

ATTACHMENT 0005

SUMMARY TITLE: MAINTENANCE ANALYSIS	
<p>SPECIFIC INSTRUCTIONS: The Contractor shall document a Maintenance Analysis Summary for the system. This summary will identify each repairable item and may be used to verify that the maintenance actions and support structure are aligned with the government's requirements and maintenance concept. The analysis will be conducted and documented in end item hardware breakdown sequence, and all parts and support equipment will have Functional Group Code assigned. The FGC shall be used in accordance with TB 750-93-1, MIL-STD-40051 and the MAC. The summary should identify all preventive and corrective maintenance actions along with the required spares and support equipment to perform each maintenance task. All tasks recommended for training will be identified. The Annual Maintenance Man-hour data will be used to prepare the BOIP Feeder Data. The summary data shall also be used to develop the Maintenance Allocation Chart (MAC). The following data elements are required. The Contractor may add additional data elements as desired.</p>	
<p>DATA IN LMI SPECIFICATION <i>(Please provide the data product title):</i></p> <p>LMI 0140 COMMERCIAL GOVERNMENT ENTITY (CAGE) CODE LMI 1050 REFERENCE NUMBER (Part Number) (Include both Prime and Supplier Part Numbers) LMI 0370 INDENTURE CODE LMI 0480 ITEM NAME LMI 0690 NEXT HIGHER ASSY PROVISIONING LINE ITEM SEQUENCE NUMBER (NHA PLISN) (If assigned) LMI 0890 PROVISIONING LINE ITEM SEQUENCE NUMBER (PLISN) (If assigned) LMI 1220 SOURCE, MAINTENANCE AND RECOVERABILITY (SMR) CODE LMI 1500 UNIT OF ISSUE PRICE (UI PRICE) Based on a Lot of 100 Units</p>	
<p>DATA NOT IN LMI SPECIFICATION <i>(Please provide the data product title, its definition and its format):</i></p> <ol style="list-style-type: none"> 1. Functional Group Code (FGC). 2. Maintenance Function (i.e., inspect, replace, repair, etc.). 3. Task Code (see guidance on page 2). 4. Task Times by Level of Maintenance. They are: Field, which includes C-Crew and F-Maintainer, formerly named Direct Support, and Sustainment, which includes H-Below Depot, formerly named General Support, L-Special Repair Activity, and D-Depot. Use clock hours to one decimal place. 5. Common Tool Requirements-use common tool sets only, not individual tools. 6. Special Tools Requirements by Maintenance Task. Include Vendor, Part Number, and Cost (US Dollars, Based on a Lot of 10 Units). 7. Number of Personnel Required to Accomplish the Task. 8. Task Frequency (annual occurrence to two decimal places). 9. Military Occupational Specialty (MOS)*. 10. Annual Maintenance Man Hours (AMMH) = #4 X #7 X #8 above. 11. Tasks recommended for training (Critical Task List). 12. Critical Stockage List Part. 13. NMWR Candidate Item. <p>Note 1: Additional data elements may be added at Contractor's discretion. Note 2: The contractor shall annotate each operator and maintenance task in this Analysis where the contractor recommends the task be added to the Training and Doctrine Command (TRADOC) Program of Instruction (POI) and/or New Equipment Training (NET) for each specific MOS. *Government Provided Information.</p>	
SUMMARY LAYOUT: Contractor's format (Microsoft Excel compatible)	

1. Task Code Guidance. The Task Code shall contain three (3) characters consisting of a Task Action Code, Task Interval Code and Task Level Code.

- a. Task Action Codes authorized for use.

(1) FGC TASK CODE	DEFINITION
A	Inspect - To determine the serviceability of an item by comparing its physical, mechanical or electrical characteristics with established standards through examination.
B	Test - To verify serviceability and detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.
C	Service - Operation required periodically to keep an item in proper operating condition; i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fluids, or compressed air supplies.
D	Adjust - To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.
F	Calibrate - To re-program a digital LRU/SRU. This involves programming to a new software revision level. <u>Note:</u> Reprogramming tasks are to be coded as "calibrate" tasks, with nomenclature for the task per definition above, i.e., a reprogram task will be coded as a F calibrate task, but titled as "reprogram."
G	Remove/Install – To perform the operation necessary to gain access to an item of the next lower level of indenture, or to an item blocking accessibility to the item under analysis. This code should also be used to document tasks removing or installing AAL or BII items.
L	Rebuild - Consists of those services/actions necessary for the restoration of unserviceable equipment to a "like new" condition in accordance with the original manufacturing standards. Rebuild is the highest degree of material maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles, etc.) considered in classifying Army equipment/components.
J*	Repair - The application of maintenance services or other maintenance actions to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, sub-assembly, module (component or assembly), end item or system.
H*	Replace - The act of substituting like type part, sub-assembly, or module (component or assembly), for an unserviceable counterpart.
N	Fault Location - The process of investigating and detecting the cause of equipment malfunctioning, or the act of isolating a fault within a system or Unit Under Test.

* Replace vs. Repair task definitions.

(2) Task Code Clarifying Guidance

- (a) Align Tasks are to be coded as Adjust tasks, with nomenclature for the task per definition above, i.e., an align task will be coded as a "D" Adjust task, but titled as "Align" task.
- (b) Reprogramming tasks are to be coded as "calibrate" tasks, with nomenclature for the task per definition above, i.e., a reprogram task will be coded as an "F" calibrate task, but titled as "reprogram".
- (c) Separate Remove and Install tasks will not be required. Only integrated Remove/Install tasks using G Install will be utilized for: The act of placing, seating, or fixing into position an item, part, or module (component of assembly in manner to allow the proper functioning of an equipment or system).
- (d) Replace "H" coded tasks shall be prepared only for repairable items. A non-repairable item that is substituted for its non-repairable, unserviceable counterpart shall constitute a "J" coded task to be prepared against the next higher assembly Provisioning Line Item Sequence Number (PLISN).
- (e) Repair "J" coded tasks are not to consume repairable items. An item listed with an Item Category Code (ICC) of "Y" for a repair task coded "J" must be a repair part that may be replaced during the maintenance task. If an assembly or subassembly contains several nonrepairable wear-out parts and the sequence for fault isolation and replacement of any of those worn-out parts is essential, the same process for each wear-out part preparation of a single "J" coded repair task shall be considered sufficient for documentation purposes.
- b. Task Interval Codes authorized for use

FGC TASK	DEFINITION
(1) <u>INTERVAL CODE</u>	
A	Preoperative – Inspection accomplished prior to the first operation of the day.
B	Scheduled – Inspection/corrective action task performed on a scheduled basis that does not have its own Task Interval Code. Task frequency shall reflect the scheduled nature of the task.
D	During Operation – Occurring during each operation.
G	Unscheduled – Those predictable maintenance requirements that had not been previously planned, but require prompt attention to maintain the system in or restore it to operating condition.
H	Postoperative – Inspection accomplished after each operation.
J	Emergency – Resulting from an unforeseen combination of circumstances that calls for immediate action to prevent injury to personnel and/or damage to equipment.
K	Normal – Operational tasks part of the normal operating environment of the system.
L	Weekly – Inspection/services performed on a weekly basis.
M	Quarterly – Inspection/service performed on a quarterly basis.
N	Semiannual – Inspection/service performed on a semiannual basis.
P	Monthly – Inspection/service performed on a monthly basis.

Q **Yearly** – Inspection/service performed on an annual basis.

c. Task Level Codes authorized for use

<u>MAINT. LEVEL CODE</u>	<u>DEFINITION</u>
C	Crew Maintenance
F	Maintainer Maintenance
H	Below Depot Sustainment
L	Specialized Repair Activity, including vendor
D	Depot Sustainment (overhaul/rebuild)

2. **Task Files.** The contractor's maintenance analysis shall be structured so that it is possible to extract the following reports from the analysis:

- a. Maintenance Task file, listing all tasks by task code, (FGC) and MAC function.
- b. Annual Maintenance Manhour (AMMH) Report, listing AMMH for each MOS by level of maintenance.
- c. Critical Task List, listing of tasks by task code, (FGC), MAC function and MOS.

3. **Draft MAC.** The contractor shall deliver a draft formatted MAC as part of and concurrent with each maintenance analysis review and submittal.

4. **Critical Stockage List (CSL).** The contractor shall identify each part in the maintenance analysis that meets the criteria for the critical stockage list.

5. **Levels of Army Maintenance.**

a) **Field Level Maintenance:** Field Level Maintenance is comprised of the Unit (Crew, Organizational) and Direct Support functions. The Field Maintenance consists of Operators/Crew, Organizational and selected Direct Support maintenance capabilities from the previous four level maintenance system where the maintenance functions of inspection, test, service, adjust, align, remove/install, install, replace, and repair are performed. Field Maintenance will consist of Preventative Maintenance Checks and Services (PMCS) (lubricate, clean, preserve, tighten, replace, adjust), inspection of external and easy access components, diagnosis of faults repairs accomplished on a component, accessory, assembly, subassembly, plug-in unit or other portions either on the system or after it is removed from the equipment. Field Level Maintenance is primarily forward. Major assemblies that require rebuild are evacuated to Sustainment Level Maintenance for repair or rebuild and then returned to the supply system for re-issue. Sustainment Level Maintenance is comprised of General Support and Depot functions.

b) **Sustainment Level Maintenance:** Sustainment Level Maintenance consists of repairing components, assemblies, modules, and end items in support of the supply system. Sustainment maintenance is characterized as "off system" and "repair rear". The intent of this level is performing commodity-oriented repair on all supported items to one standard that provides a consistent and measurable level of reliability. GS Maintenance provides rear echelon repairs of major components or assemblies, sub-assemblies or plug-in units to like new or nearly new condition. System components repaired at GS Level are turned in to the Army Supply System as replacement parts ready for issue. Such repairs or restorations require skills, tools and expertise not found in the unit-focused, forward Field Level

maintenance support facilities. GS maintenance is skilled repairs to include routine calibration, but it does not include overhaul nor specialized machining or specialized calibration such as calibration of fuel injector pumps. Procedures beyond the skills of GS maintenance (Depot Level Maintenance) will not be addressed in the GS portions of the TM. Sustainment Level Maintenance requires a National Maintenance Work Requirement (NMWR).

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