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From: Commandant of the Marine Corps
To: Distribution List

Subj: OCCUPATIONAL FIELD 2800 GROUND ELECTRONICS MAINTENANCE TRAINING AND READINESS MANUAL, (SHORT TITLE: 2800 GROUND T&R MANUAL)

Ref: (a) MCO P3500.72A
(b) MCO 1553.3A
(c) MCO 3400.3F
(d) MCO 3500.27A
(e) MCRP 3-0A
(f) MCRP 3-0B
(g) MCO 1553.2B

1. Purpose. Per reference (a), this T&R Manual establishes Individual Training Standards (ITS) for required events for standardization of training for Marines assigned within the 2800 Military Occupational Specialty (MOS). Additionally, it provides tasking for formal schools preparing personnel for service in the Marine Corps. This NAVMC supersedes NAVMC 3500.6, Occupational Field 2800 Ground Electronics Maintenance Training and Readiness Manual.

2. Scope

a. Per reference (b), commanders will conduct an internal assessment of the individual Marine's MOS proficiency and develop long-, mid-, and short-range training plans to sustain this proficiency. Training plans will incorporate events to standardize training and provide objective assessment of progress toward attaining individual MOS proficiency. Commanders will keep records at the individual level to record training achievements, identify training gaps, and document objective assessments of readiness associated with training Marines. Commanders will use reference (c) to incorporate nuclear, biological, and chemical defense training into training plans, and reference (d) to integrate operational risk management. References (e) and (f) provide amplifying information for effective planning and management of training within the unit.

b. Formal school and training detachment commanders will use references (a) and (g) to ensure programs of instruction meet skill training requirements established in this manual, and provide career-progression training in the events designated for initial training in the formal school environment.

3. Information. CG, TECOM will update this T&R Manual as necessary to provide current and relevant training standards to commanders, and to ensure a current ITS is available for use. All questions pertaining to the Marine Corps Ground T&R Program and Unit Training Management should be directed to: Commanding General, TECOM (Ground Training Branch C 469), 1019 Elliot Road, Quantico, VA 22134.

4. Command. This manual is applicable to the Marine Corps Total Force.

5. Certification. Reviewed and approved this date.

M. G. [illegible]
By direction

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RECORD OF CHANGES

Log completed change action as directed.

Change Number	Date of Change	Date Entered	Signature of Person Incorporated Change

2800 GROUND T&R MANUAL

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CHAPTER 1

OVERVIEW

1000. INTRODUCTION

1. The T&R Program is the Marine Corps' primary tool for planning, conducting and evaluating training and assessing training readiness. Subject matter experts (SMEs) from the operating forces developed core capability Mission Essential Task Lists (METLs) for ground communities derived from the Marine Corps Task List (MCTL). T&R Manuals are built around these METLs and all events contained in T&R Manuals relate directly to this METL. This comprehensive T&R Program will help to ensure the Marine Corps continues to improve its combat readiness by training more efficiently and effectively. Ultimately, this will enhance the Marine Corps' ability to accomplish real-world missions.

2. The T&R Manual contains the individual and collective training requirements to prepare units to accomplish their combat mission. The T&R Manual is not intended to be an encyclopedia that contains every minute detail of how to accomplish training. Instead, it identifies the minimum standards that Marines must be able to perform in combat. The T&R Manual is a fundamental tool for commanders to build and maintain unit combat readiness. Using this tool, leaders can construct and execute an effective training plan that supports the unit's METL. More detailed information on the Marine Corps Ground T&R Program is found in reference (a).

1001. UNIT TRAINING

1. The training of Marines to perform as an integrated unit in combat lies at the heart of the T&R program. Unit and individual readiness are directly related. Individual training and the mastery of individual core skills serve as the building blocks for unit combat readiness. A Marine's ability to perform critical skills required in combat is essential. However, it is not necessary to have all individuals within a unit fully trained in order for that organization to accomplish its assigned tasks. Manpower shortfalls, temporary assignments, leave, or other factors outside the commander's control, often affect the ability to conduct individual training. During these periods, unit readiness is enhanced if emphasis is placed on the individual training of Marines on-hand. Subsequently, these Marines will be mission ready and capable of executing as part of a team when the full complement of personnel is available.

2. Commanders will ensure that all tactical training is focused on their combat mission. The T&R Manual is a tool to help develop the unit's training plan. In most cases, unit training should focus on achieving unit proficiency in the core capabilities METL. However, commanders will adjust their training focus to support METLs associated with a major OPLAN/CONPLAN or named operation as designated by their higher commander and reported accordingly in the Defense Readiness Reporting System (DRRS). Tactical

training will support the METL in use by the commander and be tailored to meet T&R standards. Commanders at all levels are responsible for effective combat training. The conduct of training in a professional manner consistent with Marine Corps standards cannot be over emphasized.

3. Commanders will provide personnel the opportunity to attend formal and operational level courses of instruction as required by this Manual. Attendance at all formal courses must enhance the warfighting capabilities of the unit as determined by the unit commander.

1002. UNIT TRAINING MANAGEMENT

1. Unit Training Management (UTM) is the application of the Systems Approach to Training (SAT) and the Marine Corps Training Principles. This is accomplished in a manner that maximizes training results and focuses the training priorities of the unit in preparation for the conduct of its wartime mission.

2. UTM techniques, described in references (b) and (e), provide commanders with the requisite tools and techniques to analyze, design, develop, implement, and evaluate the training of their unit. The Marine Corps Training Principles, explained in reference (b), provide sound and proven direction and are flexible enough to accommodate the demands of local conditions. These principles are not inclusive, nor do they guarantee success. They are guides that commanders can use to manage unit-training programs. The Marine Corps training principles are:

- Train as you fight
- Make commanders responsible for training
- Use standards-based training
- Use performance-oriented training
- Use mission-oriented training
- Train the MAGTF to fight as a combined arms team
- Train to sustain proficiency
- Train to challenge

3. To maintain an efficient and effective training program, leaders at every level must understand and implement UTM. Guidance for UTM and the process for establishing effective programs are contained in references (a) through (g).

1003. SUSTAINMENT AND EVALUATION OF TRAINING

1. The evaluation of training is necessary to properly prepare Marines for combat. Evaluations are either formal or informal, and performed by members of the unit (internal evaluation) or from an external command (external evaluation).

2. Marines are expected to maintain proficiency in the training events for their MOS at the appropriate grade or billet to which assigned. Leaders are responsible for recording the training achievements of their Marines. Whether it involves individual or collective training events, they must ensure proficiency is sustained by requiring retraining of each event at or

before expiration of the designated sustainment interval. Performance of the training event, however, is not sufficient to ensure combat readiness. Leaders at all levels must evaluate the performance of their Marines and the unit as they complete training events, and only record successful accomplishment of training based upon the evaluation. The goal of evaluation is to ensure that correct methods are employed to achieve the desired standard, or the Marines understand how they need to improve in order to attain the standard. Leaders must determine whether credit for completing a training event is recorded if the standard was not achieved. While successful accomplishment is desired, debriefing of errors can result in successful learning that will allow ethical recording of training event completion. Evaluation is a continuous process that is integral to training management and is conducted by leaders at every level and during all phases of planning and the conduct of training. To ensure training is efficient and effective, evaluation is an integral part of the training plan. Ultimately, leaders remain responsible for determining if the training was effective.

3. The purpose of formal and informal evaluation is to provide commanders with a process to determine a unit's/Marine's proficiency in the tasks that must be performed in combat. Informal evaluations are conducted during every training evolution. Formal evaluations are often scenario-based, focused on the unit's METs, based on collective training standards, and usually conducted during higher-level collective events. References (a) and (f) provide further guidance on the conduct of informal and formal evaluations using the Marine Corps Ground T&R Program.

1004. ORGANIZATION

1. T&R Manuals are organized in one of two methods: unit-based or community-based. Unit-based T&R Manuals are written to support a type of unit (Infantry, Artillery, Tanks, etc.) and contain both collective and individual training standards. Community-based are written to support an Occupational Field, a group of related Military Occupational Specialties (MOSs), or billets within an organization (EOD, NBC, Intel, etc.), and usually only contain individual training standards. T&R Manuals are comprised of chapters that contain unit METs, collective training standards (CTS), and individual training standards (ITS) for each MOS, billet, etc.

2. The Ground Electronics Maintenance T&R Manual is a community-based manual comprised of 20 chapters.

1005. T&R EVENT CODING

1. T&R events are coded for ease of reference. Each event has a 4-4-4-digit identifier. The first four digits are referred to as a "community" and represent the unit type or occupation (TANK, TOW, 1802, etc.). The second four digits represent the functional or duty area (TAC, CMDC, GNRY, etc.). The last four digits represent the level and sequence of the event.

2. The T&R levels are illustrated in Figure 1. An example of the T&R coding used in this Manual is shown in Figure 2.

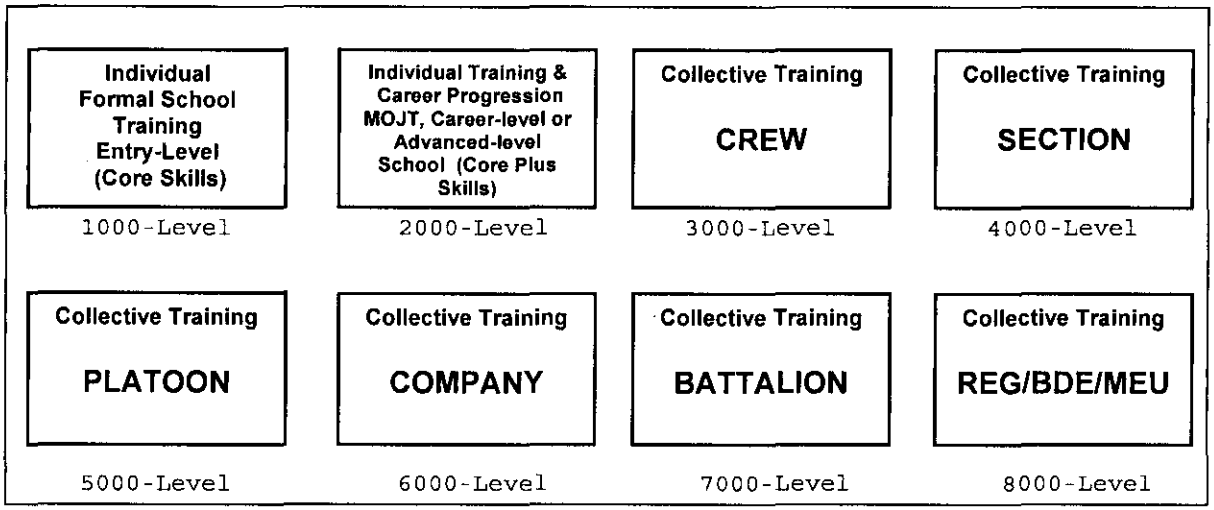

Figure 1: T&R Event Levels

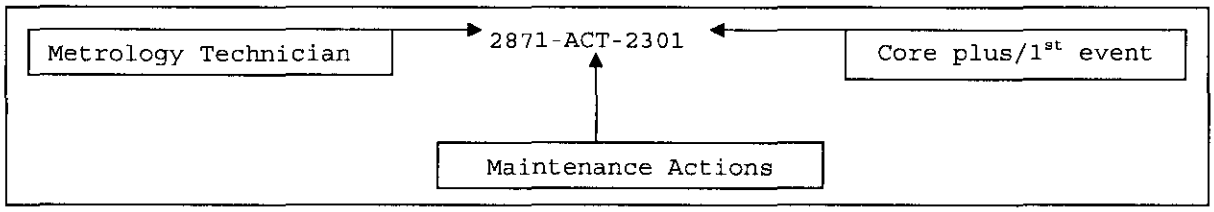

Figure 2: T&R Event Coding

1006. COMBAT READINESS PERCENTAGE

1. The Marine Corps Ground T&R Program includes processes to assess readiness of units and individual Marines. Every unit in the Marine Corps maintains a basic level of readiness based on the training and experience of the Marines in the unit. Even units that never trained together are capable of accomplishing some portion of their missions. Combat readiness assessment does not associate a quantitative value for this baseline of readiness, but uses a "Combat Readiness Percentage", as a method to provide a concise descriptor of the recent training accomplishments of units and Marines.

2. Combat Readiness Percentage (CRP) is the percentage of required training events that a unit or Marine accomplishes within specified sustainment intervals.

3. In unit-based T&R Manuals, unit combat readiness is assessed as a percentage of the successfully completed and current (within sustainment interval) key training events called "Evaluation-Coded" (E-Coded) Events. E-Coded Events and unit CRP calculation are described in follow-on paragraphs. CRP achieved through the completion of E-Coded Events is directly relevant to readiness assessment in DRRS.

4. Individual combat readiness, in both unit-based and community-based T&R Manuals, is assessed as the percentage of required individual events in which a Marine is current. This translates as the percentage of training events for his/her MOS and grade (or billet) that the Marine successfully completes within the directed sustainment interval. Individual skills are developed through a combination of 1000-level training (entry-level formal school courses), individual on-the-job training in 2000-level events, and follow-on formal school training. Skill proficiency is maintained by retraining in each event per the specified sustainment interval.

1007. EVALUATION-CODED (E-CODED) EVENTS

1. Unit-type T&R Manuals can contain numerous unit events, some for the whole unit and others for integral parts that serve as building blocks for training. To simplify training management and readiness assessment, only collective events that are critical components of a mission essential task (MET), or key indicators of a unit's readiness, are used to generate CRP for a MET. These critical or key events are designated in the T&R Manual as Evaluation-Coded (E-Coded) events. Formal evaluation of unit performance in these events is recommended because of their value in assessing combat readiness. Only E-Coded events are used to calculate CRP for each MET.

2. The use of a METL-based training program allows the commander discretion in training. This makes the T&R Manual a training tool rather than a prescriptive checklist.

1008. CRP CALCULATION

1. Collective training begins at the 3000 level (team, crew or equivalent). Unit training plans are designed to accomplish the events that support the unit METL while simultaneously sustaining proficiency in individual core skills. Using the battalion-based (unit) model, the battalion (7000-level) has collective events that directly support a MET on the METL. These collective events are E-Coded and the only events that contribute to unit CRP. This is done to assist commanders in prioritizing the training toward the METL, taking into account resource, time, and personnel constraints.

2. Unit CRP increases after the completion of E-Coded events. The number of E-Coded events for the MET determines the value of each E-Coded event. For example, if there are 4 E-Coded events for a MET, each is worth 25% of MET CRP. MET CRP is calculated by adding the percentage of each completed and current (within sustainment interval) E-Coded training event. The percentage for each MET is calculated the same way and all are added together and divided by the number of METS to determine unit CRP. For ease of calculation, we will say that each MET has 4 E-Coded events, each contributing 25% towards the completion of the MET. If the unit has completed and is current on three of the four E-Coded events for a given MET, then they have completed 75% of the MET. The CRP for each MET is added together and divided by the number of METS to get unit CRP; unit CRP is the average of MET CRP.

For Example:

MET 1: 75% complete (3 of 4 E-Coded events trained)
MET 2: 100% complete (6 of 6 E-Coded events trained)
MET 3: 25% complete (1 of 4 E-Coded events trained)
MET 4: 50% complete (2 of 4 E-Coded events trained)
MET 5: 75% complete (3 of 4 E-Coded events trained)

To get unit CRP, simply add the CRP for each MET and divide by the number of METS:

MET CRP: 75 + 100 + 25 + 50 + 75 = 325

Unit CRP: 325 (total MET CRP)/ 5 (total number of METS) = 65%

1009 T&R EVENT COMPOSITION

1. This section explains each of the components of a T&R event. These items are included in all events in each T&R Manual.

a. Event Code (see Sect 1006). The event code is a 4-4-4 character set. For individual training events, the first 4 characters indicate the occupational function. The second 4 characters indicate functional area (TAC, CBTS, VOPS, etc.). The third 4 characters are simply a numerical designator for the event.

b. Event Title. The event title is the name of the event.

c. E-Coded. This is a "yes/no" category to indicate whether or not the event is E-Coded. If yes, the event contributes toward the CRP of the associated MET. The value of each E-Coded event is based on number of E-Coded events for that MET. Refer to paragraph 1008 for detailed explanation of E-Coded events.

d. Supported MET(s). List all METs that are supported by the training event.

e. Sustainment Interval. This is the period, expressed in number of months, between evaluation or retraining requirements. Skills and capabilities acquired through the accomplishment of training events are refreshed at pre-determined intervals. It is essential that these intervals are adhered to in order to ensure Marines maintain proficiency.

f. Billet. Individual training events may contain a list of billets within the community that are responsible for performing that event. This ensures that the billets expected tasks are clearly articulated and a Marine's readiness to perform in that billet is measured.

g. Grade. Each individual training event will list the rank(s) at which Marines are required to learn and sustain the training event.

h. Initial Training Setting. For Individual T&R Events only, this specifies the location for initial instruction of the training event in one of three categories (formal school, managed on-the-job training, distance

learning). Regardless of the specified Initial Training Setting, any T&R event may be introduced and evaluated during managed on-the-job training.

(1) "FORMAL" - When the Initial Training Setting of an event is identified as "FORMAL" (formal school), the appropriate formal school or training detachment is required to provide initial training in the event. Conversely, formal schools and training detachments are not authorized to provide training in events designated as Initial Training Setting "MOJT" or "DL." Since the duration of formal school training must be constrained to optimize Operating Forces' manning, this element provides the mechanism for Operating Forces' prioritization of training requirements for both entry-level (1000-level) and career-level (2000-level) T&R Events. For formal schools and training detachments, this element defines the requirements for content of courses.

(2) "DL" - Identifies the training event as a candidate for initial training via a Distance Learning product (correspondence course or MarineNet course).

(3) "MOJT" - Events specified for Managed On-the-Job Training are to be introduced to Marines, and evaluated, as part of training within a unit by supervisory personnel.

i. Event Description. Provide a description of the event purpose, objectives, goals, and requirements. It is a general description of an action requiring learned skills and knowledge (e.g. Camouflage the M1A1 Tank).

j. Condition. Describe the condition(s), under which tasks are performed. Conditions are based on a "real world" operational environment. They indicate what is provided (equipment, materials, manuals, aids, etc.), environmental constraints, conditions under which the task is performed, and any specific cues or indicators to which the performer must respond. When resources or safety requirements limit the conditions, this is stated.

k. Standard. The standard indicates the basis for judging effectiveness of the performance. It consists of a carefully worded statement that identifies the proficiency level expected when the task is performed. The standard provides the minimum acceptable performance parameters and is strictly adhered to. The standard for collective events is general, describing the desired end-state or purpose of the event. While the standard for individual events specifically describe to what proficiency level in terms of accuracy, speed, sequencing, quality of performance, adherence to procedural guidelines, etc., the event is accomplished.

l. Event Components. Describe the actions composing the event and help the user determine what must be accomplished and to properly plan for the event.

m. Prerequisite Events. Prerequisites are academic training or other T&R events that must be completed prior to attempting the task. They are lower-level events or tasks that give the individual/unit the skills required to accomplish the event. They can also be planning steps, administrative requirements, or specific parameters that build toward mission accomplishment.

n. Chained Events. Collective T&R events are supported by lower-level collective and individual T&R events. This enables unit leaders to effectively identify subordinate T&R events that ultimately support specific mission essential tasks. When the accomplishment of any upper-level events, by their nature, result in the performance of certain subordinate and related events, the events are "chained." The completion of chained events will update sustainment interval credit (and CRP for E-Coded events) for the related subordinate level events.

o. Related Events. Provide a list of all Individual Training Standards that support the event.

p. References. The training references are utilized to determine task performance steps, grading criteria, and ensure standardization of training procedures. They assist the trainee in satisfying the performance standards, or the trainer in evaluating the effectiveness of task completion. References are also important to the development of detailed training plans.

q. Distance Learning Products (IMI, CBT, MCI, etc.). Include this component when the event can be taught via one of these media methods vice attending a formal course of instruction or receiving MOJT.

r. Support Requirements. This is a list of the external and internal support the unit and Marines will need to complete the event. The list includes, but is not limited to:

- Range(s)/Training Area
- Ordnance
- Equipment
- Materials
- Other Units/Personnel
- Other Support Requirements

s. Miscellaneous. Provide any additional information that assists in the planning and execution of the event. Miscellaneous information may include, but is not limited to:

- Admin Instructions
- Special Personnel Certifications
- Equipment Operating Hours
- Road Miles

2. Community-based T&R manuals have several additional components not found in unit-based T&R manuals. These additions do not apply to this T&R Manual.

1010. CBRNE TRAINING

1. All personnel assigned to the operating force must be trained in chemical, biological, radiological, nuclear, and explosive incident defense (CBRNE), in order to survive and continue their mission in this environment. Individual proficiency standards are defined as survival and basic operating standards. Survival standards are those that the individual must master in order to survive CBRNE attacks. Basic operating standards are those that the

individual, and collectively the unit, must perform to continue operations in a CBRNE environment.

2. In order to develop and maintain the ability to operate in an CBRNE environment, CBRNE training is an integral part of the training plan and events in this T&R Manual. Units should train under CBRNE conditions whenever possible. Per reference (c), all units must be capable of accomplishing their assigned mission in a contaminated environment.

1011. NIGHT TRAINING

1. While it is understood that all personnel and units of the operating force are capable of performing their assigned mission in "every climate and place," current doctrine emphasizes the requirement to perform assigned missions at night and during periods of limited visibility. Basic skills are significantly more difficult when visibility is limited.

2. To ensure units are capable of accomplishing their mission they must train under the conditions of limited visibility. Units should strive to conduct all events in this T&R Manual during both day and night/limited visibility conditions. When there is limited training time available, night training should take precedence over daylight training, contingent on individual, crew, and unit proficiency.

1012. OPERATIONAL RISK MANAGEMENT (ORM)

1. ORM is a process that enables commanders to plan for and minimize risk while still accomplishing the mission. It is a decision making tool used by Marines at all levels to increase operational effectiveness by anticipating hazards and reducing the potential for loss, thereby increasing the probability of a successful mission. ORM minimizes risks to acceptable levels, commensurate with mission accomplishment.

2. Commanders, leaders, maintainers, planners, and schedulers will integrate risk assessment in the decision-making process and implement hazard controls to reduce risk to acceptable levels. Applying the ORM process will reduce mishaps, lower costs, and provide for more efficient use of resources. ORM assists the commander in conserving lives and resources and avoiding unnecessary risk, making an informed decision to implement a course of action (COA), identifying feasible and effective control measures where specific measures do not exist, and providing reasonable alternatives for mission accomplishment. Most importantly, ORM assists the commander in determining the balance between training realism and unnecessary risks in training, the impact of training operations on the environment, and the adjustment of training plans to fit the level of proficiency and experience of Sailors/Marines and leaders. Further guidance for ORM is found in references (b) and (d).

1013. APPLICATION OF SIMULATION

1. Simulations/Simulators and other training devices shall be used when they are capable of effectively and economically supplementing training on the

identified training task. Particular emphasis shall be placed on simulators that provide training that might be limited by safety considerations or constraints on training space, time, or other resources. When deciding on simulation issues, the primary consideration shall be improving the quality of training and consequently the state of readiness. Potential savings in operating and support costs normally shall be an important secondary consideration.

2. Each training event contains information relating to the applicability of simulation. If simulator training applies to the event, then the applicable simulator(s) is/are listed in the "Simulation" section and the CRP for simulation training is given. This simulation training can either be used in place of live training, at the reduced CRP indicated, or can be used as a precursor training for the live event, i.e., weapons simulators, convoy trainers, observed fire trainers, etc. It is recommended that tasks be performed by simulation prior to being performed in a live-fire environment. However, in the case where simulation is used as a precursor for the live event, then the unit will receive credit for the live event CRP only. If a tactical situation develops that precludes performing the live event, the unit would then receive credit for the simulation CRP.

1014. MARINE CORPS GROUND T&R PROGRAM

1. The Marine Corps Ground T&R Program continues to evolve. The vision for Ground T&R Program is to publish a T&R Manual for every readiness-reporting unit so that core capability METs are clearly defined with supporting collective training standards, and to publish community-based T&R Manuals for all occupational fields whose personnel augment other units to increase their combat and/or logistic capabilities. The vision for this program includes plans to provide a Marine Corps training management information system that enables tracking of unit and individual training accomplishments by unit commanders and small unit leaders, automatically computing CRP for both units and individual Marines based upon MOS and rank (or billet). Linkage of T&R Events to the Marine Corps Task List (MCTL), through the core capability METs, has enabled objective assessment of training readiness in the DRRS.

2. DRRS measures and reports on the readiness of military forces and the supporting infrastructure to meet missions and goals assigned by the Secretary of Defense. With unit CRP based on the unit's training toward its METs, the CRP will provide a more accurate picture of a unit's readiness. This will give fidelity to future funding requests and factor into the allocation of resources. Additionally, the Ground T&R Program will help to ensure training remains focused on mission accomplishment and that training readiness reporting is tied to units' METLs.

2800 GROUND T&R MANUAL

CHAPTER 2

2800 INDIVIDUAL EVENTS

2800 GROUND T&R MANUAL

CHAPTER 2

2800 INDIVIDUAL EVENTS

2000. PURPOSE. This chapter contains individual training events for Occupational Field 28, Ground Electronics Maintenance.

2001. INDIVIDUAL SKILLS

1. Core skills are basic individual skills that make a Marine and qualify them for an MOS. They are the 1000 level skills introduced in the entry level training in the formal schools and refined in operational units.

2. Core Plus Skills are advanced individual skills that are environment, mission, rank or billet specific. They are the 2000 level skills introduced in the entry level managed on the job training in operational units and advanced formal schools training.

2002. EVENT CODING. Events in the T&R Manual are depicted with an 11 or 12 digit alphanumeric system, i.e. XXXX-XXXX-XXXX, utilizing the following methodology:

a. Field one - Each event starts with 28XX. 2800 indicates that the event is a core capability for all Marines within the occupational field. 2844 indicates the event is for 2844, Ground Communications Organizational Repairer, etc.

b. Field two - This field is alpha characters indicating a functional area. The functional areas for this chapter are listed below:

Functional Area	Field Name	Example
Maintenance Planning	PLAN	2844-PLAN-XXXX
Maintenance Administration	ADMN	2844-ADMN-XXXX
Maintenance Actions	ACT	2844-ACT-XXXX
Maintenance Operations	OPS	2844-OPS-XXXX
Maintenance Training	TRNG	2844-TRNG-XXXX

c. Field three - All individual events within T&R Manuals are either 1000-level events that are taught at MOS-producing formal schools or 2000-level events that are taught at advanced-level schools or are MOJT. The first digit indicates whether it is a core (1) or core plus (2) event.

The second digit indicates the associated field and the last two digits indicate the task number. 2303 indicates that it is a core plus task and it is the third task within the Maintenance Actions functional area for that MOS. This chapter contains both level events.

MOS	Field Name	Associated Field Number	Core/ Core Plus	Task	Example
2800	PLAN	101-199	2	1	2800-PLAN-2101
2871	ADMN	201-299	1	4	2871-ADMN-1201
2846	ACT	301-399	2	3	2846-ACT-2303
2821	OPS	401-499	1	2	2821-OPS-1401
2805	TRNG	501-599	2	1	2805-TRNG-2501

2003. INDEX OF 1000-LEVEL EVENTS

2004. 1000-LEVEL EVENTS

2800-ADMN-1201: Document maintenance actions

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an equipment repair order, designated equipment and TMDE.

STANDARD: In accordance with TM 4700-15/1, Chapter 2-2.

PERFORMANCE STEPS:
1. Prepare ERO heading (T-card, 3-card) section.
2. Record job status changes, as required.
3. Record requisitioned parts, as required.
4. Record installed parts, as required.
5. Record category code changes, as required.
6. Record description of work, as required.
7. Record transmittal of work to higher echelons, as required.
8. Complete 9-card information.

REFERENCES:
1. FEDLOG Federal Logistic Data
2. MCO P4790.2C MIMMS Field Procedures Manual
3. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
4. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
5. MCO 4400.16 Uniform Material Movement and Issue Priority System
6. UM 4400-124 FMF SASSY Using Unit Procedures
7. UM 4400-123 FMF SASSY Management Unit Procedures
8. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
9. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
10. DLA Customer Assistance Handbook

SUPPORT REQUIREMENTS:

MATERIAL: Distance Learning Product Available: MCI 0410B, MIMMS (AIS)

2800-ADMN-1202: Requisition parts

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, designated faulty equipment and maintenance information system reports.

STANDARD: In accordance with TM 4700-15/1, Chapter 2-3.

PERFORMANCE STEPS:
1. Determine authorized level of maintenance.
2. Prepare equipment repair order shopping list (EROSL) header information.
3. Prepare EROSL transaction section.
4. Determine appropriate NSN/part number.
5. Determine source and maintenance codes.
6. Determine combat essentiality code (CEC).
7. Check the pre-expended bin, as required.
8. Submit a requisition.
9. Annotate parts receipts, as required.
10. File completed EROSLs.

REFERENCES:
1. Applicable technical manuals/publications
2. Associated SL-3/SL-4/parts listing
3. FEDLOG Federal Logistic Data
4. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
5. MCO 4400.16G Uniform Materiel Movement and Issue Priority System
6. MCO P4790.2C MIMMS Field Procedures Manual
7. MCO P5215.17C The Marine Corps Technical Publications System
8. Maintenance Float Catalog
9. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
10. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
11. UM 4400-124 FMF SASSY Using Unit Procedures
12. UM 4400-123 FMF SASSY Management Unit Procedures
13. DLA Customer Assistance Handbook

SUPPORT REQUIREMENTS:

MATERIAL: Distance Learning Product Available: MCI 0410B, MIMMS (AIS)

2800-ACT-1301: Solder electronic components

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2823, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL, SGT, SSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an electronic device, TMDE and tools.

STANDARD: To the standards set forth in TM 5895-45/1.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Ensure proper handling of static sensitive component/printed circuit cards.
3. Select appropriate soldering tip for required application.
4. Set soldering iron to correct temperature.
5. Clean intended application area.
6. Tin wire, as required.
7. Solder connectors, as required.
8. Fabricate a cable, as required.
9. Splice a wire cable, as required.
10. Solder components, as required.
11. Clean flux from connection.
12. Visually inspect to verify soldering meets standards.
13. Perform operational check.

REFERENCES:
1. 29 CFR1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
2. Applicable technical manuals/publications
3. MCO P5090.2A Environmental Compliance and Protection Manual (Jul 98)
4. MSDS Material Safety Data Sheets
5. SOLDERING IN ELEC "Soldering in Electronics Assembly", Judd and Brindley 1999
6. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
7. TM 9999-15/1 ESD Awareness Electro-Static Discharge
8. TM 9999-15/2 ESD Electro-static Discharge Management

2800-ACT-1302: Protect electrostatic sensitive devices

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2823, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL, SGT, SSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, electrostatic discharge (ESD) sensitive devices, ESD labels and ESD protection materials.

STANDARD: In accordance with TI-4400-15/1A.

PERFORMANCE STEPS:
1. Review references.
2. Identify devices requiring ESD protection.
3. Identify materials required to protect electrostatic sensitive devices.
4. Protect ESD sensitive devices during handling.
5. Protect ESD sensitive devices during storage.
6. Protect ESD sensitive devices during transport.

REFERENCES:
1. Applicable technical manuals/publications

2. DOD-HDBK-263B Electrostatic Discharge Control Handbook for Protection of Electrical and Electronic Parts, Assemblies and Equipment
3. DOD-STD-1686 Electrostatic Discharge Control
4. FMFRP 4-14 Field Grounding Procedures for Computers and Generators
5. MCRP 6-22C RADIO OPERATOR'S HANDBOOK
6. MCRP 6-22D Field Antenna Handbook
7. MCWP 6-22 Communications and Information Systems
8. MIL-STD-1686B Electro-Static Discharge Control Program for Protection of Electrical and Electronic Parts
9. MIL-STD-188-124A Military Standard for Grounding
10. NEETS Navy Electricity and Electronics Training Series
11. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
12. MCO 2410.2B Electromagnetic Effects Environmental Control Program
13. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
15. TM 9999-15/1 ESD Awareness
15. TM 9999-15/2 ESD Management
16. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
17. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety (Aug 91)

2800-ACT-1303: Diagnose basic electronic circuits

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2862, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, given a faulty electronic device, TMDE and tools.

STANDARD: To identify the faulty component.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagram for basic electronic circuits.
4. Calculate basic electronic circuit parameters.
5. Ensure proper handling of static sensitive components/printed circuit cards.
6. Measure basic electronic circuit performance.
7. Trace signal paths in basic electronic circuits.
8. Identify fault

REFERENCES:
1. 29 CFR1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
2. Applicable technical manuals/publications
3. FLUKE 199 User's Manual: Fluke 192/196/199 ScopeMeter
4. FLUKE 77/BN Operator Manual: Fluke 77/BN

5. HP 33120A HP33120A Function Generator/Arbitrary Waveform Generator Operator Guide
6. MSDS Material Safety Data Sheets
7. TM 9999-15/1 ESD Awareness
8. TM 9999-15/2 ESD Management
9. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
10. MCO 2410.2B Electromagnetic Effects Environmental Control Program
11. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
12. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety (Aug 91)

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Semiconductor Device Test Set
2. Oscilloscope
3. Function Generator
4. Multimeter
5. Signal Generator
6. Power Supply

MATERIAL: Distance Learning Products Available:
1. MCI 2820, Electronics Mathematics for Marines
2. MCI 286G, Fundamentals of Digital Logic
3. MCI 287A, Introduction to Test Measurement and Diagnostic Equipment

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2800-ACT-1304: Maintain an electrostatic sensitive device (ESD) safe work area

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, ESD sensitive devices and ESD workstation materials.

STANDARD: In accordance with TI-4400-15/1A, paragraph 4 and TM 9999-15/2, Chapter 6.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Verify earth ground connection to ESD desktop workstation/ESD field mat.
3. Verify ESD wrist strap connection to ESD workstation/ESD field mat.
4. Ensure all personnel in the work area adhere to ESD safety precautions.

REFERENCES:
1. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps

Platforms
2. MCO 2410.2 Electromagnetic Environmental Effects Control Program
3. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
4. TM 9999-15/1 Electrostatic Discharge Awareness
5. TM 9999-15/2 Electrostatic Discharge Awareness
6. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
7. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
8. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. ESD workstation/field mat.

2005. INDEX OF 2000-LEVEL EVENTS

2006. 2000-LEVEL EVENTS

2800-PLAN-2101: Analyze table of organization/equipment (TO&E)

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802, 2805, 2823, 2831, 2834, 2862, 2874, 2887, 2891

GRADES: SSGT, GYSGT, MSGT, MGYSGT, WO-1, CWO-2, CWO-3, CAPT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, a concept of employment, a mission and a table of organization/equipment.

STANDARD: To ensure there is adequate equipment and personnel to meet mission requirements.

PERFORMANCE STEPS:
1. Review mission statement.
2. Review table of organization/equipment.
3. Review concept of employment.
4. Review appropriate material fielding plans.
5. Review unit mission essential tasks.
6. Determine any special allowances, as required.
7. Identify required changes.
8. Determine impact to the DOTMLPF spectrum.
9. Draft table of equipment and organization change requests (TOECR).

REFERENCES:
1. CMR Consolidated Memorandum Report
2. MCO 5311.1 Total Force Structure Process (TFSP)
3. MCO P4400.150 Consumer-Level Supply Policy Manual
4. Unit TO/E Table of Organization/Equipment

2800-PLAN-2102: Plan for the deployment of a field maintenance facility

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802, 2805, 2831, 2834, 2862, 2874, 2887, 2891

GRADES: SSGT, GYSGT, MSGT, MGYSGT, WO-1, CWO-2, CWO-3, CAPT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment, a mission, and personnel.

STANDARD: To determine the unit's organization for maintenance in accordance with MCO P4790.2_, Appendix E, pages E-2 and E-3.

PERFORMANCE STEPS:
1. Review Mission/Operations Plan.

2. Analyze site characteristics: terrain, environment, tactical situation, size and mission of unit, maintenance requirements dictated by mission.
3. Determine space requirements, access routes, terrain features, proximity to supported units, and proximity to other logistics elements.
2. Record: safety procedures, test equipment requirements, maintenance facility requirements/space, power requirements, organic transportation requirements, external transportation, security requirements, storage requirements, reporting requirements and supply support requirements.
4. Submit plan for approval.

REFERENCES:
1. MCO P4790.2C MIMMS Field Procedures Manual
2. MCWP 3-40.3 Communications and Information Systems
3. MCWP 5-1 Marine Corps Planning Process
4. SECNAVINST 5510.36_ Dept of the Navy Information and Personnel Security Program Regulations
5. TM 9999-15/1 ESD Awareness Electro-Static Discharge
6. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
7. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
8. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
9. MCWP 3-40.3 Communications and Information Systems
10. Operational Order
11. UNIT SOP Unit's Standing Operating Procedures
12. Unit TO/E Table of Organization/Equipment
13. MCWP 4-24 Maintenance Operations
14. MCWP 5-1 Marine Corps Planning Process
15. MCRP 4-11.3 Unit Embarkation Handbook
16. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
17. MCO 2410.2 Electromagnetic Environmental Effects Control Program
18. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety

SUPPORT REQUIREMENTS:

MATERIAL: Distance Learning Products Available:
1. MCI 0414B, Ground Maintenance Management Procedures for Supervisors

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2800-PLAN-2103: Draft unit's maintenance policy letters

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802, 2805, 2831, 2834, 2862, 2874, 2887, 2891

GRADES: SSGT, GYSGT, MSGT, MGYSGT, WO-1, CWO-2, CWO-3, CAPT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, Commander's guidance, directives from higher headquarters, a mission and a table of organization/equipment.

STANDARD: In accordance with MCO P4790.2_, Chapter 1, paragraph 4.

PERFORMANCE STEPS:

1. Analyze mission, directives, policy guidance and references.
2. Determine Commander's additional policy guidance.
3. Determine procedures requiring deviation from existing policy.
4. Determine policies requiring amplification.
5. Record/state as required: safety procedures, maintenance procedures, training procedures, physical security procedures, transmission/emission security, cryptographic (COMSEC) procedures, command and control procedures, operational procedures, embarkation procedures, reports (administrative/operational), continuing actions of Marines, ECCM and an emergency action plan.
6. Indicate rationale why current directives are inadequate or inappropriate.
7. Staff policy letters for review.

REFERENCES:

1. MCO 1200.17 Military Occupational Specialties Manual
2. MCO 5311.1 Total Force Structure Process (TFSP)
3. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
4. Applicable technical manuals/publications
5. MCWP 3-40.3 Communications and Information Systems
6. MCWP 5-1 Marine Corps Planning Process
7. MSC MMSOP Major Subordinate Command Maintenance Management Standing Operating Procedures
8. Unit TO/E Table of Organization/Equipment
9. MCWP 4-24 Maintenance Operations
10. MCO P7100.8 Field Guidance Budget Manual
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. UM 4400-124 FMF SASSY Using Unit Procedures
24. UM 4400-60 Material Returns Program User's Manual
25. UM 4400-123 FMF SASSY Management Unit Procedures
26. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
27. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
28. MCO 4105.2 Marine Corps Warranty Program
29. ICE2 Statement of Requirements Document
30. Contracting Officer Representative (COR) ICE2 Handbook
31. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE)

Calibration and Maintenance Program (CAMP)
32. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
33. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
34. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
35. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
36. TI 4733-15/9 Radiac Instrument Calibration Requirements
37. TI 4733-15/10 Special Calibration of Torque Wrenches
38. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
39. TI 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
40. TI 4733-15/21 Survey Instrument Calibration
41. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
42. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
43. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
44. TM 4795-12/1 Corrosion Prevention and Control
45. TM 4795-34/2 Corrosion Prevention and Control
46. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
47. DODI 8523.01 Communications Security
48. DODI 8570.01-M Information Assurance Workforce Improvement Program
49. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
50. Electronic Key Management System (EKMS 1)

2800-ADMN-2201: Manage maintenance shop programs

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2823, 2831, 2834, 2844, 2846, 2847, 2862, 2874, 2887, 2891

GRADES: SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, equipment, personnel and tools.

STANDARD: In accordance with MCO P4790.2_, Chapter 1, MCO P4790.2_, Chapter 2, MCO P4790.2_, Chapter 3 and the unit's MMSOP.

PERFORMANCE STEPS:
1. Supervise the following programs: calibration control, publication control, quality control, modification control, tool control, pre-expend bin, product quality deficiency report (PQDR), recoverable items report (WIR) procedures, training, desktops/turnovers, embarkation, hazardous materials (HAZMAT), MIMMS, safety, shipping and receiving.

2. Supervise supply support procedures and special programs, e.g. SMU-credit card/PE/RA budgets, float recomputations, TO/E reviews, WIRs/LUPs, warranty administration, contracting officer representative procedures.
3. Supervise maintenance functions (PMCS, CM, MODS, CAL).
4. Supervise participation in maintenance related programs: inspect and repair only as necessary (IROAN), administrative storage and administrative deadline, contact teams, maintenance standown, joint oil analysis program, replacement and evacuation program, corrosion prevention and control program, depot master work schedules, data assurance team inspections, ELMP and DLMP.

REFERENCES:

1. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
2. Applicable technical manuals/publications
3. MCWP 3-40.3 Communications and Information Systems
4. MCWP 5-1 Marine Corps Planning Process
5. MPS Load Plan
6. Operational Order
7. UNIT SOP Unit's Standing Operating Procedures
8. Unit TO/E Table of Organization/Equipment
9. MCWP 4-24 Maintenance Operations
10. MCRP 4-11.3 Unit Embarkation Handbook
11. UM PLMS Publication Library Management System
12. MCO P5215.17 Marine Corps Technical Publications System
13. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
14. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
15. MCO 4400.16 Uniform Material Movement and Issue Priority System
16. MCO P4400.150 Consumer Level Supply Policy Manual
17. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
18. MCO P4400.82F Regulated/Controlled Items Management Manual
19. MCO P4790.1 MIMMS Introduction Manual
20. MCO P4790.2 MIMMS Field Procedures Manual
21. TM 4700-15/1 Ground Equipment Record Procedures
22. DLA Customer Assistance Handbook
23. UM 4400-124 FMF SASSY Using Unit Procedures
24. UM 4400-60 Material Returns Program User's Manual
25. UM 4400-123 FMF SASSY Management Unit Procedures
26. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
27. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
28. MCO 4105.2 Marine Corps Warranty Program
29. ICE2 Statement of Requirements Document
30. Contracting Officer Representative (COR) ICE2 Handbook
31. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
32. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
33. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
34. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
35. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
36. TI 4733-15/7 Procedural Publication Index for Test, Measurement and 38

Diagnostic Equipment Calibration and Maintenance Program
37. TI 4733-15/9 Radiac Instrument Calibration Requirements
38. TI 4733-15/10 Special Calibration of Torque Wrenches
39. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
40. TI 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
41. TI 4733-15/21 Survey Instrument Calibration
42. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
43. TI 4733-35/8 Marine Corps Transfer Standards Program
44. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
45. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
46. MCO 2410.2 Electromagnetic Environmental Effects Control Program
47. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control
48. TM 9999-15/1 Electrostatic Discharge Awareness
49. TM 9999-15/2 Electrostatic Discharge Awareness
50. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
51. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
52. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
53. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
54. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
55. TM 4795-12/1 Corrosion Prevention and Control
56. TM 4795-34/2 Corrosion Prevention and Control
57. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
58. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
59. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
60. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
61. DODI 8523.01 Communications Security
62. DODI 8570.01-M Information Assurance Workforce Improvement Program
63. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
64. Electronic Key Management System (EKMS 1)

SUPPORT REQUIREMENTS:

MATERIAL: Distance Learning Product Available:
1. MCI 0414B, Ground Maintenance Management Procedures for Supervisors
2. MCI 2525AP Communication Security
3. MarineNet Course 84870, COMSEC Awareness

2800-ADMN-2202: Analyze maintenance information

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2823, 2831, 2834, 2844, 2846, 2847, 2862, 2874, 2887

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, maintenance records, information systems and output reports.

STANDARD: To ensure required delivery dates are met and maximum maintenance cycle time is not exceeded in accordance with MCO P4790.2_, Chapter 4; MCO P4790.2_, Appendix G; and UM 4790-5.

PERFORMANCE STEPS:
1. Review EROs and EROSLs.
2. Provide input data.
3. Monitor MIMMS output reports.
4. Conduct validation and reconciliation, as required.
5. Monitor maintenance cycle times.
6. Monitor workflow.
7. Conduct maintenance management troubleshooting, as required.

REFERENCES:
1. MCWP 3-40.3 Communications and Information Systems
2. UNIT SOP Unit's Standing Operating Procedures
3. MCWP 4-24 Maintenance Operations
4. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
5. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
6. MCO 4400.16 Uniform Material Movement and Issue Priority System
7. MCO P4790.1 MIMMS Introduction Manual
8. MCO P4790.2 MIMMS Field Procedures Manual
9. TM 4700-15/1 Ground Equipment Record Procedures
10. DLA Customer Assistance Handbook
11. UM 4400-124 FMF SASSY Using Unit Procedures
12. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

MATERIAL: Distance Learning Product Available:
1. MCI 0414B, Ground Maintenance Management Procedures for Supervisors

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2800-ADMN-2203: Administer pre-expended bin (PEB) control program

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, a unit SOP and the Commander's authorization.

STANDARD: In accordance with MCO P4790.2_, Chapter 2, paragraph 2004 and MCO P4400.150, paragraph 5018.

PERFORMANCE STEPS:
1. Determine high usage, fast-moving items.
2. Prepare PEB stockage listing.
3. Monitor usage criteria.
4. Issue parts.
5. Conduct periodic inventories.
6. Establish re-order points.
7. Requisition replacement parts, as required.

REFERENCES:
1. MCO P4400.150 Consumer-Level Supply Policy Manual
2. MCO P4790.2 MIMMS Field Procedures Manual
3. UNIT SOP Unit's Standing Operating Procedures

2800-ADMN-2204: Administer calibration control program

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment requiring calibration and the unit's SOP.

STANDARD: To ensure equipment's calibration status is being maintained in accordance with MCO P4790.2 Appendix D and MCO P4733.1.

PERFORMANCE STEPS:
1. Identify all items of TMDE authorized the unit.
2. Locate all items requiring calibration.
3. Prepare calibration control records for all items of TMDE.
4. Determine calibration control category.
5. Determine calibration interval
6. Schedule items for calibration.
7. Induct equipment for calibration.

REFERENCES:
1. Applicable technical manuals/publications
2. CMR Consolidated Memorandum Report
3. MCO 4733.1 Marine Corps Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
4. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)

5. SL 1-2/3 Index of Authorized Publications in Stock
7. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
8. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
9. UNIT SOP Unit's Standing Operating Procedures
10. Unit TO/E Table of Organization/Equipment
11. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
12. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
13. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
14. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
15. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
16. TI 4733-15/9 Radiac Instrument Calibration Requirements
17. TI 4733-15/10 Special Calibration of Torque Wrenches
18. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
19. TI 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
20. TI 4733-15/21 Survey Instrument Calibration
21. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
22. TI 4733-35/8 Marine Corps Transfer Standards Program
23. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual

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2800-ADMN-2205: Administer modification control program

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2834, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, T/E, equipment, modification control forms and modification instructions.

STANDARD: To ensure the application and recording of all modifications for the unit's equipment, in accordance with MCO P4790.2_, paragraph 3004 and TM-4700-15/1, Chapter 2-5-1.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Identify equipment requiring modification.
3. Review modification instructions.
4. Induct equipment into the maintenance cycle, as required.
5. Requisition modification materials, as required.
6. Ensure application of modifications, as required.
7. Update modification control records.

REFERENCES:
1. CMR Consolidated Memorandum Report
2. CMS-5 COMSEC Material System Policy & Procedures Manual
3. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
4. MCO P4790.2 MIMMS Field Procedures Manual
5. SL 1-2/3 Index of Authorized Publications in Stock
6. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
7. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
8. Unit TO/E Table of Organization/Equipment
9. Applicable MIs & TIs
10. TM 4700-15/H

2800-ADMN-2206: Administer tool control program

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, designated tool kits, tool sets, chests, equipment and the unit's SOP.

STANDARD: To maintain accountability and control of all tool kits, chests, sets and organic equipment in accordance with MCO P4400.150, paragraph 2011 and 2012 and MCO P4790.2_, Appendix D.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Identify all assigned tool sets, kits and chests and equipment.
3. Establish special tool lists, as required.
4. Assign responsibility for maintenance of each tool set, chest, kit and equipment.
5. Identify inventory interval.
6. Maintain record for each tool set, chest, kit and organic equipment.
7. Verify inventories.
8. Requisition replacements, as required.
9. Manage daily tool issue and receipt.
10. Ensure security of all tool sets, chests, kits and organic equipment.

REFERENCES:
1. Applicable technical manuals/publications
2. CMR Consolidated Memorandum Report
3. MCO 4733.1B Marine Corps Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP) (Jun 99)
4. MCO P4400.150E Consumer-Level Supply Policy Manual (Jun 99)
5. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
6. SL 1-2/3 Index of Authorized Publications in Stock
7. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
8. UM 4400-124 Sassy Using Unit Procedures
9. UM 4400-15 Organic Property Control

10. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
11. UNIT SOP Unit's Standing Operating Procedures
12. Unit TO/E Table of Organization/Equipment
13. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
14. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
15. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
16. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
17. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools

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2800-ADMN-2207: Administer publication control program

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, a consolidated memorandum receipt (CMR), PLMS, publications, SL-1-2, a table of equipment (T/E) and the unit's SOP.

STANDARD: To establish and maintain a publications library in accordance with MCO P4790.2_, Paragraph 2008 and MCO P4790.2_ Appendix B.

PERFORMANCE STEPS:
1. Determine what equipment is rated or supported by each commodity/section.
2. Prepare a publications control form for each type of equipment rated.
3. Determine and record all authorized publications associated with each equipment type.
4. Determine and record quantities required.
5. Determine and record PCN for each publication.
6. Update publication listing (PL).
7. Requisition required publications.
8. Inventory publications.
9. Incorporate required changes.
10. Destroy obsolete publications.
11. Update inventory records.
12. Update publication control records.

REFERENCES:
1. Applicable technical manuals/publications
2. MCBUL 5600 Series
3. MCO 5215.12 Managing and Maintaining Navy Directives Files and Establishing "Must Hold" Lists
4. MCO 5215.1K Marine Corps Directives Management Program
5. MCO P4790.2C MIMMS Field Procedures Manual

6. MCO P5215.17C The Marine Corps Technical Publications System
7. NAVMC 2761 Catalog of Publications
8. SL 1-2/3 Index of Authorized Publications in Stock
9. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
10. UNIT SOP Unit's Standing Operating Procedures
11. Unit TO/E Table of Organization/Equipment
12. UM PLMS Publications Library Management System

SUPPORT REQUIREMENTS:

MATERIAL: Distance Learning Product Available:
1. MCI 0416A, The Marine Corps Publications and Directives System

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2800-ADMN-2208: Maintain record folders on organic maintenance equipment

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment and records.

STANDARD: To ensure individual principle end items (PEI) have a record folder in accordance with TM 4700-15, chapter 8.

PERFORMANCE STEPS:
1. Identify equipment requiring record folders.
2. Create record folders.
3. Create skeleton record folders for equipment in temporary loan.
4. Update records, as required.
5. Schedule PMCS in record folder on NAVMC 10561.

REFERENCES:
1. CMR Consolidated Memorandum Report
2. MCO P4790.2C MIMMS Field Procedures Manual
3. SL 1-2/3 Index of Authorized Publications in Stock
4. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
5. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
6. Unit TO/E Table of Organization/Equipment
7. Unit/MSC MMSOP

2800-ADMN-2209: Report product quality deficiency

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2874, 2887
GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, defective equipment and a Product Quality Deficiency Report.

STANDARD: In accordance with MCO 4855.10, paragraph 7 and TM 4700-15/1, Chapter 2-13.

PERFORMANCE STEPS:
1. Identify deficiencies in equipment or materials.
2. Segregate and secure defective equipment.
3. Identify deficiency category.
4. Prepare a product quality deficiency report (PQDR).
5. Submit the PQDR.

REFERENCES:
1. Applicable technical manuals/publications
2. MCO 4855.10B Product Quality Deficiency Report (PQDR)
3. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
4. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

2800-ADMN-2210: Administer quality control program

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2823, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2874, 2887

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, designated equipment and TMDE.

STANDARD: To ensure equipment performs to specified parameters in accordance with MCO P4790.2_, paragraph 3001, sub-paragraph e and MCO P4790.2_, Appendix E.

PERFORMANCE STEPS:
1. Determine performance standards.
2. Verify completion of maintenance actions.
3. Verify operational condition.
4. Verify completeness and accuracy of equipment records and forms.
5. Reject faulty equipment.
6. Verify equipment closeout.
7. Update desktop procedures.

REFERENCES:
1. Applicable technical manuals/publications
2. MCO P4790.2C MIMMS Field Procedures Manual
3. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
4. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

2800-ADMN-2211: Submit changes to technical publications

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, a NAVMC 10772 (Recommended Changes to Technical Publications) and technical publications requiring a change.

STANDARD: In accordance with MCO 5215.17 and TM 4700-15/H, Chapter 2-23.

PERFORMANCE STEPS:
1. Identify required changes.
2. Prepare the NAVMC 10772 with recommended changes.
3. Submit the NAVMC 10772.

REFERENCES:
1. Applicable technical manuals/publications
2. MCO P4790.2C MIMMS Field Procedures Manual
3. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
4. MCO 5215.17 Marine Corps Technical Publication System

2800-ADMN-2212: Administer electromagnetic environmental effects (E3) program

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2823, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2874, 2887

GRADES: CPL, SGT, SSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment, a mission and personnel.

STANDARD: To mitigate the effects of E3 in accordance with MCO 2410.2 and TI 5820-25/22_.

PERFORMANCE STEPS:
1. Develop/design installation techniques that cover the following areas: indirect coupling, shielding, grounding, bonding, filtering and corrosion control.
2. Develop maintenance standards.
3. Identify electromagnetic environmental effects (E3) problems to the unit E3 coordinator.

4. Ensure compliance with E3 procedures.

REFERENCES:
1. Applicable technical manuals/publications
2. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
3. MCO 2410.2 Electromagnetic Environmental Effects Control Program
4. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
5. TM 9999-15/1 ESD Awareness Electro-Static Discharge

2800-ADMN-2213: Perform the duties of a contracting officer representative (COR)

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802, 2805, 2891

GRADES: MSGT, MGYSGT, WO-1, CWO2, CWO3, CWO4, CAPT, MAJ

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, an applicable task order and a statement of requirements.

STANDARD: In accordance with the WR-ALC/LESBL ICE 02-001 QASP Directive and DFARS 201.602-2.

PERFORMANCE STEPS:
1. Monitor delivery and performance at the task order or site level.
2. Advise the contracting officer in all matters related to the specific task order(s).
3. Certify contractor performance using the contractor's certificate of engineering services rendered (CESR).
4. Order, inspect and accept contractor provided maintenance and IT support under the terms of the contract.
5. Notify contractor personnel of all local policy and procedures affecting performance at the site and provide all required operating instructions.
6. Interface with the site SSO for contractor personnel clearance actions including providing the compelling need actions requests.
7. Authorize contractor ID cards, as required.
8. Identify contractor personnel as mission and submit written notification to PCO and contractor ten working days prior to official assignment, as required.
9. Validate funds availability prior to authorization of all work.
10. Monitor contractor performance utilizing the contractors IMS on-line system.
11. Assess contractor performance in accordance with QASP and provide quarterly feedback to the SSLSM Program Office.
12. Maintain a surveillance folder or file for each task order.

REFERENCES:
1. Applicable technical manuals/publications

2. ICE2 Contract Maintenance Contract
3. MCO P4400.150E Consumer-Level Supply Policy Manual (Jun 99)
4. MCO P4790.2C MIMMS Field Procedures Manual (Jul 94)
5. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
6. Higher Headquarters Directives
7. COR Quick Reference Guide
8. WR-ALC/LESBL ICE 02-001 QASP Directive
9. Statement of Requirements Document
10. DFARS 201.602-2

2800-ACT-2301: Perform limited technical inspections on ground electronics equipment

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2874, 2887

GRADES: PVT, PFC, LCPL, CPL, SGT, SSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment, and a mission.

STANDARD: To determine the status of equipment in accordance with MCO 4790.2_, paragraph 3007.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Inventory equipment.
3. Connect equipment to TMDE, as required.
4. Ensure proper handling of static sensitive components/printed circuit cards.
5. Determine condition of equipment.
6. Determine modification status of equipment.
7. Determine extent and level of maintenance required to return equipment back to operational condition.
8. Document LTI, as required.
9. Perform LTI as part of acceptance and closeout procedures to include quality assurance checks.

REFERENCES:
1. Applicable technical manuals/publications
2. MCO P4790.2 MIMMS Field Procedures Manual
3. SL 1-2/3 Index of Authorized Publications in Stock
4. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
5. TM 9999-15/1 ESD Awareness Electro-Static Discharge

2800-ACT-2302: Deploy a field maintenance activity

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823, 2831, 2834, 2862, 2887

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment, a mission and personnel.

STANDARD: To implement task organized maintenance in support of MAGTF Operations in accordance with MCO P4790.2_, Appendix E.

PERFORMANCE STEPS:
1. Adhere to the safety requirements.
2. Prepare deploying personnel, as required.
3. Draft load plans for personnel and equipment.
4. Prepare equipment for embarkation.
5. Arrange for special material handling and equipment transportation.
6. Determine site requirements after considering: space requirements, terrain features, access routes, proximity to supported units and logistic support.
7. Determine power requirements.
8. Install the maintenance facility.
9. Liaise with supporting establishments.
10. Establish logistics and administrative procedures.
11. Provide deployed maintenance support.
12. Direct maintenance contact team actions.
13. Maintain security.

REFERENCES:
1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures

23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small

Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2800-ACT-2303: Determine organizational maintenance support requirements

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2831, 2834, 2862, 2887, 2891

GRADES: SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, an equipment list, a mission and personnel.

STANDARD: To ensure the continuity of maintenance services in accordance with MCO P4790.2_.

PERFORMANCE STEPS:
1. Review unit SOP.
2. Evaluate unit's support requirements, including: (class IX, contracted logistics support (CLS), MHE, transportation, supply, engineer, security, calibration and distribution).
3. Identify class IX requirements.
4. Identify contracted logistics support requirements.
5. Identify MHE requirements.
6. Identify transportation requirements.
7. Identify supply support requirements.
8. Identify engineer support requirement.
9. Identify security requirements.
10. Identify calibration support requirement.
11. Identify distribution requirements.
12. Identify higher and adjacent supporting units.
13. Submit support requirements.

REFERENCES:
1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan

7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control

and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2800-ACT-2304: Supervise maintenance actions

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2831, 2834, 2862, 2874, 2887

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: with the aid of references, equipment and maintenance personnel.

STANDARD: In accordance with MCO P4790.2B, Chapter 3 and MCO P4790.2B, Appendices F and G.

PERFORMANCE STEPS:
1. Supervise maintenance personnel.
2. Manage maintenance resources, e.g. CLS, comm-elect and warranty requirements.
3. Analyze data: basic statistical procedures (identify trends) and database/spreadsheet utilization in the analysis of information.
4. Control maintenance production.
5. Maintain reports and records.
6. Perform quality control/quality assurance during the active maintenance

phase.

REFERENCES:

1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration

44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2800-ACT-2305: Prepare organic equipment for embarkation

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2834, 2844, 2846, 2847, 2862, 2871, 2874, 2887

GRADES: CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment, a mission and personnel.

STANDARD: To maintain unit's ability to rapidly deploy in accordance with MCRP 4-11.3G.

PERFORMANCE STEPS:
1. Ensure SL-3 completeness of maintenance/maintenance support equipment.
2. Determine requirements for embarkation materials.
3. Ensure completion of tactical marking of maintenance/maintenance support equipment.
4. Prepare embarkation documents (packing and embark lists, EDL, etc.).
5. Ensure completion of weather/waterproofing of maintenance/maintenance support equipment.
6. Determine special lifting/handling requirements for maintenance/maintenance support equipment.
7. Determine special security requirements for maintenance/maintenance support equipment and COMSEC materials.
8. Determine hazardous material movement requirements.

REFERENCES:
1. MCRP 4-11.3G Unit Embarkation Handbook
2. MCO P4000.51A Automatic Identification Technology Policy Manual
3. MCO P4030.19H Preparing Hazardous Materials for Military Air Shipments
4. MCO 4631.10A Operational Support Airlift Management
5. CMR Consolidated Memorandum Report
6. UNIT SOP Unit's Standing Operating Procedures
7. Unit TO/E Table of Organization/Equipment

SUPPORT REQUIREMENTS:

MATERIAL: Distance Learning Products Available:
1. MCI 045C, The Logistics/Embarkation Specialist
2. MCI 047D, Introduction to Amphibious Embarkation

2800-ACT-2306: Verify the operation of an analog electronic circuit

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823, 2831, 2834, 2862, 2887

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, a complex analog electronic circuit, TMDE and tools.

STANDARD: To established circuit parameters.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Research and interpret data from the appropriate technical publications pertaining to the theory of operation for the equipment, associated components, ancillary devices and TMDE.
3. Interpret schematic diagrams for complex electronic circuits.
4. Identify possible faulty functions.
5. Perform input/output tests on possible faulty functions.

6. Record symptoms.
7. Localize the fault to a circuit.

REFERENCES:
1. Applicable technical manuals/publications
2. Electronic Devices and Circuits, Robert T. Paynter
3. Introductory Electric Circuits, Robert T. Paynter

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Oscilloscope
2. Scope Meter
3. MultiSim (circuit simulation software)

2800-ACT-2307: Verify the operation of a digital electronic circuit

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823, 2831, 2834, 2862, 2887

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, a complex digital electronic circuit, TMDE and tools.

STANDARD: To established circuit parameters.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Research and interpret data from the appropriate technical publications pertaining to the theory of operation for the equipment, associated components, ancillary devices and TMDE.
3. Interpret schematic diagrams for complex electronic circuits.
4. Identify possible faulty functions.
5. Perform input/output tests on possible faulty functions.
6. Record symptoms.

REFERENCES:
1. Applicable technical manuals/publications
2. Digital Electronics, A Practical Approach, William Kleitz
3. Digital Principles and Applications, Malvino and Leach

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Oscilloscope
2. Scope Meter
3. MultiSim (circuit simulation software)

2800-ACT-2308: Diagnose complex electronic circuits

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823, 2831, 2834, 2862, 2887

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, a complex electronic circuit, TMDE and tools.

STANDARD: To restore the circuit to established parameters.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Ensure proper handling of ESD sensitive components/printed circuit cards.
3. Research and interpret data from the appropriate technical publications pertaining to the circuit.
4. Interpret schematic diagrams for complex electronic circuits.
5. Calculate complex electronic circuit parameters.
6. Trace signal paths in complex electronic circuits.
7. Trace current/voltage paths in complex electronic circuits.
8. Measure circuit performance.
9. Analyze measured and calculated data.
10. Identify the fault.

REFERENCES:
1. Applicable technical manuals/publications
2. Electronic Devices and Circuits, Robert T. Paynter
3. Introductory Electric Circuits, Robert T. Paynter

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment
1. Oscilloscope
2. Scope Meter
3. MultiSim (circuit simulation software)

2800-ACT-2309: Splice fiber optic cable

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2823, 2831, 2834, 2844, 2846, 2847, 2862

GRADES: PVT, PFC, LCPL, CPL, SGT, SSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, an assigned maintenance area, faulty cable, TMDE and tools.

STANDARD: To operate with a signal loss no greater than three decibels from end to end.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Research applicable technical data.
3. Measure cable performance.
4. Isolate faulty area(s).
5. Requisition repair parts, as required.
6. Splice cable, as required.
7. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. Applicable technical manuals/publications
2. FIBER OPTICS Understanding Fiber Optics (4th Edition)
3. SL-3-10156A Optical Time Domain Reflectometer, MW9070NV
4. SL-3-10785A Fiber Optic Tool Kit, Model 0801-8500
5. SL-3-10785B Fiber Optic Tool Kit, Model 0801-8510
6. MI 10785A-OD/1 Fiber Optic Tool Kit Upgrade for Model 0801-8500
7. SL-3-10853A Test Station, Electrical, Electronic Equipment (Electro/Fiber Optic)
8. SL-3-11088A Splicing Kit, Fiber Optic Cable TK-S121
9. TM-09006A-10/1 Fiber Optic AN/GSC-54
10. TM-09006A-25&P/2 Fiber Optic Cable Systems
11. TM 11027A-15/4 Instruction Guide Fiber Optic Light Source (Photonix)
12. TM 11027A-15/5 Instruction Guide Fiber Optic Power Meter (Photonix)
13. TM 09008A/09009A-10/1 Fiber Optic Cable Assemblies CX-13295/G
14. TM 09008A/09009A-23&P2 Unit and Direct Support Maintenance Manual, CX-13295
15. TM 09010A-_ Test Set, Optical Communications AN/GSM-317
16. TM 10156A-14&P Optical Time Domain Reflectometer, MW9070NV

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment
1. Optical communications test set
2. Visual fiber optic fault finder
3. Optical Time Domain Reflector (OTDR)
4. Fiber optic repair kit

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This task applies to general fiber optic cable repair utilizing: mechanical fiber splice, fusion fiber splice or other specialized fiber splicing method.

2800-ACT-2310: Perform corrective maintenance on power supplies to the piece-part component level

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821, 2831, 2846, 2847, 2862
GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, an assigned maintenance area, designated faulty equipment, TMDE and tools.

STANDARD: To return equipment to condition code "A" as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Calculate circuit parameters.
5. Measure circuit performance.
6. Ensure proper handling of static sensitive components/printed circuit cards.
7. Isolate faulty components.
8. Perform alignments, as required.
9. Requisition parts, as required.
10. Remove/replace faulty components, as required.
11. Research authorized modification and technical instructions.
12. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. Applicable technical manuals/publications
2. Maintenance Float Catalog
3. SL 1-2/3 Index of Authorized Publications in Stock
4. SL-4 Repair, Maintenance, and Management Lists
5. TM 9999-15/1 ESD Awareness Electro-Static Discharge

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment
1. Oscilloscope
2. Multimeter
3. Power supply
4. Signal Generator
5. HYP-71 Auxiliary Power Supply
6. ASAPS-4 Power Supply
7. DC power converter
8. AC power converter

2800-ACT-2311: Perform limited corrective maintenance on communications security equipment associated with ground common communication systems

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2844, 2846, 2847

GRADES: PVT, PFC, LCPL, CPL, SGT
INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, an assigned maintenance area, designated faulty equipment, TMDE and tools.

STANDARD: To return equipment to condition code A as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Adhere to cryptographic security regulations.
3. Ensure proper handling of static sensitive components/printed circuit cards, as required.
4. Connect faulty equipment to special test equipment, as required.
5. Trace functional block diagrams, as required.
6. Isolate faulty line shop replaceable unit (SRU)/chassis mounted components as required.
7. Requisition repair part, as required.
8. Remove/replace faulty components, as required.
9. Restore equipment to a fully operational status by substitution of LRU, as required.
10. Evacuate inoperative equipment to higher echelon, as required.
11. Apply authorized modifications and technical instructions.
12. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. 29 CFR1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
2. Applicable technical manuals/publications
3. CMS-5 COMSEC Material System Policy & Procedures Manual
4. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
5. FEDLOG Federal Logistic Data
6. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
7. SL 1-2/3 Index of Authorized Publications in Stock
8. TM 9999-15/1 ESD Awareness Electro-Static Discharge

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. TSEC/KG-194A Trunk Encryption Device
2. TSEC/KY-57 Speech Security Equipment (VINSON)
3. Data Transfer Device
4. TSEC/KY-99 Advanced Narrowband Digital Voice Terminal (ANDVT/MINTERM)
5. STX-34 Test Set
6. KIV-7_ Bulk Encryption Device
7. HYP-57/TSEC Vehicular Power Adapter
8. HYX-57/TSEC Wireline Adapter
9. ST-58 Fill/Vunson/KG-84
10. RYQ-99 Maintenance Kit

2800-OPS-2401: Install Marine Corps Expeditionary Shelter System (MCESS) components for field use

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2831, 2844, 2846, 2847, 2871, 2887

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, an EMI maintenance shelter, a mission and tools.

STANDARD: In accordance with TM 5410-14/1, Chapter 2.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Prepare the site.
3. Position shelter.
4. Level shelter.
5. Anchor the shelter.
6. Ground the shelter.
7. Complex shelters, as required.
8. Service and inspect shelters.
9. Camouflage equipment.
10. Verify EMI procedures are adhered to.
11. Verify cable connections.
12. Verify antenna installation, as required.
13. Connect environmental control units, as required.
14. Apply power.
15. Verify equipment operation.
16. Provide local security.

REFERENCES:
1. 29 CFR1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
2. Applicable technical manuals/publications
3. MCO P5090.2A Environmental Compliance and Protection Manual
4. SL-3-09271A Shelter, 20FT., EMI/EMC
5. SL-3-09272A Shelter, 10FT., EMI/EMC
6. SL-3-09273A Shelter, 10FT., Rigid/EMC
7. SL-3-09281A Shelter, 20FT., Rigid/EMC
8. SL-3-08996A Shelter, Shelter Assembly, Knockdown
9. SL-3-09000A Shelter, Joining Corridor
10. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
11. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
12. TM 5410 14 1 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
13. TM 5411 14 P &2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
14. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety (Aug 91)
15. TM 9999-15/1 ESD Awareness Electro-Static Discharge

2800-OPS-2402: Manage maintenance production

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2891, 2874, 2823

GRADES: MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, Commander's guidance, an electronic maintenance unit, an assigned maintenance area and a mission.

STANDARD: In accordance with MCO P4790-2_, Chapter 3, pages 3-1 to 3-25; MCO P4790-2_, Chapter 4; and MCO P4790-2_, Appendix F.

PERFORMANCE STEPS:

1. Analyze maintenance phase productivity (acceptance, induction, active maintenance, closeout).
2. Analyze workload.
3. Determine maintenance requirements.
4. Establish maintenance priorities.
5. Establish maintenance functions (PMCS, CM, MODS, CAL).
6. Monitor maintenance cycle times and workflow.
7. Manage maintenance information.
8. Evaluate external analysis.
9. Determine inspection requirements.
10. Manage equipment recovery, evacuation, and disposition processes.
11. Perform maintenance management troubleshooting as required.

REFERENCES:

1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures

25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System

(MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2800-TRNG-2501: Manage training for ground electronics maintenance personnel

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823, 2831, 2834, 2862, 2874, 2887, 2891

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment, personnel, training records and the unit's training plan.

STANDARD: To ensure MOS sustainment training is being conducted in accordance with MCO P3500.72A and NAVMC 3500.6A.

PERFORMANCE STEPS:
1. Identify training strengths and weaknesses of unit personnel.
2. Establish training priorities: mission oriented training, skill progression training, skill sustainment training, and professional development training.
3. Devise training plan to increase skill level of personnel/unit: communication security, mission and organization of command, maintenance of files and logs, and troubleshooting.
4. Determine type and frequency of training to be conducted on an individual/unit basis.
5. Supervise required training.
6. Provide training, as required.
7. Provide supervision at all levels during conduct of training.
8. Evaluate skill levels attained against those established.
9. Document training, as required.

REFERENCES:
1. Applicable technical manuals/publications
2. MCO 1200.17 MOS Manual
3. NAVMC 3500.6A Occupational Field 2800 Ground Electronics Maintenance Training and Readiness Manual
4. MCO 1553.3A Unit Training Manual
5. MCO P3500.72 Marine Corps Ground Training & Readiness Program
6. MCO P4790.2C MIMMS Field Procedures Manual
7. MCRP 3-0A Unit Training Management Guide
8. MCRP 3-0B How to Conduct Training

9. MCWP 3-40.3 Communications and Information Systems
10. UNIT SOP Unit's Standing Operating Procedures
11. Higher Headquarters Directives
12. Unit Training Plan
13. MOS Roadmaps
14. TECOMO 1500.1
15. MOS Roadmap Program

2800 GROUND T&R MANUAL

CHAPTER 3

MOS 2802 INDIVIDUAL EVENTS

2800 GROUND T&R MANUAL

CHAPTER 3

MOS 2802 INDIVIDUAL EVENTS

3000. PURPOSE. This chapter contains individual training events for MOS 2802, Electronics Maintenance Officer.

3001. INDIVIDUAL SKILLS

1. Core skills are basic individual skills that make a Marine and qualify them for an MOS. They are the 1000 level skills introduced in the entry level training in the formal schools and refined in operational units.

2. Core Plus Skills are advanced individual skills that are environment, mission, rank or billet specific. They are the 2000 level skills introduced in the entry level managed on the job training in operational units and advanced formal schools training.

3002. EVENT CODING. Events in the T&R Manual are depicted with an 11 or 12 digit alphanumeric system, i.e. XXXX-XXXX-XXXX, utilizing the following methodology:

a. Field one - Each event starts with 28XX. 2800 indicates that the event is a core capability for all Marines within the occupational field. 2844 indicates the event is for 2844, Ground Communications Organizational Repairer, etc.

b. Field two - This field is alpha characters indicating a functional area. The functional areas for this chapter are listed below:

Functional Area	Field Name	Example
Maintenance Planning	PLAN	2844-PLAN-XXXX
Maintenance Administration	ADMN	2844-ADMN-XXXX
Maintenance Actions	ACT	2844-ACT-XXXX
Maintenance Operations	OPS	2844-OPS-XXXX
Maintenance Training	TRNG	2844-TRNG-XXXX

c. Field three - All individual events within T&R Manuals are either 1000-level events that are taught at MOS-producing formal schools or 2000-level events that are taught at advanced-level schools or are MOJT. The first digit indicates whether it is a core (1) or core plus (2) event.

The second digit indicates the associated field and the last two digits indicate the task number. 2303 indicates that it is a core plus task and it is the third task within the Maintenance Actions functional area for that MOS. This chapter contains both level events.

MOS	Field Name	Associated Field Number	Core/ Core Plus	Task	Example
2800	PLAN	101-199	2	1	2800-PLAN-2101
2871	ADMN	201-299	1	4	2871-ADMN-1201
2846	ACT	301-399	2	3	2846-ACT-2303
2821	OPS	401-499	1	2	2821-OPS-1401
2805	TRNG	501-599	2	1	2805-TRNG-2501

3003. INDEX OF 2000-LEVEL EVENTS

3004. 2000-LEVEL EVENTS

2802-PLAN-2101: Plan for the deployment of a maintenance unit

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: CAPT, MAJ

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, Commander's guidance, resources and a mission.

STANDARD: To provide task organized maintenance in support of MAGTF Operations in accordance with MCO P4790.2, Appendix E.

PERFORMANCE STEPS:
1. Review warning order.
2. Review Commander's guidance.
3. Review Table of Organization and Equipment
4. Identify support requirements.
5. Identify CLS and warranty requirements.
6. Establish class IX requirements.
7. Establish CLS spares requirements.
8. Submit embarkation requirements.
9. Provide input for Operational Plan.
10. Determine and submit power requirements.
11. Provide input for load plans for personnel and equipment.
12. Arrange for special material handling and transportation of equipment, as required.
13. Project site requirements.
14. Determine security/defense requirements.

REFERENCES:
1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System

17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps

Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2802-PLAN-2102: Perform duties of an Electronics Maintenance Officer for a Marine Expeditionary Force/Major Subordinate Command Headquarters

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: CAPT, MAJ, LTCOL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, Commander's guidance and a mission.

STANDARD: In accordance with MCWP 4-11.4.

PERFORMANCE STEPS:
1. Advise the Commander on the readiness and maintenance status of ground electronics equipment.
2. Advise the AC/S G-6 on the readiness and maintenance status of ground electronics equipment.
2. Coordinate with MCSC on the fielding and sustaining of ground electronics equipment.
3. Advise and facilitate MCLC on the maintenance/supply support and life-cycle management of ground electronics equipment.
4. Facilitate the AC/S G-4 and higher headquarters as the ground electronics equipment commodity manager.
5. Direct and facilitate appropriate unit inspections and training as required.
6. Coordinate with the 2800 Occupational Field sponsor and the monitor on the proper assignment of 2800 officers.

REFERENCES:
1. Applicable technical manuals/publications
2. MCO P4400.150E Consumer-Level Supply Policy Manual (Jun 99)
3. MCO P4790.2C MIMMS Field Procedures Manual (Jul 94)

4. MCWP 4-11.4 Maintenance Operations
5. TM 4700-15/1 Marine Corps Ground Equipment Record Procedures
6. Unit TO/E Table of Organization/Equipment
7. Higher Headquarters Directives

2802-PLAN-2103: Perform the duties of Program Manager, TMDE

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: LTCOL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references and when assigned to the billet.

STANDARD: To accomplish program objectives for development, production and sustainment to meet the user's operational needs as described in DOD Directives 5000.01 and 5000.02.

PERFORMANCE STEPS:
1. Review duties.
2. Report cost, schedule and performance data.
3. Manage fiscal requirements in the acquisition and support of TMDE.
4. Brief required personnel on TMDE and maintenance issues/challenges.
5. Ensure training requirements are established, defined and met.
6. Plan life-cycle sustainment strategy for TMDE procured.

REFERENCES:
1. Applicable technical manuals/publications
2. Higher Headquarters Directives
3. MCO 4105.2 Marine Corps Warranty Program
4. ICE2 Statement of Requirements Document
5. Contracting Officer Representative (COR) ICE2 Handbook
6. DoDD 5000.01 Defense Acquisition System
7. DoDD 5000.02 Defense Acquisition Regulations
8. MCO 4200.33 Contractor Logistics Support (CLS) for Ground Equipment, Ground Weapons Systems, Munitions, and Information Systems
9. MCO 4081.2 Performance Based Logistics (PBL)
10. MCO 5000.19 Marine Corps Systems Command
11. TM 4420-15/1 Lifecycle Logistics and the Material Fielding Process
12. MCO 4000.57 Total Life Cycle Management
13. MCO 4000.58 Marine Corps Logistics Command
14. CJCSI 3170.01 Joint Capabilities Integration Development System
15. CJCSM 3170.01 Operation of the Joint Capabilities Integration Development System
16. MCO 3900.15 Expeditionary Force Development System
17. Title 10 USC
18. MCO 5000.19 Marine Corps Systems Command
19. SECNAVINST 5000.2 Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System

20. SECNAVINST 4105.1 INDEPENDENT LOGISTICS ASSESSMENT (ILA) AND CERTIFICATION REQUIREMENTS
21. SECNAVINST 5420.188 ACQUISITION CATEGORY (ACAT) PROGRAM DECISION PROCESS

2802-PLAN-2104: Perform the duties of an Electronics Maintenance Management Officer for Installations & Logistics

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: MAJ

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, Commander's guidance and a mission.

STANDARD: In accordance with MCO 4000.57 paragraph 4(b), MCO P4790.2C_, Chapter 1 and MCO P4790.2C_, Appendix A.

PERFORMANCE STEPS:
1. Participate in the implementation and execution of program level TLCM for all communications-electronics equipment.
2. Advocate for the ground electronics field during Joint Capabilities Integration and Development System; Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities (DOTMLPF); DOTMLPF Working Group; Requirements Transition; System Acquisition, and Planning, Programming, Budgeting and Execution System processes.
3. Collaborate with stakeholders in assessing impact of new communication systems or equipment on Military Occupational Specialties (MOS) requirements.
4. Verify appropriateness of assigned tasks for the identified MOS and adequacy of structure.
5. Serve as the OccFld advocate for CBM+, Autonomic Logistics/Prognostics, Performance Based Logistics, Design-in Reliability, Maintainability, and Supportability, Direct Vendor Delivery, logistics footprint, depot maintenance, logistics operational architecture, and automated identification technology planning.
6. Participate as a member in the logistics assessment process.
7. Provide input for direct enterprise level readiness analysis and assessments.
8. Serve as the principal OccFld representative for lifecycle sustainment, capability development and acquisition processes.
9. Ensure logistics support of fielded equipment through integration into enterprise level logistics systems, to include supply and maintenance.

REFERENCES:
1. Applicable technical manuals/publications
2. Higher Headquarters Directives
3. MCO 4105.2 Marine Corps Warranty Program
4. ICE2 Statement of Requirements Document
5. Contracting Officer Representative (COR) ICE2 Handbook
6. DoDD 5000.01 Defense Acquisition System

7. DoDD 5000.02 Defense Acquisition Regulations
8. MCO 4200.33 Contractor Logistics Support (CLS) for Ground Equipment, Ground Weapons Systems, Munitions, and Information Systems
9. MCO 4081.2 Performance Based Logistics (PBL)
10. TM 4420-15/1 Lifecycle Logistics and the Material Fielding Process
11. MCO 4000.57 Total Life Cycle Management
12. MCO 4000.58 Marine Corps Logistics Command
13. CJCSI 3170.01 Joint Capabilities Integration Development System
14. CJCSM 3170.01 Operation of the Joint Capabilities Integration Development System
15. MCO 3900.15 Expeditionary Force Development System
16. Title 10 USC
17. MCO 5000.19 Marine Corps Systems Command
18. SECNAVINST 5000.2 Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System
19. SECNAVINST 4105.1 INDEPENDENT LOGISTICS ASSESSMENT (ILA) AND CERTIFICATION REQUIREMENTS
21. SECNAVINST 5420.188 ACQUISITION CATEGORY (ACAT) PROGRAM DECISION PROCESS

2802-PLAN-2105: Perform the duties of an Electronics Maintenance Requirements Officer

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: MAJ

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, Commander's guidance and a mission.

STANDARD: In accordance with the JCIDS process.

PERFORMANCE STEPS:
1. Review duties.
2. Review issues and policies.
3. Coordinate and manage the Marine Corps position on the operational requirements for communication-electronic maintenance related systems and maintenance aspects of other C4 systems.
4. Serve as the operating force sponsor and MCCDC liaison to MCSC in the matters of electronic maintenance and appropriate C4 operational requirements.
5. Coordinate with counterparts in other MCCDC divisions when C4 equipment requirements have implications for doctrine, training and force structure.
6. Participate in the development of concepts of employment for C4 operational requirements documents.
7. Assist in mission area analysis for mission areas impacted by communication-electronics maintenance.
8. Coordinate the staffing of Marine Corps and other service C4 requirements documents.

REFERENCES:
1. Applicable technical manuals/publications
2. Higher Headquarters Directives
3. MCO 4105.2 Marine Corps Warranty Program
4. ICE2 Statement of Requirements Document
5. Contracting Officer Representative (COR) ICE2 Handbook
6. DoDD 5000.01 Defense Acquisition System
7. DoDD 5000.02 Defense Acquisition Regulations
8. MCO 4200.33 Contractor Logistics Support (CLS) for Ground Equipment, Ground Weapons Systems, Munitions, and Information Systems
9. MCO 4081.2 Performance Based Logistics (PBL)
10. TM 4420-15/1 Lifecycle Logistics and the Material Fielding Process
11. MCO 4000.57 Total Life Cycle Management
12. MCO 4000.58 Marine Corps Logistics Command
13. CJCSI 3170.01 Joint Capabilities Integration Development System
14. CJCSM 3170.01 Operation of the Joint Capabilities Integration Development System
15. MCO 3900.15 Expeditionary Force Development System
16. Title 10 USC
17. MCO 5000.19 Marine Corps Systems Command
18. SECNAVINST 5000.2 Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System
20. SECNAVINST 4105.1 INDEPENDENT LOGISTICS ASSESSMENT (ILA) AND CERTIFICATION REQUIREMENTS
21. SECNAVINST 5420.188 ACQUISITION CATEGORY (ACAT) PROGRAM DECISION PROCESS

2802-PLAN-2106: Command a Training Company/Detachment

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: MAJ

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, a command, Commander's guidance and a table of organization and equipment.

STANDARD: To provide basically trained Marines in the organizational and intermediate maintenance of ground electronics equipment and to provide qualified maintainers and maintenance supervisors to the Operating Forces in accordance with MCO 1553.1_; MCO 1553.2_; and MCO 1553.5_.

PERFORMANCE STEPS:
1. Review present TO/E and policies/procedures.
2. Develop/revise policies and procedures, as required.
3. Direct the establishment/revision of formal courses, as required.
4. Manage formal student training.
5. Determine resource requirements to meet the current/future formal training requirements.
6. Review/submit programs of instructions and course descriptive data for formal training.

7. Review/approve course content review Board recommendations, as required.
8. Coordinate issues requiring approval of higher headquarters, as required.
9. Direct course/curriculum evaluation, as required.

REFERENCES:
1. Applicable Unit Policies and Procedures
2. MCO 1553.1B The Marine Corps Training and Education System
3. MCO 1553.2_ Management of Marine Corps Formal Schools and Training Detachments (Nov 03)
4. MCO 1553.5_ Marine Corps Training and Education Evaluation
5. NAVMC 3500.6 Ground Electronics Maintenance Training and Readiness Manual
6. SAT MANUAL Systems Approach to Training Manual
7. Unit TO/E Table of Organization/Equipment
8. Higher Headquarters Directives

2802-PLAN-2107: Sponsor the 2800 Occupational Field

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: LTCOL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references and when assigned to the billet.

STANDARD: In accordance with MCO 5311.11C.

PERFORMANCE STEPS:
1. Manage strengths/weaknesses and issues of individual MOSs in the 2800 OccFld.
2. Chair the C4 Maintenance Advisory Group.
3. Perform duties as principle staff advisor for ground electronics matters to the Director, C4.
4. Provide guidance to the officer and enlisted monitors for 2800 Marines.
5. Brief the promotion boards on 2800 Marines.
6. Provide expert C4 OccFld input, as required, to the T/O development and change process.
7. In coordination with DC, M&RA, advise CMC on all manpower related issues pertaining to the Ground Electronics Occupational Field.
8. Advise CMC on proposed training allocations by providing expert C4 Ground Electronics OccFld input, as required, and coordinating with Training and Education Command for C4 training.
9. Establish long-term goals and recommend policy that will guide ground communication-electronics maintenance planning efforts and maximize support for C4 systems into the future.
10. Identify and shape issues to be worked with Training and Education Command, Manpower and Reserve Affairs and Materiel Command.
11. Coordinate development and maintenance of strategic Manpower and Training Plans for the 28 Occupational Field.
12. Recommend training programs based on new fieldings and realignment of legacy systems.

13. Examine ways to reduce training time, without jeopardizing training standards and improvements to training.
14. Recommend maintenance policy and concepts, based on existing and emerging technologies and capabilities.
15. Respond to the needs of the supporting establishments and operational forces by drawing on the collective experience and knowledge of the C4 MAG membership and representatives from the C4 community to recommend ideas and solutions to meet communication-electronics maintenance support challenges and requirements.

REFERENCES:

1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support

38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2802-ADMN-2201: Allocate maintenance resources

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: CAPT, MAJ, LTCOL

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, Commander's guidance, resources and a mission.

STANDARD: To maintain equipment and personnel readiness, in accordance with MCO P4790.2_, Chapter 2 and MCO P3000.13D.

PERFORMANCE STEPS:
1. Review mission.
2. Review existing funds available.
3. Determine facility, personnel, and equipment requirements.
4. Determine maintenance, repair part and training funding requirements.
5. Oversee the execution of maintenance contracts.
6. Implement policy for the support of new equipment.
7. Develop cost estimates for projects, maintenance and training.
8. Develop/plan a budget based on future requirements.
9. Execute the approved budget.

REFERENCES:
1. Applicable technical manuals/publications
2. MCO P7100.8K Field Budget Guidance Manual
3. Current Budget Data
4. Maintenance Contracts
5. Material Fielding Plans
6. Program Objective Memorandums
7. TEEP

2802-ACT-2301: Command maintenance organizations

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2802

GRADES: CAPT; MAJ

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, a command, Commander's Intent and a table of organization and equipment.

STANDARD: In accordance with MCO P4790.2_, page 1-14 through 1-21 and the unit SOP.

PERFORMANCE STEPS:
1. Establish standards or procedures for performing a technical function.
2. Provide professionally trained and qualified personnel to perform a technical function.
3. Provide professional advice, guidance, or assistance.
4. Perform a technical function as a service to the command.

5. Implement policies and procedures.
6. Supervise personnel and equipment maintenance.

REFERENCES:

1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program

43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
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56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
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58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This task applies to when in command of an Electronics Maintenance Company (ELMACO), Reparables Management Company (RMC), or a Service Company.

2800 GROUND T&R MANUAL

CHAPTER 4

MOS 2805 INDIVIDUAL EVENTS

2800 GROUND T&R MANUAL

CHAPTER 4

MOS 2805 INDIVIDUAL EVENTS

4000. PURPOSE. This chapter contains individual training events for MOS 2805, Data/Communications Maintenance Officer.

4001. INDIVIDUAL SKILLS

1. Core skills are basic individual skills that make a Marine and qualify them for an MOS. They are the 1000 level skills introduced in the entry level training in the formal schools and refined in operational units.

2. Core Plus Skills are advanced individual skills that are environment, mission, rank or billet specific. They are the 2000 level skills introduced in the entry level managed on the job training in operational units and advanced formal schools training.

4002. EVENT CODING. Events in the T&R Manual are depicted with an 11 or 12 digit alphanumeric system, i.e. XXXX-XXXX-XXXX, utilizing the following methodology:

a. Field one - Each event starts with 28XX. 2800 indicates that the event is a core capability for all Marines within the occupational field. 2844 indicates the event is for 2844, Ground Communications Organizational Repairer, etc.

b. Field two - This field is alpha characters indicating a functional area. The functional areas for this chapter are listed below:

Functional Area	Field Name	Example
Maintenance Planning	PLAN	2844-PLAN-XXXX
Maintenance Administration	ADMN	2844-ADMN-XXXX
Maintenance Actions	ACT	2844-ACT-XXXX
Maintenance Operations	OPS	2844-OPS-XXXX
Maintenance Training	TRNG	2844-TRNG-XXXX

c. Field three - All individual events within T&R Manuals are either 1000-level events that are taught at MOS-producing formal schools or 2000-level events that are taught at advanced-level schools or are MOJT. The first digit indicates whether it is a core (1) or core plus (2) event.

The second digit indicates the associated field and the last two digits indicate the task number. 2303 indicates that it is a core plus task and it is the third task within the Maintenance Actions functional area for that MOS. This chapter contains both level events.

MOS	Field Name	Associated Field Number	Core/ Core Plus	Task	Example
2800	PLAN	101-199	2	1	2800-PLAN-2101
2871	ADMN	201-299	1	4	2871-ADMN-1201
2846	ACT	301-399	2	3	2846-ACT-2303
2821	OPS	401-499	1	2	2821-OPS-1401
2805	TRNG	501-599	2	1	2805-TRNG-2501

4003. INDEX OF 2000-LEVEL EVENTS

4004. 2000-LEVEL EVENTS

2805-PLAN-2101: Produce a maintenance SOP

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4, CWO-5

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, Commander's guidance and a table of organization and equipment.

STANDARD: To outline the implementation of maintenance policy and procedures in accordance with MCO P4790.2_, Appendix A.

PERFORMANCE STEPS:
1. Analyze mission, directives, policy guidance and references.
2. Outline and record: Command and Control relationships, training requirements and procedures, security (cryptographic, emission, physical and transmission), embarkation procedures, administrative/operational reports, ECCM and continuing actions of Marines.
3. Address the following: Allocation of maintenance training/performance time, shop operations, equipment that exceeds maintenance capabilities, evacuation of equipment, maintenance phase procedures, quality control, record keeping, reports, modifications, support and test equipment, desktops and turnovers, safety, performance recognition.
4. Submit for inclusion in unit's SOP.

REFERENCES:
1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual

21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics

Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2805-ADMN-2201: Direct internal ground electronics maintenance programs

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references and a maintenance unit.

STANDARD: To ensure that maintenance programs are initiated and managed per MCO P4790.2_.

PERFORMANCE STEPS:
1. Supervise the following programs: calibration/TMDE, publications, quality control, modification control, tool and equipment control, pre-expend bin, MIMMS, supply and product quality deficiency reporting.
2. Institute procedures for the following: validation and reconciliation, field operations, equipment accountability and availability, LTI procedures, deployment/retrograde procedures, readiness reporting, COMSEC maintenance and COMSEC awareness training and documentation.

REFERENCES:
1. MCO 4733.1B Marine Corps Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP) (Jun 99)
2. MCO P4400.150E Consumer-Level Supply Policy Manual (Jun 99)
3. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
4. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
5. UNIT SOP Unit's Standing Operating Procedures
6. Unit TO/E Table of Organization/Equipment

2805-ADMN-2202: Oversee requirements for participation in external maintenance support programs

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4, CWO-5

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, Commander's guidance, a mission statement and program reports.

STANDARD: To ensure that maintenance programs are initiated and managed per MCO P4790.2_.

PERFORMANCE STEPS:

1. Validate the following external support programs: MPS/FIE, Mission Essential Equipment, IROAN/R&R/WIR, Class IX, CLS, warranty coordination, corrosion prevention and control (CPAC), administrative deadline and administrative storage, FSMAO, depot master work schedules, data assurance team inspections, ELMP and DLMP.

REFERENCES:

1. UNIT SOP Unit's Standing Operating Procedures
2. Unit TO/E Table of Organization/Equipment
3. MCWP 4-24 Maintenance Operations
4. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
5. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
6. MCO 4400.16 Uniform Material Movement and Issue Priority System
7. MCO P4400.150 Consumer Level Supply Policy Manual
8. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
9. MCO 4400.192 Logistics Management Information System
10. MCO P4400.82F Regulated/Controlled Items Management Manual
11. MCO P4790.1 MIMMS Introduction Manual
12. MCO P4790.2 MIMMS Field Procedures Manual
13. TM 4700-15/1 Ground Equipment Record Procedures
14. DLA Customer Assistance Handbook
15. UM 4400-124 FMF SASSY Using Unit Procedures
16. UM 4400-60 Material Returns Program User's Manual
17. UM 4400-123 FMF SASSY Management Unit Procedures
18. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
19. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
20. MCO 4105.2 Marine Corps Warranty Program
21. ICE2 Statement of Requirements Document
22. Contracting Officer Representative (COR) ICE2 Handbook
23. MCO 4200.33 Contractor Logistics Support (CLS) for Ground Equipment, Ground Weapons Systems, Munitions, and Information Systems
24. MCO 4081.2 Performance Based Logistics (PBL)
25. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
26. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
27. MCO 2410.2 Electromagnetic Environmental Effects Control Program
28. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
29. TM 9999-15/1 Electrostatic Discharge Awareness

30. TM 9999-15/2 Electrostatic Discharge Awareness
31. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
32. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
33. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
34. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
35. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
36. TM 4795-12/1 Corrosion Prevention and Control
37. TM 4795-34/2 Corrosion Prevention and Control
38. TM 5410 14 1 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
39. TM 5411 14 P &2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
40. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
41. DODI 8523.01 Communications Security
42. DODI 8570.01-M Information Assurance Workforce

2805-ADMN-2203: Direct low density ground electronic maintenance shop procedures

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL**: 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, Commander's guidance, a ground electronic maintenance platoon/section, a mission statement and program reports.

STANDARD: To ensure regulated/controlled items are properly managed in accordance with MCO P4400.150_; MCO P4400.82; and MCO P4400.151.

PERFORMANCE STEPS:
1. Manage secondary reparables.
2. Review/validate the low density (LD) secondary reparable (SECREP) float.
3. Supervise item review/stockage computation.
4. Monitor redistribution of reparable issue points (RIP) assets.
5. Manage the materials return program.

REFERENCES:
1. MCO 3000.11_ Marine Corps Ground Equipment Resources Reporting
2. MCO 4733.1B Marine Corps Test, Measurement, and Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP) (Jun 99)
3. MCO P4400.150E Consumer-Level Supply Policy Manual (Jun 99)
4. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)

5. MCWP 4-24 Commander's Guide to Maintenance
6. UM 4400-124 Sassy Using Unit Procedures
7. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

2805-ADMN-2204: Prepare a budget

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4, CWO-5

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, Commander's guidance, maintenance contracts and personnel training requirements.

STANDARD: In accordance with MCO P7100.8_.

PERFORMANCE STEPS:
1. Review mission.
2. Determine operational and maintenance requirements.
3. Identify new project requirements.
4. Determine funding category (PMC or O&M).
5. Review maintenance contracts.
6. Determine costs for training personnel.
7. Review existing funds available.
8. Determine installation/construction dates for new projects.
9. Develop cost estimates for projects, maintenance, and training.
10. Develop/plan a budget based on preceding requirements.

2805-ACT-2301: Manage ground electronics maintenance

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, a maintenance unit, maintenance resources and a mission.

STANDARD: In accordance with MCO P4790.2_, page 1-19 through 1-20 and the unit SOP.

PERFORMANCE STEPS:
1. Provide technical advice to the Commander on commodity maintenance functions
2. Supervise maintenance/commodity operations.

3. Plan maintenance workload.
4. Schedule, direct, and supervise the care, inspection, and maintenance of the unit's equipment.
5. Conduct periodic equipment inspections.
6. Maintain staff responsibility for the operation and functioning of maintenance information systems.
7. Plan, organize, and coordinate the use of maintenance resources.
8. Coordinate repair parts support.
9. Analyze maintenance information.
10. Coordinate maintenance related programs (training, tools and support equipment, technical info, facilities, maintenance funding and contract maintenance).
11. Establish maintenance production and quality control programs.
12. Maintain staff responsibility for operations and functioning of calibration control, PMCS, modification control, and technical publication control programs.

REFERENCES:

1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment

(TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2805-ACT-2302: Brief the Commander on equipment readiness

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4, CWO-5

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, Commander's guidance and maintenance reports.

STANDARD: To provide a realistic portrayal of unit's ability to perform its assigned mission in accordance with MCBul 3000; MCO 3000.11_; and MCO 4400.16.

PERFORMANCE STEPS:
1. Review Commander's guidance.
2. Review MARES management reports
3. Identify MARES-tracked equipment excesses and deficiencies within the reporting unit.
4. Present an analysis of the effectiveness of the maintenance and supply systems.
5. Reflects information regarding the measure of the organization's equipment capability in terms of "S" and "R" ratings.
6. Provide an assessment of the unit's "MR" rating.
7. Evaluate overall equipment readiness posture.
8. Provide recommendations.

REFERENCES:

1. FMFM 3-1 Command and Staff Action
2. Maintenance Output reports
3. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
4. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
5. MCO 4400.16 Uniform Material Movement and Issue Priority System
6. MCO P4790.2C MIMMS Field Procedures Manual
7. MCWP 4-24 Commander's Guide to Maintenance
8. Unit TO/E Table of Organization/Equipment
9. Web based maintenance management tools

2805-OPS-2401: Direct the deployment of a field maintenance activity

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2805

GRADES: WO-1, CWO-2, CWO-3, CWO-4

INITIAL TRAINING SETTING: FORMAL

CONDITION: Provided equipment, a mission, and personnel.

STANDARD: To implement task organized maintenance in support of MAGTF operations, in accordance with MCO P4790.2_, Appendix E.

PERFORMANCE STEPS:

1. Adhere to safety requirements.
2. Verify security.
3. Conduct pre-deployment inspection.
4. Verify load plans.
5. Verify special material handling and equipment transportation.
6. Validate support requirements.
7. Verify repair parts and equipment requirements.
8. Establish maintenance contact teams.
9. Conduct site selection.

REFERENCES:

1. MCO 1200.17 Military Occupational Specialties Manual
2. 29 CFR 1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
3. Applicable technical manuals/publications
4. MCWP 3-40.3 Communications and Information Systems
5. MCWP 5-1 Marine Corps Planning Process
6. MPS Load Plan
7. Operational Order
8. UNIT SOP Unit's Standing Operating Procedures
9. Unit TO/E Table of Organization/Equipment
10. MCWP 4-24 Maintenance Operations
11. MCRP 4-11.3 Unit Embarkation Handbook
12. UM PLMS Publication Library Management System
13. MCO P5215.17 Marine Corps Technical Publications System
14. MCBul 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
15. MCO 3000.11 Marine Corps Automated Readiness Evaluation System
16. MCO 4400.16 Uniform Material Movement and Issue Priority System
17. MCO P4400.150 Consumer Level Supply Policy Manual
18. MCO P4400.151 Intermediate-Level Supply Management Policy Manual
19. MCO P4400.82F Regulated/Controlled Items Management Manual
20. MCO P4790.1 MIMMS Introduction Manual
21. MCO P4790.2 MIMMS Field Procedures Manual
22. TM 4700-15/1 Ground Equipment Record Procedures
23. DLA Customer Assistance Handbook
24. UM 4400-124 FMF SASSY Using Unit Procedures
25. UM 4400-60 Material Returns Program User's Manual
26. UM 4400-123 FMF SASSY Management Unit Procedures
27. UM 4790-5 MIMMS AIS, Field Maintenance Procedures
28. MCO 4855.10 Product Quality Deficiency Reporting (PQDR)
29. MCO 4105.2 Marine Corps Warranty Program
30. ICE2 Statement of Requirements Document
31. Contracting Officer Representative (COR) ICE2 Handbook
32. DoDD 4151.18 Maintenance of Military Material
33. MCO 4733.1 Marine Corps Test, Measurement, Diagnostic Equipment (TMDE) Calibration and Maintenance Program (CAMP)
34. TM 10510-OD/1 General Purpose Test Measurement and Diagnostic Equipment (TMDE) Listing (Including Ancillary Electronic Support Items and Tool Kits)
35. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools

36. TI 4733-15/1 Calibration Requirements Marine Corps Test, Measurement and Diagnostic Equipment Calibration and Maintenance
37. TI 4733-15/6 Test, Measurement and Diagnostic Equipment Calibration and Maintenance Support
38. TI 4733-15/7 Procedural Publication Index for Test, Measurement and Diagnostic Equipment Calibration and Maintenance Program
39. TI 4733-15/9 Radiac Instrument Calibration Requirements
40. TI 4733-15/10 Special Calibration of Torque Wrenches
41. TI 4733-15/11 Infantry Weapons Gauge Calibrations Program
42. 4733-15/12 Calibration Requirements for Thermistor Mounts/Power Sensors Marine Corps Calibration Program
43. TI 4733-15/21 Survey Instrument Calibration
44. TI 4733-35/5 Calibration Equipment Recommendations for the Marine Corps Calibration Program
45. TI 4733-35/8 Marine Corps Transfer Standards Program
46. TI 4733-35/23 Naval and Marine Corps Calibration Laboratory Audit/Certification Manual
47. TI 5820-25/22 Electromagnetic Environmental Effects Procedures for Installation of Communication Equipment on United States Marine Corps Platforms
48. MCO 2410.2 Electromagnetic Environmental Effects Control Program
49. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
50. TM 9999-15/1 Electrostatic Discharge Awareness
51. TM 9999-15/2 Electrostatic Discharge Awareness
52. SI-4400-15/5 Packaging/Handling/Storage and Transportation of ESD Sensitive Items
53. TI-4400-15/1A Packaging, Handling, and Transportation of ESD Items
54. TM 5895-45/1 Standard Miniature/2M Maintenance Practices for Electronic Assembly Repair
55. TM 2000.15/1 Brief Description of US Marine Corps Communication-Electronic Equipment
56. TM 2000.OD/2 Principle Technical Characteristics of U.S. Marine Corps Communication-Electronics Equipment
57. TM 4795-12/1 Corrosion Prevention and Control
58. TM 4795-34/2 Corrosion Prevention and Control
59. TM-5410-14/1 Intermediate Maintenance Instructions Electronics Maintenance Complex
60. TM 5411-14/1 Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) Operation and Maintenance Instructions
61. TM-5411-14/P&2 EMI Shelter (Marine Corps Expeditionary Shelter System (MCESS) (Small Shelter Family) 10-Foot Rigid General Purpose Shelter Operation and Maintenance (Instructions with Repair Parts List)
62. CNSS 4000 Communication Security (COMSEC) Maintenance and Maintenance Training
63. DODI 8523.01 Communications Security
64. DODI 8570.01-M Information Assurance Workforce Improvement Program
65. CMS-5 Communication Security Material System (CMS) Cryptographic Equipment Information/Guidance manual
66. Electronic Key Management System (EKMS 1)

2800 GROUND T&R MANUAL

CHAPTER 5

MOS 2821 INDIVIDUAL EVENTS

2800 GROUND T&R MANUAL

CHAPTER 5

MOS 2821 INDIVIDUAL EVENTS

5000. PURPOSE. This chapter contains individual training events for MOS 2821, Technical Controller Marine.

5001. INDIVIDUAL SKILLS

1. Core skills are basic individual skills that make a Marine and qualify them for an MOS. They are the 1000 level skills introduced in the entry level training in the formal schools and refined in operational units.

2. Core Plus Skills are advanced individual skills that are environment, mission, rank or billet specific. They are the 2000 level skills introduced in the entry level managed on the job training in operational units and advanced formal schools training.

5002. EVENT CODING. Events in the T&R Manual are depicted with an 11 or 12 digit alphanumeric system, i.e. XXXX-XXXX-XXXX, utilizing the following methodology:

a. Field one - Each event starts with 28XX. 2800 indicates that the event is a core capability for all Marines within the occupational field. 2844 indicates the event is for 2844, Ground Communications Organizational Repairer, etc.

b. Field two - This field is alpha characters indicating a functional area. The functional areas for this chapter are listed below:

Functional Area	Field Name	Example
Maintenance Planning	PLAN	2844-PLAN-XXXX
Maintenance Administration	ADMN	2844-ADMN-XXXX
Maintenance Actions	ACT	2844-ACT-XXXX
Maintenance Operations	OPS	2844-OPS-XXXX
Maintenance Training	TRNG	2844-TRNG-XXXX

c. Field three - All individual events within T&R Manuals are either 1000-level events that are taught at MOS-producing formal schools or 2000-level events that are taught at advanced-level schools or are MOJT.

The first digit indicates whether it is a core (1) or core plus (2) event. The second digit indicates the associated field and the last two digits indicate the task number. 2303 indicates that it is a core plus task and it is the third task within the Maintenance Actions functional area for that MOS. This chapter contains both level events.

MOS	Field Name	Associated Field Number	Core/ Core Plus	Task	Example
2800	PLAN	101-199	2	1	2800-PLAN-2101
2871	ADMN	201-299	1	4	2871-ADMN-1201
2846	ACT	301-399	2	3	2846-ACT-2303
2821	OPS	401-499	1	2	2821-OPS-1401
2805	TRNG	501-599	2	1	2805-TRNG-2501

5003. INDEX OF 1000-LEVEL EVENTS

5004. 1000-LEVEL EVENTS

2821-ACT-1301: Perform corrective maintenance on technical control facilities to the line replaceable unit (LRU)

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an assigned maintenance area, faulty equipment, TMDE and tools.

STANDARD: To return equipment to condition code A as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Adhere to cryptographic security regulations.
3. Research applicable technical data pertaining to faulty equipment.
4. Read schematic diagrams.
5. Ensure proper handling of static sensitive devices.
6. Measure circuit performance.
7. Trace signal paths.
8. Trace voltage paths.
9. Isolate faulty line replaceable unit(s).
10. Requisition repair parts as required.
11. Replace faulty LRU(s).
12. Apply authorized modification and technical instructions.
13. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. Applicable technical manuals/publications
2. CMS-5 COMSEC Material System Policy & Procedures Manual
3. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
4. FEDLOG Federal Logistic Data on Compact Disk
5. MCO P4790.1 Marine Corps Integrated Maintenance Management System (MIMMS) Manual
6. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
7. Maintenance Float Catalog Maintenance Float Catalog
8. SECNAVINST 5510.30 Information and Personnel Security Program
9. SECNAVINST 5510.36_ Dept of the Navy Information and Personnel Security Program Regulations
10. SL 1-2/3 Index of Authorized Publications in Stock
11. SL-4 Repair, Maintenance, and Management Lists
12. TM 9999-15/1 ESD Awareness Electro-Static Discharge
13. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Technical Control Facility (DTC, JECCS, DITS)
2. CAT-5 Cable Tester
3. ISDN Test Set
4. Digital Multimeter
5. Data Communication Analyzer
6. Oscilloscope
7. Breakout Box

MATERIAL: Distance Learning Products Available:
1. MCI 2820, Electronics Mathematics for Marines
2. MCI 287A, Introduction to Test Measurement and Diagnostic Equipment
3. Applicable CBTs from TMDE Branch

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilizing the common sense approach to maintenance, component level repair can be accomplished by this MOS if the technician possesses the required facilities, publications, skills, TMDE and tools. Training for this skill is normally provided by the 2M/ATE course.

2821-ACT-1302: Perform limited corrective maintenance on communication security equipment associated with technical control equipment

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, faulty equipment, TMDE and tools.

STANDARD: To return equipment to condition code A as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Adhere to cryptographic security regulations.
3. Ensure proper handling of static sensitive devices.
4. Trace block diagrams as required.
5. Isolate faulty line replaceable unit(s) (LRU)/components.
6. Requisition repair parts, as required.
7. Replace faulty components, as required.
8. Evacuate to depot maintenance activity, as required.
9. Apply authorized modification and technical instructions.
10. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. 29 CFR1910.1200 Title 29 Code of Federal Regulations, Hazard Communication
2. Applicable technical manuals/publications
3. CMS-5 COMSEC Material System Policy & Procedures Manual
4. DISA Circulars/Publications DISA Circulars/Publications
5. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
6. FEDLOG Federal Logistic Data on Compact Disk
7. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
8. SL 1-2/3 Index of Authorized Publications in Stock
9. TM 9999-15/1 ESD Awareness Electro-Static Discharge
10. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. KIV-19/19A Trunk Encryption Device
2. TSEC/KGX-93 AKDC
3. KIV-7HS/HSB Data Encryption Device
4. ST-58 Fill/Vinson/KG-84
5. TSEC/KG-82
6. Simple Key Loader (SKL)
7. TSEC/KG-194/194A Trunk Encryption Device
8. TSEC/KY-57 Speech Security Equipment (Vinson)
9. KY-68 Digital Secure Voice Terminal
10. TSEC/KYX-15A
11. AN/CYZ-10 V3 Data Transfer Device
12. TSEC/STX-34 Test Set
13. KIV-7M Line Encryption Device
14. KG-175/250 TACLANE Family

2821-OPS-1401: Install a technical control facility

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, equipment and an operations plan.

STANDARD: To establish a communications capability as outlined in Annex K of the Operations Order.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Verify power source.
3. Perform systems configuration to include cable/power connections.
4. Perform electromagnetic interference checks to include proper grounding, cable connections and power connections.
5. Perform power-up procedures as described in applicable technical manual.
6. Verify equipment operation.

REFERENCES:
1. Applicable technical manuals/publications
2. CMS-5 COMSEC Material System Policy & Procedures Manual
3. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
4. MCWP 3-40.3 Communications and Information Systems
5. Operational Order Operational Order
6. Programming Cut Sheets Programming Cut Sheets
7. SECNAVINST 5510.30 Information and Personnel Security Program
8. SECNAVINST 5510.36_ Dept of the Navy Information and Personnel Security Program Regulations
9. SL 1-2/3 Index of Authorized Publications in Stock
10. TM 09999-15/1 ESD Awareness
11. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety (Aug 91)

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Technical Control Facility (DTC, JECCS, DITS)
2. Power Source
3. Ground Tester

2821-OPS-1402: Conduct circuit/link restoration

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, a circuit/link outage, a communications network, TMDE and tools.

STANDARD: To re-establish a communications capability as outlined in Annex K of the Operations Order.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Coordinate with circuit users to determine status of terminal devices.
3. Ensure SYSCON/TECHCON is aware of circuit/link outage.
4. If there are multiple circuit/link outages, check with SYSCON/TECHCON for priority of restoration.
5. Conduct fault isolation procedures.
6. Coordinate restoration efforts with transmission system operators.
7. Condition circuits, as required.
8. Maintain log entries for all circuit/link actions.
9. Notify SYSCON/TECHCON with reason for outage and corrective actions taken.

REFERENCES:
1. Applicable technical manuals/publications
2. CJCSM 6231_ Manual for Employed Joint Communications

3. FM 24-16 Communication-Electronic Operations Orders, Records and Reports
4. MCWP 3-40.3 Communications and Information Systems
5. Operational Order
6. Programming Cut Sheets

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Oscilloscope
2. Analog Test Set
3. Cable Tester
4. Data Communication Analyzer
5. Digital Multimeter
6. Break-out Box
7. Associated Tools
8. Associated Communications Equipment
9. Loop back plugs

2821-OPS-1403: Coordinate activation/deactivation of communication circuits/links

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, equipment and an operations plan.

STANDARD: To establish a communications capability as outlined in Annex K of the Operations Order.

PERFORMANCE STEPS:
1. Verify circuit requirements with SYSCON/TECHCON.
2. Notify SYSCON/TECHCON on circuit/link status.
3. Verify incoming and outgoing signals for each circuit/link.
4. Coordinate and activate/deactivate circuits/links in prioritized fashion as dictated by SYSCON/TECHCON.
5. Validate circuit connectivity.
6. Maintain log entries on the activation/deactivation for all circuits and links.
7. Read/interpret COMSEC callout.

REFERENCES:
1. Applicable technical manuals/publications
2. CJCSM 6231_ Manual for Employed Joint Communications
3. FM 24-16 Communication-Electronic Operations Orders, Records and Reports
4. MCWP 3-40.3 Communications and Information Systems
5. Operational Order Operational Order
6. Programming Cut Sheets Programming Cut Sheets

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment: Associated Communication Systems

5005. INDEX OF 2000-LEVEL EVENTS

5006. 2000-LEVEL EVENTS

2821-PLAN-2101: Provide technical data for a regimental level communications plan

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821

GRADES: CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, equipment, a mission and personnel.

STANDARD: To establish a communications capability as outlined in Annex K of the Operations Order.

PERFORMANCE STEPS:
1. Assess communications systems capability.
2. Coordinate with elements associated with communications control.
3. Verify circuit and link priority with SYSCON.
4. Prepare associated technical control documents.

REFERENCES:
1. Applicable technical manuals/publications
2. CJCSM 6231_ Manual for Employed Joint Communications
3. FM 11-55 FM 11-55
4. MCWP 3-40.3 Communications and Information Systems
5. Operational Order

2821-ACT-2301: Perform certification procedures on cryptographic equipment associated with technical control facilities

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2821

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: With the aid of references, an assigned maintenance area, a certified KT-83, a KGX-93 and tools.

STANDARD: In accordance with KAM-407 and TM-11-5810-332-13, Appendix G.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Ensure proper handling of static sensitive components/printed circuit cards.
3. Connect equipment to be certified to special test equipment.

4. Perform certification procedures.
5. Ensure certification labels and stickers are placed on equipment, as required.
6. Evacuate to higher echelon, as required.
7. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:

1. Applicable Technical Publications
2. CMS-21 COMSEC Material System Policy & Procedures
3. CMS-5 COMSEC Material System Policy & Procedures Manual
4. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
5. SECNAVINST 5510.30 Information and Personnel Security Program
6. SECNAVINST 5510.36_ Dept of the Navy Information and Personnel Security Program Regulations
7. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:

1. TSEC/KGX-93 Automatic Key Distribution Center
2. KT-83

2800 GROUND T&R MANUAL

CHAPTER 6

MOS 2823 INDIVIDUAL EVENTS

2800 GROUND T&R MANUAL

CHAPTER 6

MOS 2823 INDIVIDUAL EVENTS

6000. PURPOSE. This chapter contains individual training events for MOS 2823, Technical Controller Chief.

6001. INDIVIDUAL SKILLS

1. Core skills are basic individual skills that make a Marine and qualify them for an MOS. They are the 1000 level skills introduced in the entry level training in the formal schools and refined in operational units.

2. Core Plus Skills are advanced individual skills that are environment, mission, rank or billet specific. They are the 2000 level skills introduced in the entry level managed on the job training in operational units and advanced formal schools training.

6002. EVENT CODING. Events in the T&R Manual are depicted with an 11 or 12 digit alphanumeric system, i.e. XXXX-XXXX-XXXX, utilizing the following methodology:

a. Field one - Each event starts with 28XX. 2800 indicates that the event is a core capability for all Marines within the occupational field. 2844 indicates the event is for 2844, Ground Communications Organizational Repairer, etc.

b. Field two - This field is alpha characters indicating a functional area. The functional areas for this chapter are listed below:

Functional Area	Field Name	Example
Maintenance Planning	PLAN	2844-PLAN-XXXX
Maintenance Administration	ADMN	2844-ADMN-XXXX
Maintenance Actions	ACT	2844-ACT-XXXX
Maintenance Operations	OPS	2844-OPS-XXXX
Maintenance Training	TRNG	2844-TRNG-XXXX

c. Field three - All individual events within T&R Manuals are either 1000-level events that are taught at MOS-producing formal schools or 2000-level events that are taught at advanced-level schools or are MOJT. The first digit indicates whether it is a core (1) or core plus (2) event.

The second digit indicates the associated field and the last two digits indicate the task number. 2303 indicates that it is a core plus task and it is the third task within the Maintenance Actions functional area for that MOS. This chapter contains both level events.

MOS	Field Name	Associated Field Number	Core/ Core Plus	Task	Example
2800	PLAN	101-199	2	1	2800-PLAN-2101
2871	ADMN	201-299	1	4	2871-ADMN-1201
2846	ACT	301-399	2	3	2846-ACT-2303
2821	OPS	401-499	1	2	2821-OPS-1401
2805	TRNG	501-599	2	1	2805-TRNG-2501

6003. INDEX OF 2000-LEVEL EVENTS

6004. 2000-LEVEL EVENTS

2823-PLAN-2101: Develop detailed system level data for a MAGTF or Joint level communications plan

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, Commander's guidance, equipment, a mission and personnel.

STANDARD: In accordance with MCRP 3-11 and CJCSM 6231 series.

PERFORMANCE STEPS:
1. Assess adjacent unit's communication capabilities and requirements for integration and implementation.
2. Assess higher unit's communication capabilities and requirements for integration and implementation.
3. Assess supported unit's communication capabilities and requirements for integration and implementation.
4. Draft required technical data for the communication plan.
5. Coordinate with external agencies and elements associated with Communications Control.
6. Coordinate the assignment of designations for transmission links and circuits.
7. Identify technical deficiencies in the communications plan, as required.
8. Review required messages or requests prior to submission.
9. Verify circuit and link priority with external agencies.
10. Verify circuit requirements with subscribers.

REFERENCES:
1. Applicable technical manuals/publications
2. CJCSM 6231_ Manual for Employed Joint Communications
3. DoD 8570.01-M Information Assurance Workforce Improvement Program
4. MCWP 3-40.3 Communications and Information Systems
5. Operational Order

2823-ACT-2301: Restore complex circuits/links

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, a communication network, designated circuit outage, TMDE and tools.

STANDARD: To re-establish a communications capability as outlined in Annex K of the Operations Order.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Analyze network status.
3. Assess critical communication architectural requirements.
4. Utilize network management tools to ensure quality of service and efficiency of the network.
5. Re-route or activate backup circuit/links according to the priority dictated by SYSCON/TECHCON.
6. Re-engineer complex circuit/links accommodating changes in the communication architectural requirements.

REFERENCES:
1. Applicable technical manuals/publications
2. DoD 8570.01-M Information Assurance Workforce Improvement Program
3. Operational Order
4. Programming Cut Sheets

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Technical Control Facility (DTC, JECCS, DITS)
2. Analog Test Set
3. Data Communication Analyzer
4. Digital Multimeter
5. Break-out Box
6. Associated Tools
7. Associated Communications Equipment
8. Loop back plugs
9. Oscilloscope

MATERIAL: Distance Learning Products Available:
1. MCI 286G, Fundamentals of Digital Logic
2. MCI 287A, Introduction to Test Measurement and Diagnostic Equipment

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2823-ACT-2302: Perform advanced corrective maintenance on technical control facilities to the piece-part component level

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an assigned maintenance area, designated faulty equipment, TMDE and tools.

STANDARD: To return equipment to condition code A as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:

1. Adhere to safety requirements.
2. Adhere to cryptographic security regulations.
3. Research applicable technical data pertaining to faulty equipment.
4. Identify corrupted or incompatible software versions.
5. Reload/restore appropriate version of software.
6. Read schematic diagrams.
7. Ensure proper handling of static sensitive components/printed circuit cards.
8. Measure circuit performance.
9. Trace signal paths.
10. Trace current/voltage paths.
11. Isolate faulty chassis mounted components.
12. Replace faulty chassis mounted components.
13. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:

1. Applicable technical manuals/publications
2. CMS-5 COMSEC Material System Policy & Procedures Manual
3. DoD 8570.01-M Information Assurance Workforce Improvement Program
4. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
5. FEDLOG Federal Logistic Data
6. MCO P4790.1 Marine Corps Integrated Maintenance Management System (MIMMS) Manual
7. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
8. Maintenance Float Catalog Maintenance Float Catalog
9. SECNAVINST 5510.30 Information and Personnel Security Program
10. SECNAVINST 5510.36_ Dept of the Navy Information and Personnel Security Program Regulations
11. SL 1-2/3 Index of Authorized Publications in Stock
12. SL-4 Repair, Maintenance, and Management Lists
13. TM 9999-15/1 ESD Awareness Electro-Static Discharge
14. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:

1. Technical Control Facility (DTC, JECCS, DITS)
2. Oscilloscope
3. Analog Test Set
4. Data Communication Analyzer
5. Digital Multimeter
6. Break-out Box
7. Associated Tools
8. Associated Communications Equipment
9. Loop back plugs

MATERIAL: Distance Learning Products Available:

1. MCI 2820, Electronics Mathematics for Marines
2. MCI 286G, Fundamentals of Digital Logic
3. MCI 287A, Introduction to Test Measurement and Diagnostic Equipment

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilizing the common sense approach to maintenance, component level repair can be accomplished by this MOS if the technician possesses the required facilities, publications, skills, TMDE and tools. Training for this skill is normally provided by the 2M/ATE course.

2823-ACT-2303: Maintain the quality of service of a network

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an assigned maintenance area, designated circuit requirements and network management tools.

STANDARD: To maintain network operations as outlined in Annex K of the Operations Order.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Adhere to cryptographic security regulations.
3. Research applicable technical data pertaining to faulty equipment.
4. Read architectural diagrams.
5. Measure circuit performance.
6. Trace signal paths.
7. Assess and evaluate the efficiency of the configured network.
8. Utilize network management tools to improve quality of service.

REFERENCES:
1. Applicable technical manuals/publications
2. CMS-5 COMSEC Material System Policy & Procedures Manual
3. DoD 8570.01-M Information Assurance Workforce Improvement Program
4. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
5. FEDLOG Federal Logistic Data
6. MCO P4790.1 Marine Corps Integrated Maintenance Management System (MIMMS) Manual
7. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
8. Maintenance Float Catalog Maintenance Float Catalog
9. SECNAVINST 5510.30 Information and Personnel Security Program
10. SECNAVINST 5510.36_ Dept of the Navy Information and Personnel Security Program Regulations
11. SL 1-2/3 Index of Authorized Publications in Stock
12. SL-4 Repair, Maintenance, and Management Lists
13. TM 9999-15/1 ESD Awareness Electro-Static Discharge
14. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Technical Control Facility (DTC, JECCS, DITS)
2. Oscilloscope
3. Analog Test Set
4. Data Communication Analyzer
5. Digital Multimeter
6. Break-out Box
7. Associated Tools
8. Associated Communications Equipment
9. Loop back plugs
10. Network Monitoring Tools

MATERIAL: Distance Learning Products Available:
1. MCI 2820, Electronics Mathematics for Marines
2. MCI 286G, Fundamentals of Digital Logic
3. MCI 287A, Introduction to Test Measurement and Diagnostic Equipment

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2823-OPS-2401: Coordinate activation/deactivation of communications circuits/links connecting to the Defense Information Services Agency

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2823

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, equipment and an operational plan.

STANDARD: To maintain system operations in accordance with Annex K of the Operations Order.

PERFORMANCE STEPS:
1. Verify circuit parameters with DISA.
2. Update SYSCON/TECHCON continually throughout installation of communications system.
3. Verify correct incoming and outgoing signaling for each circuit.
4. Coordinate activation of circuits once communications links test reliable as prioritized by SYSCON/TECHCON.
5. Coordinate deactivation of circuits upon completion of communications requirements as prioritized by SYSCON/TECHCON.
6. Maintain records on activation/deactivation of links and circuits.

REFERENCES:
1. Applicable technical manuals/publications
2. CJCSM 6231_ Manual for Employed Joint Communications
3. DISA Circulars/Publications DISA Circulars/Publications
4. DoD 8570.01-M Information Assurance Workforce Improvement Program
5. FM 24-16 Communication-Electronic Operations Orders, Records and Reports
6. MCWP 3-40.3 Communications and Information Systems

7. Operational Order
8. Programming Cut Sheets

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment: Associated Communication Systems

2800 GROUND T&R MANUAL

CHAPTER 7

MOS 2831 INDIVIDUAL EVENTS

2800 GROUND T&R MANUAL

CHAPTER 7

MOS 2831 INDIVIDUAL EVENTS

7000. PURPOSE. This chapter contains individual training events for MOS 2831, AN/TRC-170 Technician.

7001. INDIVIDUAL SKILLS

1. Core skills are basic individual skills that make a Marine and qualify them for an MOS. They are the 1000 level skills introduced in the entry level training in the formal schools and refined in operational units.

2. Core Plus Skills are advanced individual skills that are environment, mission, rank or billet specific. They are the 2000 level skills introduced in the entry level managed on the job training in operational units and advanced formal schools training.

7002. EVENT CODING. Events in the T&R Manual are depicted with an 11 or 12 digit alphanumeric system, i.e. XXXX-XXXX-XXXX, utilizing the following methodology:

a. Field one - Each event starts with 28XX. 2800 indicates that the event is a core capability for all Marines within the occupational field. 2844 indicates the event is for 2844, Ground Communications Organizational Repairer, etc.

b. Field two - This field is alpha characters indicating a functional area. The functional areas for this chapter are listed below:

Functional Area	Field Name	Example
Maintenance Planning	PLAN	2844-PLAN-XXXX
Maintenance Administration	ADMN	2844-ADMN-XXXX
Maintenance Actions	ACT	2844-ACT-XXXX
Maintenance Operations	OPS	2844-OPS-XXXX
Maintenance Training	TRNG	2844-TRNG-XXXX

c. Field three - All individual events within T&R Manuals are either 1000-level events that are taught at MOS-producing formal schools or 2000-level events that are taught at advanced-level schools or are MOJT. The first digit indicates whether it is a core (1) or core plus (2) event.

The second digit indicates the associated field and the last two digits indicate the task number. 2303 indicates that it is a core plus task and it is the third task within the Maintenance Actions functional area for that MOS. This chapter contains both level events.

MOS	Field Name	Associated Field Number	Core/ Core Plus	Task	Example
2800	PLAN	101-199	2	1	2800-PLAN-2101
2871	ADMN	201-299	1	4	2871-ADMN-1201
2846	ACT	301-399	2	3	2846-ACT-2303
2821	OPS	401-499	1	2	2821-OPS-1401
2805	TRNG	501-599	2	1	2805-TRNG-2501

7003. INDEX OF 1000-LEVEL EVENTS

7004. 1000-LEVEL EVENTS

2831-ACT-1301: Perform corrective maintenance on digital wideband transmission systems to the line replaceable unit (LRU) level

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2831

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an assigned maintenance area, designated faulty equipment, TMDE and tools.

STANDARD: To return equipment to condition code A as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Calculate basic circuit parameters.
5. Ensure proper handling of static sensitive components/printed circuit cards.
6. Measure circuit performance.
7. Perform alignments, as required.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Isolate faulty line replaceable unit (LRU), as required.
11. Requisition repair parts, as required.
12. Remove/replace faulty LRU/SRU.
13. Apply authorized modifications and technical instructions.
14. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. Applicable technical manuals/publications
2. FEDLOG Federal Logistic Data
3. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
4. SL 1-2/3 Index of Authorized Publications in Stock
5. SL-4 Repair, Maintenance, and Management Lists
6. TM 9999-15/1 ESD Awareness Electro-Static Discharge
7. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Oscilloscope
2. Multimeter
3. Signal generator
4. Power supply
5. Digital wideband transmission system

6. Data analyzer
7. Spectrum analyzer
8. Frequency counter
9. Direction coupler

2831-ACT-1302: Perform limited corrective maintenance on communication security equipment used in digital wideband transmission systems

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2831

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an assigned maintenance area, faulty COMSEC equipment, spare kits, TMDE and tools.

STANDARD: To return equipment to condition code A as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Adhere to cryptographic security regulations.
3. Connect faulty equipment to special test equipment.
4. Ensure proper handling of static sensitive components/printed circuit cards.
5. Trace functional block diagrams.
6. Isolate fault to the LRU/chassis mounted components.
7. Requisition repair parts, as required.
8. Remove/replace faulty components.
9. Evacuate to higher echelon, as required.
10. Research modifications both mandatory and optional.
11. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. Applicable technical manuals/publications
2. CMS-5 COMSEC Material System Policy & Procedures Manual
3. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
4. FEDLOG Federal Logistic Data
5. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
6. SECNAVINST 5510.30 Information and Personnel Security Program
7. SECNAVINST 5510.36_ Dept of the Navy Information and Personnel Security Program Regulations
8. TM 9999-15/1 ESD Awareness Electro-Static Discharge
9. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. TSEC/194/194A trunk encryption device
2. TSEC/KY-58 speech security equipment (VINSON)

2831-ACT-1303: Perform corrective maintenance on the AN/TRC-170 to the piece-part component level

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2831

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, an assigned maintenance area, designated faulty equipment, TMDE and tools.

STANDARD: To return equipment to condition code A as defined in UM 4400-124, paragraph 4, page 4-22.

PERFORMANCE STEPS:
1. Adhere to safety requirements.
2. Research applicable technical data pertaining to faulty equipment.
3. Read schematic diagrams.
4. Calculate complex circuit parameters.
5. Ensure proper handling of static sensitive components/printed circuit cards.
6. Measure complex circuit performance.
7. Perform alignments.
8. Trace signal paths.
9. Trace current/voltage paths.
10. Identify faulty component(s).
11. Requisition parts, as required.
12. Remove/replace faulty component(s).
13. Apply authorized modifications and technical instructions.
14. Perform maintenance closeout procedures to include quality assurance checks.

REFERENCES:
1. Applicable technical manuals/publications
2. FEDLOG Federal Logistic Data
3. MCO P4790.2C MIMMS Field Procedures Manual (JUL 94)
4. SL 1-2/3 Index of Authorized Publications in Stock
5. SL-4 Repair, Maintenance, and Management Lists
6. TM 9999-15/1 ESD Awareness Electro-Static Discharge
7. UM 4790-5 MIMMS AIS, Field Maintenance Procedures

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Semiconductor device test set

2. Oscilloscope
3. Multimeter
4. Signal generator
5. Power supply
6. AN/USM-657 (V2) Third Echelon Test Set
7. Automated test equipment
8. AN/TRC-170 radio terminal set
9. Data analyzer
10. Spectrum analyzer
11. Frequency counter
12. AN/USM-674
13. AN/PSM-105
14. Directional coupler

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilizing the common sense approach to maintenance, component level repair can be accomplished by this MOS if the technician possesses the required facilities, publications, skills, TMDE and tools. Training for this skill is normally provided by the 2M/ATE course.

2831-OPS-1401: Provide technical assistance during the installation of digital wideband transmission systems

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 12 months

MOS PERFORMING: 2831

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: With the aid of references, equipment, a mission and TMDE.

STANDARD: To ensure the AN/TRC-170 is installed and operates in accordance with TM -08658A-14/1 volumes 1, 2 and 3.

PERFORMANCE STEPS:
1. Verify equipment is properly grounded.
2. Verify power source.
3. Verify antenna installation.
4. Verify remote capabilities, as required.
5. Verify COMSEC connection, as required.
6. Verify equipment operation (configuration and programming).
7. Verify equipment operating procedures to include COMSEC.
8. Perform electromagnetic interference troubleshooting.
9. Provide technical assistance to correct discrepancies, as required.

REFERENCES:
1. Applicable technical manuals/publications
2. CMS-5 COMSEC Material System Policy & Procedures Manual
3. EKMS-1_ CMS Policy and Procedures for Navy EKMS Tiers 2 & 3
4. Operational Order

5. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety (Aug 91)
6. TM 9999-15/1 ESD Awareness Electro-Static Discharge

SUPPORT REQUIREMENTS:

EQUIPMENT: Support Equipment:
1. Oscilloscope
2. Multimeter
3. Signal generator
4. Power supply
5. Digital wideband transmission systems
6. Data analyzer
7. Spectrum analyzer
8. Frequency counter