mechanic is available to perform maintenance, such as waiting for a part.

(3) Maintenance administration, training or meetings.

d. Part source - When a part is used to repair an item, the data collectors want to know where the part was actually obtained, but are not attempting to validate unit supply sources. Possible sources include—

(1) Shop stock.

(2) Quick supply store (QSS).

(3) Self service supply center (SSSC).

(4) Prescribed load list (PLL).

(5) Authorized stockage list (ASL).

(6) Repairable exchange (RX).

(7) Cannibalization point.

(8) Unit controlled substitution.

(9) Other.

e. Reportable Items - Mission essential end items in your unit will be included in this data collection. For this data collection, mission essential end items have been divided into two categories; bulk and individual.

(1) *Individual reportable items* - Those which have usage meters:

(a) Combat vehicles.

(b) Tactical vehicles.

(c) Generators - Over 3 kilowatts.

(d) Aircraft.

(2) *Bulk reportable items* - Those which do not have usage meters:

(a) Communications gear - radios, telephone typewriters (TTY).

(b) Weapons - small arms, crew served weapons.

(c) Nuclear, biological, chemical (NBC) items.

(d) Generators - 3 kilowatts and under.

(3) *Items which are not included in Classes VII & IX will not have data collected unless a special short term effort has been requested.* These items include—

(a) Field mess items.

(b) Test, Measurement, and Diagnostic Equipment (TMDE).

(c) Personal use items - binoculars, compasses, and so forth.

B-4. Data collection procedures

a. The contractor collects initial inventory data at your unit's home location. The contractor will be located in the

approximate vicinity of your maintenance shops. Your unit provides access to supply and maintenance records. Your unit provides access to individual end items.

b. During daily operations, or field training exercises, your unit completes the standard maintenance and supply forms. The contractor collects and makes copies of those maintenance forms and checks other available data sources. The contractor may follow-up and interview selected maintenance personnel to insure completeness of the data.

c. After field training exercises when the unit returns to its home station, the contractor collects the final inventory data. The final inventory will not be accomplished until completion of the program on that specific end item. The contractor will follow-up with any maintenance that was deferred during the exercise until the unit has returned to its home station.

B-5. Ground data collection reports and forms

a. Organization and direct support (Field-Level Maintenance) forms.

- (1) DA Form 2404 (Equipment inspection and maintenance worksheet).
- (2) DA Form 5988-E (Equipment inspection and maintenance worksheet) (ULLS-G generated).
- (3) DA Form 2407 (Maintenance request).
- (4) DA Form 2407-1 (Maintenance request-continuation sheet).
- (5) DA Form 5990-E Maintenance request (ULLS-G generated).

b. Organization and direct support (Field Level Maintenance) STAMIS reports.

- (1) AWC MF-436 Parts received not installed (ULLS-G report).
- (2) AWC MF-458 Nonmission capable report (ULLS-G report).
- (3) AWC SF-253 Inactive document control register (ULLS-G report).
- (4) AWC SF-255 Open/closed document control register (ULLS-G report).
- (5) AHN-004 Customer work order reconciliation (SAMS-1 report).
- (6) ANH-006 Shop summary (direct support unit) (SAMS-1 report).
- (7) AHN-008 Document control register (SAMS-1 report).
- (8) AHN-018 Workorder detail report (SAMS-1 report).
- (9) AHO-026 Equipment deadline over xxx days by battalion (SAMS-2 report).
- (10) Army Materiel System Status (AMSS) rolup by system/subsystem admin number.

B-6. Preparation of DA Form 2404/5988-E

DA Form 2404/5988-E should be completed in accordance with DA PAM 750-8. A separate DA Form 2404/5988-E (Equipment inspection and maintenance worksheet) should be completed for each repair of an individual reportable mission essential end item. The following information should also be recorded on the form.

a. Military occupational specialty (MOS) and skill level - For each corrected fault, the MOS and skill level of each person who worked on the item should be entered in column d.

b. Total man-hours that each person expended on the action should be listed after the MOS and skill level.

c. All parts replaced during each action should be reported with NSN and/or part number, quantity and source. Part source is used to verify PLL/ASL adequacy, not to check on unit activity.

d. The date and time the item entered maintenance and the date and time it was returned to service.

B-7. Preparation of DA Form 2407

DA Form 2407 (Maintenance request) should be completed in accordance with DA PAM 750-8 and DA PAM 738-751. The following information should also be recorded on the form.

a. *Bumper number* - The unit equipment number should be entered in block number 20.

b. *MOS and skill level* - For each corrected fault, the MOS and skill level of each person who worked on the item should be entered in column 27H. Actual MOS and skill level are required.

c. *Man-hours* - The number of man-hours that each person expended on the action should be listed after the MOS and skill level in column 27I.

d. *Parts replaced* - For each action, the NSN or part number, quantity, and source should be reported.

B-8. Aviation data collection forms

Aviation forms should be completed in accordance with DA PAM 738-751. No additional information is required. If there are any questions on data reporting, contact the contractor or the government representative.

a. DA Form 2407.

b. DA Form 2407-1.

c. DA Form 2408-12 (Army aviator's flight record).

- d.* DA Form 2408-13 (Aircraft status information record).
- e.* DA Form 2408-13-1 (Aircraft inspection and maintenance record).
- f.* DA Form 2408-13-2 (Related maintenance actions record).
- g.* DA Form 2408-13-3 (Aircraft technical inspection worksheet).
- h.* Phased maintenance inspection checklist.

Glossary

Section I Abbreviations

AIT

automatic information technology

AMSAA

Army Materiel Systems Analysis Activity

AMSS

Army Materiel System Status

AR

Active Army Reserves

ARNG

Army National Guard

ARSTAF

Army staff

ASL

authorized stockage list

ATTN

attention

BCT

brigade combat team

CBM

condition based maintenance

CMB

contact memory button

CONUS

continental United States

COR

contracting officer's representative

DA

Department of the Army

DCS

Deputy Chief of Staff

DOD

Department of Defense

DODD

Department of Defense directive

DPAMMH

direct productive annual maintenance man hours

DSN

defense switched network

EDF

equipment data files

ERC

equipment readiness code

FEDC

field exercise data collection

FTX

field training exercise

GWOT

global war on terrorism

ID

identifier

LCMC

Life Cycle Management Command

MACOM

Major Army Command

MANPRINT

manpower and personnel integration

MARC

manpower requirements criteria

MOU

memorandum of understanding

MOOTW

military operations other than war

MOS

military occupational specialty

MSC

major subordinate command

MWO

modification work order

NSN

national stock number

NMP

National Maintenance Program

OCONUS

outside continental United States

OPTEMPO

operational tempo

PAM

pamphlet

PEO

Program Executive Office

PLL

prescribed load list

PM

program manager

QSS

quick supply store

RAM

reliability, availability, and maintainability

RDECOM

Research and Development Engineering Command

RECAP

Recapitalization

RX

repairable exchange

SAMS

Standard Army Maintenance System

SAMS-E

Standard Army Maintenance System-Enhanced

SBCT

Stryker brigade combat team

SDC

sample data collection

SFIT

special field information tasks

SRA

separate repair activity

SRF

separate repair facility

SSSC

self supply service center

STAMIS

Standard Army Management Information System

TAMMS

The Army Maintenance Management System

TAMMS-A

The Army Maintenance Management System-aviation

TOE

tables of organization and equipment

ULLS-A

Unit Level Logistics System-air

ULLS-G

Unit Level Logistics System-ground

UPG

unit procedures guide

USAR

U.S. Army Reserve

USAREUR

U.S. Army Europe

Section II**Terms****Baseline**

Initial or historical data usually used to compare/contrast performance after application of modification, restoration, or new like system.

Class VII

The class of supply pertaining to major end items or systems.

Class IX

The class of supply pertaining to repair parts.

Contingency

Alternate military operations requiring a high level of effort.

OPTEMPO

Operational intensity of or pertaining to intensity of use.

Proponent

Activity or agent responsible for oversight of a project, mission, or system.

Queries

Tailored questions asked of systems that require a response in a desired format.

RESET

A generic term that represents a series of actions taken to restore units to a desired level of combat capability commensurate with mission requirements and available resources.

Stryker

Wheeled vehicle fighting system with armor.

Two level Maintenance

Concept of repair that essentially combines the unit and DS levels of maintenance (and is called "field maintenance") and combines the GS and depot levels (and is called "sustainment maintenance"). Field maintenance is characterized by "on-system maintenance," and sustainment maintenance is "off-system maintenance." Field maintenance is repair and return to user; sustainment maintenance is repair and return to supply.

Section III**Special Abbreviations and Terms**

This section contains no entries.

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