NAVMC 3500.117

From: Commandant of the Marine Corps
To: Distribution List

Subj: MARINE WING SUPPORT SQUADRON TRAINING AND READINESS MANUAL

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

Encl: (1) MWSS T&R Manual

1. Purpose. Per reference (a), this Training and Readiness (T&R) Manual, contained in enclosure (1), establishes training standards, regulations, and policies regarding the training of Marines and assigned Navy personnel in Marine Wing Support Squadrons.

2. Scope

   a. The Core Capability Mission Essential Task List in this manual is used in the Defense Readiness Reporting System (DRRS) for assessment and reporting of unit readiness. Units achieve training readiness for reporting in DRRS by gaining and sustaining proficiency in the training events in this manual at both the collective (unit) and individual levels.

   b. Per reference (b), commanders will conduct an internal assessment of the unit's ability to execute its mission and develop long-, mid-, and short-range training plans to sustain proficiency and correct deficiencies. Training plans will incorporate these events to standardize training and provide objective assessment of progress toward attaining combat readiness. Commanders will keep records at the unit and individual levels to record training achievements, identify training gaps, and document objective assessments of readiness associated with training Marines and assigned Navy personnel. 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.

   c. 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 provides career-progression.
training in the events designated for initial training in the formal school environment.

3. **Information.** Commanding General (CG), Training and Education Command (TECOM) will update this T&R Manual as necessary to provide current and relevant training standards to commanders. All questions pertaining to the Marine Corps Ground T&R Program and Unit Training Management should be directed to: CG, TECOM, Marine Air Ground Task Force Training and Education Standards Division (C 466), 1019 Elliot Road, Quantico, Virginia 22134.

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

5. **Certification.** Reviewed and approved this date.

T. M. MURRAY
By direction

Distribution: PCN 10031983800
LOCATOR SHEET

Subj: MARINE WING SUPPORT SQUADRON TRAINING AND READINESS MANUAL

Location: ____________________________________________________________

(Indicate location(s) of copy(ies) of this Manual.)
RECORD OF CHANGES

Log completed change action as indicated.

<table>
<thead>
<tr>
<th>Change Number</th>
<th>Date of Change</th>
<th>Date Entered</th>
<th>Signature of Person Incorporating Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>OVERVIEW</th>
<th>MISSION ESSENTIAL TASKS MATRIX</th>
<th>COLLECTIVE EVENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>OVERVIEW</td>
<td>MISSION ESSENTIAL TASKS MATRIX</td>
<td>COLLECTIVE EVENTS</td>
</tr>
<tr>
<td>2</td>
<td>MISSION ESSENTIAL TASKS MATRIX</td>
<td>COLLECTIVE EVENTS</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>COLLECTIVE EVENTS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>APPENDICES</th>
<th>ACRONYMS AND ABBREVIATIONS</th>
<th>TERMS AND DEFINITIONS</th>
<th>REFERENCES</th>
<th>CLASS V ALLOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ACRONYMS AND ABBREVIATIONS</td>
<td>TERMS AND DEFINITIONS</td>
<td>REFERENCES</td>
<td>CLASS V ALLOCATION</td>
</tr>
<tr>
<td>B</td>
<td>TERMS AND DEFINITIONS</td>
<td>REFERENCES</td>
<td>CLASS V ALLOCATION</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>REFERENCES</td>
<td>CLASS V ALLOCATION</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>CLASS V ALLOCATION</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Enclosure (1)
## CHAPTER 1
### OVERVIEW

<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTRODUCTION</td>
<td>1-2</td>
</tr>
<tr>
<td>UNIT TRAINING</td>
<td>1-2</td>
</tr>
<tr>
<td>UNIT TRAINING MANAGEMENT</td>
<td>1-3</td>
</tr>
<tr>
<td>SUSTAINMENT AND EVALUATION OF TRAINING</td>
<td>1-3</td>
</tr>
<tr>
<td>ORGANIZATION</td>
<td>1-4</td>
</tr>
<tr>
<td>T&amp;R EVENT CODING</td>
<td>1-4</td>
</tr>
<tr>
<td>COMBAT READINESS PERCENTAGE (CRP)</td>
<td>1-6</td>
</tr>
<tr>
<td>CRP CALCULATION</td>
<td>1-7</td>
</tr>
<tr>
<td>T&amp;R EVENT COMPOSITION</td>
<td>1-7</td>
</tr>
<tr>
<td>CHEMICAL BIOLOGICAL RADIOLOGICAL NUCLEAR (CBRN) TRAINING</td>
<td>1-12</td>
</tr>
<tr>
<td>NIGHT TRAINING</td>
<td>1-12</td>
</tr>
<tr>
<td>OPERATIONAL RISK MANAGEMENT (ORM)</td>
<td>1-13</td>
</tr>
<tr>
<td>MARINE CORPS GROUND T&amp;R PROGRAM</td>
<td>1-13</td>
</tr>
</tbody>
</table>
1000. INTRODUCTION

1. The T&R Program is the 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 List(s) (METLs) for ground communities derived from the Marine Corps Task List (MCTL). This T&R Manual is built around these METLs and other related Marine Corps Tasks (MCT). All events contained in the manual relate directly to these METLs and MCTs. 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).

3. The T&R Manual is designed for use by unit commanders to determine pre-deployment training requirements in preparation for training and for Formal Learning Centers (FLCs) and Training Detachments to create courses of instruction. This directive focuses on individual and collective tasks performed by operating forces (OPFOR) units and supervised by personnel in the performance of unit Mission Essential Tasks (METs).

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 METL. However, commanders will adjust their training focus to support METLs associated with a major Operational Plan (OPLAN)/Contingency Plan (CONPLAN) or named operation as designated by their higher commander and reported accordingly in the 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 (b), (e) and (f).

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. The Intelligence T&R Manual is comprised of 20 chapters and 6 appendices. Chapter 1 is an overview of the Ground T&R Program. Chapter 2 lists the Intelligence Battalion Core METs, which are used as part of the DRRS. Chapter 3 contains collective events. Chapter 4 begins the chapters that capture individual events specific to a particular MOS and/or billet, as noted. Chapters 5 – 20 contain additional individual events. Appendix A contains acronyms and Appendix B contains terms and definitions. Additional appendices are noted in the table of contents.

1005. T&R EVENT CODING. An event contained within a T&R Manual is an individual or collective training standard. This section explains each of the components of a T&R event. These items will be included in all of the events in each T&R Manual. Community-based T&R Manuals may have several additional components not found in unit-based T&R Manuals. The event condition, event title (behavior) and event standard should be read together as a grammatical sentence.

1. Event Code. The event code is an up to 4-4-4 alphanumeric character set:
a. First up to 4 characters indicate MOS or Community (e.g., 0321, 1812 or INTL)

b. Second up to 4 characters indicate functional or duty area (e.g. DEF, FSPT, MVMT, etc.)

c. Third 4 characters indicate the unit size and supported unit, if applicable (1000 through 9000), and sequence. Figure 1-1 shows the relationship of unit size to event code. NOTE: The titles for the various echelons are for example only, and are not exclusive. For example: 4000-level events are appropriate for Section-level events as noted, but also for Squad-level events.

<table>
<thead>
<tr>
<th>Individual Formal School Training</th>
<th>Individual Training &amp; Career Progression MOJT, Career-level or Advanced-level School (Core Plus Skills)</th>
<th>Collective Training</th>
<th>Collective Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry-Level (Core Skills)</td>
<td></td>
<td>CREW/SECTION</td>
<td>SQUAD</td>
</tr>
<tr>
<td>1000-Level</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collective Training</th>
<th>Collective Training</th>
<th>Collective Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLATOON</td>
<td>COMPANY</td>
<td>CREW/SECTION</td>
</tr>
<tr>
<td>5000-Level</td>
<td>6000-Level</td>
<td>4000-Level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collective Training</th>
<th>Collective Training</th>
<th>Collective Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMPANY</td>
<td>BATTALION</td>
<td>SQUAD</td>
</tr>
<tr>
<td>6000-Level</td>
<td>7000-Level</td>
<td>4000-Level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collective Training</th>
<th>Collective Training</th>
<th>Collective Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>REG/BDE/MEU</td>
<td>SQUAD</td>
<td></td>
</tr>
<tr>
<td>7000-Level</td>
<td>8000-Level</td>
<td></td>
</tr>
</tbody>
</table>

Figure. 1-1 T&R Event Levels

(1) **Grouping.** Categorizing events with the use of a recognizable code makes the type of skill or capability being referenced fairly obvious. Examples include: PAT for patrolling events, DEF for events in the defense, FSPT for events related to fire support, etc. There is no special significance to the functional areas, but they should be intuitive to make it as easy as possible for the T&R user to find events. When organizing the T&R Manual, functional areas are alphabetized then the associated events are numbered. The events will be numbered based upon the introduction of each new functional area, allowing up to “999” events. For example: if there are seven Administrative events 4431 occupational field, then the events should start 4431-ADMN-1001 and run through 1007. Next, the Bulk Fuel events, BUFL should start at 4431-BUFL-1001.

(2) **Sequencing.** A numerical code is assigned to each individual (1000-2000-level) or collective (3000-9000-level) training event. The first number identifies the size of the unit performing the event, as depicted in figure 1-1. The second number is available for T&R Manuals with collective events that support those in other manuals to identify the echelon of unit being supported by a particular collective event. If a collective event is supported by other events or is performed in general support without regard to echelon, then a zero “0” will be utilized as the second number. For
example: 0231-TGT-3801 would refer to an event conducted by a four Marine Targeting Cell supporting a Regiment or Group, 0231-TGT-3001 would represent an event the Targeting Cell does in support of any sized unit. The event would not be labeled 0231-TGT-8001 because that would imply that a regiment sized targeting unit was performing some task. This is not possible, since no intelligence unit organizes in a unit larger than a Battalion. EXCEPTION: Events that relate to staff planning, to the conduct of a command operations center or to staff level decision making processes will be numbered according to the level of the unit to which the staff belongs. For example: an infantry battalion staff conducting planning for an offensive attack would be labeled as INF-PLAN-7001 even though the entire battalion is not actively involved in the planning of the operation. T&R event sequence numbers that begin with “9” are reserved for Marine Air Ground Task Forces (MAGTF) Command Element (CE) events. Marine Expeditionary Units (MEU) CE events will be numbered 90XX – 93XX. Marine Expeditionary Brigade (MEB) CE events will be numbered 94XX – 96XX. Marine Expeditionary Force (MEF) CE events will be numbered 97XX – 99XX.

![Diagram](image_url)

**Figure 1-2: T&R Event Coding**

1006. **COMBAT READINESS PERCENTAGE (CRP)**

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. CRP is the percentage of required training events that a unit or Marine accomplishes within specified sustainment intervals.

3. 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 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 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. 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. E-Coded collective events are 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 four 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%

1008. T&R EVENT COMPOSITION

1. **Event Code.** The event code is explained in paragraph 1005.
2. **Title.** The name of the event. The event title contains one action verb and ideally, one object.

3. **Evaluation-Coded.** Collective events categorize the capabilities that a given unit may be expected to perform. There are some collective events that the Marine Corps has determined that a unit MUST be able to perform, if that unit is to be considered fully ready for operations. These E-Coded events represent the irreducible minimum or the floor of readiness for a unit. E-Coded events are derived from the training measures of effectiveness for the METs for units that must report readiness in the DRRS. It would seem intuitive that most E-Coded events would be for Battalion sized units and higher since those are the units that report in DRRS. However, if the Marine Corps has determined that the readiness of a subordinate, supporting unit to accomplish a particular collective event is vital to the accomplishment of the supported unit’s MET, then that lower echelon collective event is E-Coded.

4. **Supported MET(s).** List all METs that are supported by the training event in the judgment of the occupation field drafting the T&R Manual, even if those events are not listed as Measure of Effectiveness (MOEs) in a MET.

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

6. **Billet/MOS.** Each individual training event will contain a billet code and/or MOS that designates who is responsible for performing that event and any corresponding formal course required for that billet. Each commander has the flexibility to shift responsibilities based on the organization of his command. These codes are based on recommendations from the collective subject matter expertise that developed this manual and are listed for each event.

7. **Grade.** The Grade field indicates the rank at which Marines are required to complete the event.

8. **Description.** This field allows T&R developers to include an explanation of event purpose, objectives, goals, and requirements. It is a general description of an action requiring learned skills and knowledge, i.e., engage fixed target with crew-served weapons. This is an optional field for individual events but it is strongly encouraged for collective events. This field can be of great value guiding a FLC or OPFOR unit trying to discern the intent behind an event that might not be readily apparent.

9. **Condition.** Condition refers to the constraints that may affect event performance in a real-world environment. It indicates what is provided (equipment, tools, materials, manuals, aids, etc.), environmental constraints or conditions under which the task is to be performed, and any specific cues or indicators to which the performer must respond. Commanders can modify the conditions of the event to best prepare their Marines to accomplish the assigned mission (e.g. in a desert environment; in a mountain environment; etc.). When resources or safety requirements limit the conditions, this
should be stated. The content of the condition should be included in the event on a “by exception” basis. If there exists an assumption regarding the conditions under which all or most of the events in the Manual will be performed, then only those additional or exceptional items required should be listed in the condition. The common conditions under which all the events in a chapter will be executed will be listed as a separate paragraph at the beginning of the chapter.

10. Standard. The performance standard indicates the basis for judging the 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 must be strictly adhered to. The standard for collective events will likely be general, describing the desired end-state or purpose of the event. The standard for individual events will be objective, quantifiable, and readily observable. Standards will more specifically describe to what proficiency level, specified in terms of accuracy, completeness, time required, and sequencing the event is to be accomplished. These guidelines can be summarized in the acronym “ACTS” (Accuracy Completeness Time Sequence.) In no cases will “per the reference” or “per/in accordance with commander’s intent” be used as a stand-alone standard.

11. Event Components/Performance Steps. Description of the actions that the event is composed of, or a list of subordinate, included T&R event codes and event descriptions. The event components help the user determine what must be accomplished and to properly plan for the event. Event components are used for collective events; performance steps are used for individual events.

   a. The event components and performance steps will be consciously written so that they may be employed as performance evaluation check lists by the operating forces.

   b. Event components may be events one individual in the unit performs, events that small groups in the unit perform, or events involving the entire unit. After the publication of this order, all component events will identify the behaviors required in plain English but also by citing the precise event number the component event refers to, unless that component event only occurs as part of the collective event where it is listed. This provision will allow for specific events to be chained together in order to provide greater granularity for units and Marines executing the events, and clarity for those charged with evaluating unit performance.

12. 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.

13. 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.

14. Related ITEs. A list of all of the Individual Training Events (1000-2000-level events) that support the event.

15. Initial Training Setting. All individual events will designate the setting at which the skill is first taught, either at the FLC, in the OPFOR as MOJT, or via a distance learning product (DL).

16. References. The training references shall be utilized to determine task performance steps. They assist the trainee in satisfying the performance standards, or the trainer in evaluating the effectiveness of task completion. T&R Manuals are designed to be a training outline, not to replicate or replace doctrinal publications, reference publications or technical manuals. References are key to developing detailed lesson plans, determining grading criteria, and ensuring standardization of training.

17. Distance Learning Products. Distance learning products include: Individual Multimedia Instruction (IMI), Computer-Based Training (CBT), Marine Corps Institute (MCI), etc. This notation is included when, in the opinion of the TRMG in consultation with the MTSD representative, the event can be taught via one of these media vice attending a formal course of instruction or receiving MOJT.

18. Support Requirements. This is a list of the external and internal support the unit and Marines will need to complete the event. This is a key section in the overall T&R effort, as resources will eventually be tied directly to the training towards METS. Future efforts to attain and allocate resources will be based on the requirements outlined in the T&R Manual. The list includes, but is not limited to:

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

The ordnance requirements for one year of training for the events in the T&R will be aggregated into a table contained in an appendix to the T&R. The task analyst and the occupational field representatives will be careful not to “double count” ammunition that might be employed in the performance of individual and collective events that are chained.

19. Suitability of Simulation/Simulators/DL products. If the TRMG determines that an event can be trained to standard by use of simulation, simulator or a DL product, this will be noted in the event title in a parenthetical remark. Figure 1-3 contains all acceptable codes. The specific simulation, simulator or DL product that is acceptable for training will be noted in the description block and in Supporting Requirements block.
<table>
<thead>
<tr>
<th>Code</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Event able to be performed to standard only live environment</td>
</tr>
<tr>
<td>S</td>
<td>Event performed with simulation and/or simulator, particularly when it is unsafe to conduct the training in a live environment and when supporting live training used as a capstone event to a training continuum that includes academics, simulation-based, and live training</td>
</tr>
<tr>
<td>S/L</td>
<td>Event performed with simulation and/or simulator preferred/live optional. If the resources available do not allow for live training to occur, simulation-based training can assist in maintaining proficiency and provide a means to temporarily fill those identified training gaps.</td>
</tr>
<tr>
<td>DL</td>
<td>Event shall be performed by self-paced, technology-enabled training (i.e. MarineNet)</td>
</tr>
<tr>
<td>DL/L</td>
<td>Event may be performed by self-paced, technology enabled training or in a live environment</td>
</tr>
</tbody>
</table>

Figure 1-3 Acceptable Codes

20. Miscellaneous

a. This field provides space for any additional information that will assist in the planning and execution of the event. Units and FLCS are cautioned not to disregard this information or to consider the information of lesser importance than what is contained in other parts of the T&R event. Miscellaneous fields provide an opportunity for the drafters of the T&R event to communicate vital information that might not fit neatly into any other available field. The list may include, but is not limited to:

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

b. An example of a T&R event is provided in figure 1-4.
1. All personnel assigned to the operating force must be trained in CBRN defense, 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 CBRN attacks. Basic operating standards are those that the individual, and collectively the unit, must perform to continue operations in a CBRN environment.

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

1010. 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 the availability of equipment and personnel.

1011. 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).

1012. 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 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.
<table>
<thead>
<tr>
<th>Paragraph</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MWSS Core Mission Essential Task List (METL)</td>
<td>2000 2-2</td>
</tr>
<tr>
<td>MWSS Mission Essential Task (MET) Matrix</td>
<td>2001 2-2</td>
</tr>
</tbody>
</table>
2000. MARINE WING SUPPORT SQUADRON CORE MISSION ESSENTIAL TASK LIST (METL). The Marine Wing Support Squadron METL Table lists the Standardized Core Mission Essential Tasks (MET), derived from the Marine Corps Task List (MCTL), for the Marine Wing Support Squadron. This METL is used for readiness reporting in the Defense Readiness Reporting System (DRRS).

MARINE WING SUPPORT SQUADRON CORE MISSION ESSENTIAL TASKS

<table>
<thead>
<tr>
<th>MARINE CORPS TASK LIST</th>
<th>MARINE WING SUPPORT SQUADRON CORE METL</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 4.6.3</td>
<td>Provide Airfield Operation Services</td>
</tr>
<tr>
<td>MCT 5.3.2.12</td>
<td>Establish/Operate Aviation Ground Support Operations Center (AGSOC)</td>
</tr>
<tr>
<td>MCT 5.3.3.3</td>
<td>Establish Forward Operating Locations (FOB, FOS, FARP)</td>
</tr>
<tr>
<td>MCT 6.1.1.3.4</td>
<td>Provide Base/Airfield Security Operations</td>
</tr>
<tr>
<td>MCT 6.3.3</td>
<td>Restore Mission Essential Operations/Communications</td>
</tr>
</tbody>
</table>

2001. MARINE WING SUPPORT SQUADRON MISSION ESSENTIAL TASK MATRIX. The Marine Wing Support Squadron Mission Essential Task Matrix contains the METs identified in the MWSS METL. The MWSS MET matrix includes the designated MET number and supporting collective events.

MET#/MISSION ESSENTIAL TASK

<table>
<thead>
<tr>
<th>MET 4.6.3 PROVIDE AIRFIELD OPERATION SERVICES</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQDR-OPS-7001 Train AGS forces</td>
</tr>
<tr>
<td>SQDR-OPS-7002 Command and Control AGS</td>
</tr>
<tr>
<td>SQDR-OPS-7003 Establish AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>SQDR-PLAN-7001 Plan AGS operations</td>
</tr>
<tr>
<td>SQDR-PLAN-7002 Plan FOB operations</td>
</tr>
<tr>
<td>AOPS-ARFF-6001 Plan Aircraft Rescue and Fire Fighting (ARFF) services</td>
</tr>
<tr>
<td>AOPS-ARFF-6002 Conduct mass casualty operations</td>
</tr>
<tr>
<td>AOPS-EAF-6001 Plan Expeditionary Airfield (EAF) services</td>
</tr>
<tr>
<td>AOPS-OPS-6001 Train Air Operations personnel</td>
</tr>
<tr>
<td>AOPS-OPS-6002 Provide Air Operations services</td>
</tr>
<tr>
<td>HQCO-OPS-6001 Train Headquarters &amp; Service company personnel</td>
</tr>
<tr>
<td>HQCO-OPS-6003 Operate AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>AOPS-ARFF-5001 Provide ARFF services</td>
</tr>
<tr>
<td>AOPS-EAF-5001 Provide EAF services</td>
</tr>
<tr>
<td>AOPS-FUEL-5001 Conduct FARP</td>
</tr>
<tr>
<td>AOPS-FUEL-5002 Construct bulk fuel site</td>
</tr>
<tr>
<td>AOPS-FUEL-5003 Conduct tactical bulk fuel operations</td>
</tr>
<tr>
<td>HQCO-COMM-5001 Provide single channel radio services</td>
</tr>
<tr>
<td>HQCO-COMM-5002 Provide telephone services</td>
</tr>
<tr>
<td>Code</td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>HQCO-COMM-5003</td>
</tr>
<tr>
<td>HQCO-COMM-5004</td>
</tr>
<tr>
<td>HQCO-COMM-5005</td>
</tr>
<tr>
<td>AOPS-ARFF-4001</td>
</tr>
<tr>
<td>AOPS-ARFF-4002</td>
</tr>
<tr>
<td>AOPS-EAF-4001</td>
</tr>
<tr>
<td>AOPS-EAF-4002</td>
</tr>
<tr>
<td>AOPS-EAF-4003</td>
</tr>
<tr>
<td>AOPS-EAF-4004</td>
</tr>
<tr>
<td>AOPS-EAF-4005</td>
</tr>
<tr>
<td>AOPS-EOD-4001</td>
</tr>
<tr>
<td>AOPS-FUEL-4001</td>
</tr>
<tr>
<td>HQCO-COMM-4001</td>
</tr>
<tr>
<td>HQCO-OPS-4002</td>
</tr>
<tr>
<td>AOPS-EOD-3001</td>
</tr>
<tr>
<td>AOPS-EOD-3002</td>
</tr>
<tr>
<td>AOPS-EOD-3003</td>
</tr>
<tr>
<td>AOPS-EOD-3004</td>
</tr>
<tr>
<td>AOPS-EOD-3005</td>
</tr>
<tr>
<td>AOPS-EOD-3006</td>
</tr>
<tr>
<td>AOPS-EOD-3007</td>
</tr>
<tr>
<td>AOPS-EOD-3008</td>
</tr>
<tr>
<td>AOPS-EOD-3009</td>
</tr>
<tr>
<td>AOPS-EOD-3010</td>
</tr>
<tr>
<td>AOPS-EOD-3011</td>
</tr>
<tr>
<td>ENGR-RECN-3001</td>
</tr>
<tr>
<td>ENGR-RECN-3002</td>
</tr>
</tbody>
</table>

**MCT 5.3.2.12 Establishe/operate Aviation Ground Support Operations Center (AGSOC)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQDR-OPS-7001</td>
<td>Train AGS forces</td>
</tr>
<tr>
<td>SQDR-OPS-7002</td>
<td>Command and Control AGS</td>
</tr>
<tr>
<td>SQDR-OPS-7003</td>
<td>Establish AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>SQDR-OPS-7004</td>
<td>Conduct Base Recovery After Attack (BRAAT) operations</td>
</tr>
<tr>
<td>SQDR-PLAN-7001</td>
<td>Plan AGS operations</td>
</tr>
<tr>
<td>SQDR-PLAN-7002</td>
<td>Plan FOB operations</td>
</tr>
<tr>
<td>SQDR-PLAN-7003</td>
<td>Plan Base/Airfield security operations</td>
</tr>
<tr>
<td>AOPS-ARFF-6001</td>
<td>Plan Aircraft Rescue and Fire Fighting (ARFF) services</td>
</tr>
<tr>
<td>AOPS-EAF-6001</td>
<td>Plan Expeditionary Airfield (EAF) services</td>
</tr>
<tr>
<td>AOPS-OPS-6002</td>
<td>Provide Air Operations services</td>
</tr>
<tr>
<td>ENGR-OPS-6001</td>
<td>Plan engineer operations</td>
</tr>
<tr>
<td>ENGR-OPS-6002</td>
<td>Command and Control engineer forces</td>
</tr>
<tr>
<td>HQCO-ABGD-6001</td>
<td>Conduct BDOC operations</td>
</tr>
<tr>
<td>HQCO-OPS-6002</td>
<td>Provide Headquarters &amp; Service company support</td>
</tr>
<tr>
<td>HQCO-OPS-6003</td>
<td>Chapter 3 Operate AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>MTCO-OPS-6001</td>
<td>Plan Motor Transportation company services</td>
</tr>
</tbody>
</table>

**Enclosure (1)**
Hqco-comm-5001: provide single channel radio services
Hqco-comm-5002: provide telephone services
Hqco-comm-5003: execute a cabling plan
Hqco-comm-5004: provide data network services
Hqco-comm-5005: provide a communications network in support of a command element
Hqco-ops-5001: conduct minimum operating strip (mos) selection

Mct 5.3.3.3 establish forward operating locations (fob, fos, farp)

Sqdr-ops-7001: train ags forces
Sqdr-ops-7002: command and control ags
Sqdr-ops-7003: establish ags operations center (agsoc)
Sqdr-ops-7004: conduct base recovery after attack (braat) operations
Sqdr-ops-7005: establish base/airfield security operations
Sqdr-ops-7006: conduct aircraft salvage operations
Sqdr-plan-7001: plan ags operations
Sqdr-plan-7002: plan fob operations
Sqdr-plan-7003: plan base/airfield security operations
Aops-arff-6001: plan aircraft rescue and fire fighting (arff) services
Aops-arff-6002: conduct mass casualty operations
Aops-eaf-6001: plan expeditionary airfield (eaf) services
Aops-ops-6001: train air operations personnel
Aops-ops-6002: provide air operations services
Engr-ops-6001: plan engineer operations
Engr-ops-6002: command and control engineer forces
Engr-ops-6003: train engineer company personnel
Engr-ops-6004: conduct general engineering operations
Engr-ops-6005: conduct countermobility operations
Hqco-abgd-6001: conduct bdoc operations
Hqco-ops-6001: train headquarters & service company personnel
Hqco-ops-6002: provide headquarters & service company support
Hqco-ops-6003: operate ags operations center (agsoc)
Mtc-ops-6001: plan motor transportation company services
Mtc-ops-6002: train motor transportation company personnel
Mtc-ops-6003: provide motor transportation company services
Mtc-ops-6004: establish a tactical motor pool
Mtc-ops-6005: conduct convoy operations
Aops-arff-5001: provide arff services
Aops-eaf-5001: provide eaf services
Aops-fuel-5001: conduct forward arming and refueling point (farp)
Aops-fuel-5002: construct bulk fuel site
Aops-fuel-5003: conduct tactical bulk fuel operations
Engr-equip-5001: provide engineer equipment support
Engr-horz-5001: conduct horizontal construction
Engr-horz-5002: prepare site for construction
Engr-mant-5001: maintain engineer equipment
Engr-mobl-5001: conduct airfield damage repair (adr)
Engr-mobl-5002: construct tactical landing zones (tlzs)
Engr-mobl-5003: conduct area clearance operations
Engr-mobl-5004: construct expeditious helicopter landing zone (hlz)
Engr-recn-5001: conduct engineer reconnaissance
Engr-surv-5001: construct survivability positions
Engr-surv-5002: harden existing structure(s)
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-UTIL-5001</td>
<td>Provide utilities support</td>
</tr>
<tr>
<td>ENGR-VERT-5001</td>
<td>Conduct vertical construction</td>
</tr>
<tr>
<td>HQCO-COMM-5001</td>
<td>Provide single channel radio services</td>
</tr>
<tr>
<td>HQCO-COMM-5002</td>
<td>Provide telephone services</td>
</tr>
<tr>
<td>HQCO-COMM-5003</td>
<td>Execute a cabling plan</td>
</tr>
<tr>
<td>HQCO-COMM-5004</td>
<td>Provide data network services</td>
</tr>
<tr>
<td>HQCO-COMM-5004</td>
<td>Provide data network services</td>
</tr>
<tr>
<td>HQCO-COMM-5005</td>
<td>Provide a communications network in support of a command element</td>
</tr>
<tr>
<td>HQCO-MED-5001</td>
<td>Provide medical services</td>
</tr>
<tr>
<td>HQCO-MED-5002</td>
<td>Perform mass casualty</td>
</tr>
<tr>
<td>HQCO-OPS-5001</td>
<td>Conduct Minimal Operating Strip (MOS) selection</td>
</tr>
<tr>
<td>MTCO-OPS-5001</td>
<td>Conduct convoy operations</td>
</tr>
<tr>
<td>MTCO-OPS-5002</td>
<td>Establish a tactical motor pool</td>
</tr>
<tr>
<td>AOPS-ARFF-4001</td>
<td>Conduct structural firefighting operations</td>
</tr>
<tr>
<td>AOPS-ARFF-4002</td>
<td>Conduct ARFF operations</td>
</tr>
<tr>
<td>AOPS-EAF-4001</td>
<td>Provide aircraft arrestment capability</td>
</tr>
<tr>
<td>AOPS-EAF-4002</td>
<td>Provide visual landing aids for terminal guidance of aircraft</td>
</tr>
<tr>
<td>AOPS-EAF-4003</td>
<td>Provide airfield lighting/markings</td>
</tr>
<tr>
<td>AOPS-EAF-4004</td>
<td>Chapter 4 Conduct aircraft arrestment/recovery operations</td>
</tr>
<tr>
<td>AOPS-EAF-4005</td>
<td>Conduct expedient Tactical Landing Zone (TLZ) site survey</td>
</tr>
<tr>
<td>AOPS-EOD-4001</td>
<td>Provide Support to Other Government Agencies in support of the Homeland Defense Mission</td>
</tr>
<tr>
<td>AOPS-FUEL-4001</td>
<td>Maintain bulk fuel distribution site</td>
</tr>
<tr>
<td>ENGR-CMOB-4002</td>
<td>Create a non-explosive obstacle/barriers</td>
</tr>
<tr>
<td>ENGR-EQIP-4001</td>
<td>Conduct Material Handling Equipment (MHE) operations</td>
</tr>
<tr>
<td>ENGR-HORZ-4001</td>
<td>Conduct horizontal construction</td>
</tr>
<tr>
<td>ENGR-MANT-4001</td>
<td>Maintain engineer equipment</td>
</tr>
<tr>
<td>ENGR-MOBL-4001</td>
<td>Conduct route improvement</td>
</tr>
<tr>
<td>ENGR-MOBL-4002</td>
<td>Repair runway crater</td>
</tr>
<tr>
<td>ENGR-MOBL-4003</td>
<td>Repair spall(s)</td>
</tr>
<tr>
<td>ENGR-MOBL-4004</td>
<td>Conduct dismounted route sweep operations</td>
</tr>
<tr>
<td>ENGR-SURV-4007</td>
<td>Construct vehicle survivability position/revetment</td>
</tr>
<tr>
<td>ENGR-UTIL-4001</td>
<td>Provide tactical electrical power</td>
</tr>
<tr>
<td>ENGR-UTIL-4002</td>
<td>Provide potable water</td>
</tr>
<tr>
<td>ENGR-VERT-4001</td>
<td>Construct manufactured steel structure</td>
</tr>
<tr>
<td>ENGR-VERT-4002</td>
<td>Construct wood frame structure</td>
</tr>
<tr>
<td>ENGR-VERT-4003</td>
<td>Construct concrete block structure</td>
</tr>
<tr>
<td>HQCO-COMM-4001</td>
<td>Establish data network services</td>
</tr>
<tr>
<td>HQCO-MED-4001</td>
<td>Coordinate patient movement</td>
</tr>
<tr>
<td>HQCO-OPS-4002</td>
<td>Conduct Damage Assessment and Response Team (DART) activities</td>
</tr>
<tr>
<td>MTCO-OPS-4001</td>
<td>Conduct convoy operations</td>
</tr>
<tr>
<td>AOPS-EOD-3001</td>
<td>Respond to an aircraft incident</td>
</tr>
<tr>
<td>AOPS-EOD-3002</td>
<td>Conduct CBRN Response Operations</td>
</tr>
<tr>
<td>AOPS-EOD-3003</td>
<td>Conduct disposal of explosive components</td>
</tr>
<tr>
<td>AOPS-EOD-3004</td>
<td>Conduct post blast analysis</td>
</tr>
<tr>
<td>AOPS-EOD-3005</td>
<td>Conduct sensitive site exploitation</td>
</tr>
<tr>
<td>AOPS-EOD-3006</td>
<td>Conduct unexploded explosive ordnance (UXO) response</td>
</tr>
<tr>
<td>Module</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>------------------------------------------------------------------</td>
</tr>
<tr>
<td>AOPS-EOD-3007</td>
<td>Conduct full spectrum EOD operations</td>
</tr>
<tr>
<td>AOPS-EOD-3008</td>
<td>Conduct IED operations</td>
</tr>
<tr>
<td>AOPS-EOD-3009</td>
<td>Conduct WMD operations</td>
</tr>
<tr>
<td>AOPS-EOD-3010</td>
<td>Conduct conventional explosive ordnance operations</td>
</tr>
<tr>
<td>ENGR-MANT-3004</td>
<td>Maintain water purification equipment</td>
</tr>
<tr>
<td>ENGR-MANT-3005</td>
<td>Maintain hygiene equipment</td>
</tr>
<tr>
<td>ENGR-RECN-3001</td>
<td>Assess damage to airfield surfaces</td>
</tr>
<tr>
<td>ENGR-RECN-3002</td>
<td>Assess damage to airfield facilities</td>
</tr>
<tr>
<td>ENGR-RECN-3005</td>
<td>Conduct obstacle reconnaissance</td>
</tr>
<tr>
<td>ENGR-RECN-3006</td>
<td>Conduct bridge reconnaissance</td>
</tr>
<tr>
<td>ENGR-RECN-3007</td>
<td>Conduct road reconnaissance</td>
</tr>
<tr>
<td>ENGR-SURV-3001</td>
<td>Construct vehicle survivability position/revetment</td>
</tr>
<tr>
<td>ENGR-SURV-3002</td>
<td>Construct individual fighting position</td>
</tr>
<tr>
<td>ENGR-SURV-3003</td>
<td>Construct crew served weapons position</td>
</tr>
<tr>
<td>ENGR-SURV-3004</td>
<td>Construct overhead cover</td>
</tr>
<tr>
<td>ENGR-SURV-3006</td>
<td>Construct shelter/bunkers</td>
</tr>
<tr>
<td>ENGR-SURV-3007</td>
<td>Construct vehicle fighting position</td>
</tr>
<tr>
<td>ENGR-UTIL-3001</td>
<td>Establish tactical power distribution system</td>
</tr>
<tr>
<td>ENGR-UTIL-3003</td>
<td>Establish power generation site(s)</td>
</tr>
<tr>
<td>ENGR-UTIL-3006</td>
<td>Provide refrigeration support</td>
</tr>
<tr>
<td>ENGR-UTIL-3007</td>
<td>Produce potable water</td>
</tr>
<tr>
<td>ENGR-VERT-3001</td>
<td>Fell standing timber</td>
</tr>
<tr>
<td>HQCO-CBRN-3001</td>
<td>Conduct unit Individual Protective Equipment (IPE) confidence exercise</td>
</tr>
<tr>
<td>HQCO-CBRN-3002</td>
<td>Conduct CBRN center operations</td>
</tr>
<tr>
<td>HQCO-CBRN-3003</td>
<td>Conduct operational decontamination</td>
</tr>
<tr>
<td>HQCO-FOOD-3002</td>
<td>Conduct technical inspections</td>
</tr>
<tr>
<td>HQCO-FOOD-3003</td>
<td>Embark equipment</td>
</tr>
<tr>
<td>HQCO-FOOD-3004</td>
<td>Establish an expeditionary feeding site</td>
</tr>
<tr>
<td>HQCO-MED-3001</td>
<td>Receive Casualties</td>
</tr>
<tr>
<td>HQCO-MED-3002</td>
<td>Conduct temporary casualty holding</td>
</tr>
<tr>
<td>HQCO-MED-3003</td>
<td>Perform medical care</td>
</tr>
<tr>
<td>HQCO-MED-3004</td>
<td>Conduct casualty evacuation</td>
</tr>
</tbody>
</table>

**MCT 6.1.1.3.4 PROVIDE BASE/AIRFIELD SECURITY OPERATIONS**

<table>
<thead>
<tr>
<th>Module</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQDR-OPS-7001</td>
<td>Train AGS forces</td>
</tr>
<tr>
<td>SQDR-OPS-7002</td>
<td>Command and control AGS</td>
</tr>
<tr>
<td>SQDR-OPS-7003</td>
<td>Establish AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>SQDR-OPS-7005</td>
<td>Establish Base/Airfield security operations</td>
</tr>
<tr>
<td>SQDR-PLAN-7001</td>
<td>Plan AGS operations</td>
</tr>
<tr>
<td>SQDR-PLAN-7003</td>
<td>Plan Base/Airfield security operations</td>
</tr>
<tr>
<td>AOPS-OPS-6001</td>
<td>Train Air Operations personnel</td>
</tr>
<tr>
<td>ENGR-OPS-6003</td>
<td>Train engineer company personnel</td>
</tr>
<tr>
<td>ENGR-OPS-6005</td>
<td>Conduct countermobility operations</td>
</tr>
<tr>
<td>HQCO-ABGD-6001</td>
<td>Conduct BDOC operations</td>
</tr>
<tr>
<td>HQCO-ABGD-6002</td>
<td>Provide delay tactics against level III threats</td>
</tr>
<tr>
<td>HQCO-OPS-6001</td>
<td>Train Headquarters &amp; Service company personnel</td>
</tr>
<tr>
<td>HQCO-OPS-6002</td>
<td>Provide Headquarters &amp; Service company support</td>
</tr>
<tr>
<td>HQCO-OPS-6003</td>
<td>Operate AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>MTCO-OPS-6005</td>
<td>Conduct convoy operations</td>
</tr>
<tr>
<td>ENGR-MOBL-5003</td>
<td>Conduct area clearance operations</td>
</tr>
<tr>
<td>ENGR-RECN-5001</td>
<td>Conduct engineer reconnaissance</td>
</tr>
<tr>
<td>Command Code</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>ENGR-SURV-5001</td>
<td>Construct survivability positions</td>
</tr>
<tr>
<td>ENGR-SURV-5002</td>
<td>Harden existing structure(s)</td>
</tr>
<tr>
<td>HQCO-ABGD-5001</td>
<td>Conduct guard force operations</td>
</tr>
<tr>
<td>HQCO-ABGD-5002</td>
<td>Conduct response force operations</td>
</tr>
<tr>
<td>HQCO-ABGD-5003</td>
<td>Conduct tenant unit force operations</td>
</tr>
<tr>
<td>HQCO-ABGD-5004</td>
<td>Establish provisional security forces</td>
</tr>
<tr>
<td>HQCO-COMM-5001</td>
<td>Provide single channel radio services</td>
</tr>
<tr>
<td>HQCO-COMM-5002</td>
<td>Provide telephone services</td>
</tr>
<tr>
<td>ENGR-CMOB-4001</td>
<td>Create an explosive obstacle</td>
</tr>
<tr>
<td>ENGR-CMOB-4002</td>
<td>Create a non-explosive obstacle/barriers</td>
</tr>
<tr>
<td>ENGR-CMOB-4003</td>
<td>Employ demolitions in support of countermobility operations</td>
</tr>
<tr>
<td>ENGR-MOBL-4004</td>
<td>Conduct dismounted route sweep operations</td>
</tr>
<tr>
<td>ENGR-SURV-4007</td>
<td>Construct vehicle survivability position/revetment</td>
</tr>
<tr>
<td>HQCO-ABGD-4001</td>
<td>Implement security measures</td>
</tr>
<tr>
<td>HQCO-ABGD-4002</td>
<td>Employ Force Protection Conditions (FPCON)</td>
</tr>
<tr>
<td>HQCO-ABGD-4003</td>
<td>Employ security objectives</td>
</tr>
<tr>
<td>HQCO-ABGD-4004</td>
<td>Employ security principles</td>
</tr>
<tr>
<td>HQCO-ABGD-4005</td>
<td>Employ security tasks</td>
</tr>
<tr>
<td>HQCO-ABGD-4006</td>
<td>Employ security and control procedures</td>
</tr>
<tr>
<td>ENGR-CMOB-3001</td>
<td>Construct demolition obstacles</td>
</tr>
<tr>
<td>ENGR-CMOB-3002</td>
<td>Construct field expedient obstacle</td>
</tr>
<tr>
<td>ENGR-CMOB-3004</td>
<td>Build non-explosive obstacles</td>
</tr>
<tr>
<td>ENGR-SURV-3001</td>
<td>Construct vehicle survivability position/revetment</td>
</tr>
<tr>
<td>ENGR-SURV-3002</td>
<td>Construct individual fighting position</td>
</tr>
<tr>
<td>ENGR-SURV-3003</td>
<td>Construct crew served weapons position</td>
</tr>
<tr>
<td>ENGR-SURV-3004</td>
<td>Construct overhead cover</td>
</tr>
<tr>
<td>ENGR-SURV-3006</td>
<td>Construct shelter/bunkers</td>
</tr>
<tr>
<td>ENGR-SURV-3007</td>
<td>Construct vehicle fighting position</td>
</tr>
<tr>
<td>HQCO-ABGD-3001</td>
<td>Employ a medium machinegun team</td>
</tr>
<tr>
<td>HQCO-ABGD-3002</td>
<td>Employ a heavy machinegun team</td>
</tr>
</tbody>
</table>

**MCT 6.3.3 RESTORE MISSION ESSENTIAL OPERATIONS/COMMUNICATIONS**

<table>
<thead>
<tr>
<th>Command Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQDR-OPS-7001</td>
<td>Train AGS forces</td>
</tr>
<tr>
<td>SQDR-OPS-7002</td>
<td>Command and control AGS</td>
</tr>
<tr>
<td>SQDR-OPS-7003</td>
<td>Establish AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>SQDR-OPS-7004</td>
<td>Conduct Base Recovery After Attack (BRAAT) operations</td>
</tr>
<tr>
<td>SQDR-OPS-7006</td>
<td>Conduct aircraft salvage operations</td>
</tr>
<tr>
<td>SQDR-PLAN-7001</td>
<td>Plan AGS operations</td>
</tr>
<tr>
<td>AOPS-ARFF-6001</td>
<td>Plan Aircraft Rescue and Fire Fighting (ARFF) services</td>
</tr>
<tr>
<td>AOPS-ARFF-6002</td>
<td>Conduct mass casualty operations</td>
</tr>
<tr>
<td>AOPS-OPS-6001</td>
<td>Train Air Operations personnel</td>
</tr>
<tr>
<td>ENGR-OPS-6001</td>
<td>Plan engineer operations</td>
</tr>
<tr>
<td>ENGR-OPS-6002</td>
<td>Command and Control engineer forces</td>
</tr>
<tr>
<td>ENGR-OPS-6003</td>
<td>Train engineer company personnel</td>
</tr>
<tr>
<td>ENGR-OPS-6004</td>
<td>Conduct general engineering operations</td>
</tr>
<tr>
<td>HQCO-OPS-6001</td>
<td>Train Headquarters &amp; Service company personnel</td>
</tr>
<tr>
<td>HQCO-OPS-6002</td>
<td>Provide Headquarters &amp; Service company support</td>
</tr>
<tr>
<td>HQCO-OPS-6003</td>
<td>Operate AGS Operations Center (AGSOC)</td>
</tr>
<tr>
<td>MTCO-OPS-6001</td>
<td>Plan motor transportation company services</td>
</tr>
<tr>
<td>MTCO-OPS-6002</td>
<td>Train Motor Transportation company personnel</td>
</tr>
<tr>
<td>MTCO-OPS-6003</td>
<td>Provide motor transportation company services</td>
</tr>
<tr>
<td>MTCO-OPS-6004</td>
<td>Establish a tactical motor pool</td>
</tr>
<tr>
<td>Code</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>MTCO-OPS-6005</td>
<td>Conduct convoy operations</td>
</tr>
<tr>
<td>AOPS-ARFF-5001</td>
<td>Provide ARFF services</td>
</tr>
<tr>
<td>ENGR-EQIP-5001</td>
<td>Provide engineer equipment support</td>
</tr>
<tr>
<td>ENGR-HORZ-5001</td>
<td>Conduct horizontal construction</td>
</tr>
<tr>
<td>ENGR-HORZ-5002</td>
<td>Prepare site for construction</td>
</tr>
<tr>
<td>ENGR-MOBL-5001</td>
<td>Conduct Airfield Damage Repair (ADR)</td>
</tr>
<tr>
<td>ENGR-MOBL-5002</td>
<td>Construct Tactical Landing Zones (TLZs)</td>
</tr>
<tr>
<td>ENGR-MOBL-5003</td>
<td>Conduct area clearance operations</td>
</tr>
<tr>
<td>ENGR-MOBL-5004</td>
<td>Construct expedient Helicopter Landing Zone (HLZ)</td>
</tr>
<tr>
<td>ENGR-UTIL-5001</td>
<td>Provide utilities support</td>
</tr>
<tr>
<td>ENGR-VERT-5001</td>
<td>Conduct vertical construction</td>
</tr>
<tr>
<td>HQCO-COMM-5001</td>
<td>Provide single channel radio services</td>
</tr>
<tr>
<td>HQCO-COMM-5002</td>
<td>Provide telephone services</td>
</tr>
<tr>
<td>HQCO-COMM-5003</td>
<td>Execute a cabling plan</td>
</tr>
<tr>
<td>HQCO-COMM-5004</td>
<td>Provide data network services</td>
</tr>
<tr>
<td>HQCO-COMM-5005</td>
<td>Provide a communications network in support of a command element</td>
</tr>
<tr>
<td>HQCO-MED-5001</td>
<td>Provide medical services</td>
</tr>
<tr>
<td>HQCO-MED-5002</td>
<td>Perform mass casualty</td>
</tr>
<tr>
<td>HQCO-OPS-5001</td>
<td>Conduct Minimum Operating Strip (MOS) selection</td>
</tr>
<tr>
<td>MTCO-OPS-5001</td>
<td>Conduct convoy operations</td>
</tr>
<tr>
<td>MTCO-OPS-5002</td>
<td>Establish a tactical motor pool</td>
</tr>
<tr>
<td>AOPS-ARFF-4001</td>
<td>Conduct structural firefighting operations</td>
</tr>
<tr>
<td>AOPS-ARFF-4002</td>
<td>Conduct ARFF operations</td>
</tr>
<tr>
<td>AOPS-EOD-4001</td>
<td>Provide Support to Other Government Agencies in support of the Homeland Defense Mission</td>
</tr>
<tr>
<td>ENGR-EQIP-4001</td>
<td>Conduct Material Handling Equipment (MHE) operations</td>
</tr>
<tr>
<td>ENGR-HORZ-4001</td>
<td>Conduct horizontal construction</td>
</tr>
<tr>
<td>ENGR-MOBL-4001</td>
<td>Conduct route improvement</td>
</tr>
<tr>
<td>ENGR-MOBL-4002</td>
<td>Repair runway crater</td>
</tr>
<tr>
<td>ENGR-MOBL-4003</td>
<td>Repair spall(s)</td>
</tr>
<tr>
<td>ENGR-MOBL-4004</td>
<td>Conduct dismounted route sweep operations</td>
</tr>
<tr>
<td>ENGR-UTIL-4001</td>
<td>Provide tactical electrical power</td>
</tr>
<tr>
<td>ENGR-VERT-4001</td>
<td>Construct manufactured steel structure</td>
</tr>
<tr>
<td>ENGR-VERT-4002</td>
<td>Construct wood frame structure</td>
</tr>
<tr>
<td>ENGR-VERT-4003</td>
<td>Construct concrete block structure</td>
</tr>
<tr>
<td>HQCO-COMM-4001</td>
<td>Establish data network services</td>
</tr>
<tr>
<td>HQCO-OPS-4002</td>
<td>Conduct Damage Assessment and Response Team (DART) activities</td>
</tr>
<tr>
<td>AOPS-EOD-3001</td>
<td>Respond to an aircraft incident</td>
</tr>
<tr>
<td>AOPS-EOD-3002</td>
<td>Conduct CBRN Response Operations</td>
</tr>
<tr>
<td>AOPS-EOD-3003</td>
<td>Conduct disposal of explosive components</td>
</tr>
<tr>
<td>AOPS-EOD-3004</td>
<td>Conduct post blast analysis</td>
</tr>
<tr>
<td>AOPS-EOD-3005</td>
<td>Conduct sensitive site exploitation</td>
</tr>
<tr>
<td>AOPS-EOD-3006</td>
<td>Conduct unexploded explosive ordnance (UXO) response operations</td>
</tr>
<tr>
<td>AOPS-EOD-3007</td>
<td>Conduct full spectrum EOD operations</td>
</tr>
<tr>
<td>AOPS-EOD-3008</td>
<td>Conduct IED operations</td>
</tr>
<tr>
<td>AOPS-EOD-3009</td>
<td>Conduct WMD operations</td>
</tr>
<tr>
<td>AOPS-EOD-3010</td>
<td>Conduct conventional explosive ordnance operations</td>
</tr>
<tr>
<td>AOPS-EOD-3011</td>
<td>Provide nuclear ordnance operations</td>
</tr>
<tr>
<td>ENGR-RECN-3001</td>
<td>Assess damage to airfield surfaces</td>
</tr>
<tr>
<td>Code</td>
<td>Task Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------</td>
</tr>
<tr>
<td>ENGR-RECN-3002</td>
<td>Assess damage to airfield facilities</td>
</tr>
<tr>
<td>ENGR-RECN-3005</td>
<td>Conduct obstacle reconnaissance</td>
</tr>
<tr>
<td>ENGR-RECN-3006</td>
<td>Conduct bridge reconnaissance</td>
</tr>
<tr>
<td>ENGR-RECN-3007</td>
<td>Conduct road reconnaissance</td>
</tr>
<tr>
<td>ENGR-UTIL-3001</td>
<td>Establish tactical power distribution system</td>
</tr>
<tr>
<td>ENGR-UTIL-3003</td>
<td>Establish power generation site(s)</td>
</tr>
<tr>
<td>ENGR-UTIL-3007</td>
<td>Produce potable water</td>
</tr>
<tr>
<td>ENGR-VERT-3001</td>
<td>Fell standing timber</td>
</tr>
<tr>
<td>HQCO-CBRN-3003</td>
<td>Conduct operational decontamination</td>
</tr>
</tbody>
</table>
**MWSS T&R MANUAL**

**CHAPTER 3**

**COLLECTIVE EVENTS**

<table>
<thead>
<tr>
<th>PURPOSE</th>
<th>EVENT CODING</th>
<th>INDEX OF COLLECTIVE EVENTS</th>
<th>7000-LEVEL EVENTS</th>
<th>6000-LEVEL EVENTS</th>
<th>5000-LEVEL EVENTS</th>
<th>4000-LEVEL EVENTS</th>
<th>3000-LEVEL EVENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>3000</td>
<td>3001</td>
<td>3002</td>
<td>3003</td>
<td>3004</td>
<td>3005</td>
<td>3006</td>
<td>3007</td>
</tr>
<tr>
<td>3-2</td>
<td>3-2</td>
<td>3-3</td>
<td>3-7</td>
<td>3-18</td>
<td>3-40</td>
<td>3-78</td>
<td>3-145</td>
</tr>
</tbody>
</table>
3000. PURPOSE. Chapter 3 contains collective training events for the Marine Wing Support Squadron.

3001. EVENT CODING. Events in this T&R Manual are depicted with an up to 12-character, 3-field alphanumeric system, i.e. XXXX-XXXX-XXXX. This chapter utilizes the following methodology:

a. Field one. This field represents the unit. This chapter contains the following unit codes:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOPS</td>
<td>Airfield Operations Company</td>
</tr>
<tr>
<td>ENGR</td>
<td>Engineer Company</td>
</tr>
<tr>
<td>HQCO</td>
<td>Headquarters &amp; Service Company</td>
</tr>
<tr>
<td>MTCO</td>
<td>Motor Transportation Company</td>
</tr>
<tr>
<td>SQDR</td>
<td>Squadron</td>
</tr>
</tbody>
</table>

b. Field two. This field represents the functional/duty area. This chapter contains the following functional/duty areas:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABDG</td>
<td>Air Base Ground Defense</td>
</tr>
<tr>
<td>ADMN</td>
<td>Administration</td>
</tr>
<tr>
<td>AOPS</td>
<td>Airfield Operations</td>
</tr>
<tr>
<td>ARFF</td>
<td>Aircraft Rescue and Fire Fighting</td>
</tr>
<tr>
<td>CBRN</td>
<td>Chemical Biological Radiological Nuclear</td>
</tr>
<tr>
<td>CMOB</td>
<td>Countermobility</td>
</tr>
<tr>
<td>COMM</td>
<td>Communications</td>
</tr>
<tr>
<td>DEMO</td>
<td>Demolitions</td>
</tr>
<tr>
<td>EAF</td>
<td>Expeditionary Airfield</td>
</tr>
<tr>
<td>EOD</td>
<td>Explosive Ordnance Disposal</td>
</tr>
<tr>
<td>EOPS</td>
<td>Engineer Operations</td>
</tr>
<tr>
<td>EQIP</td>
<td>Heavy Equipment Operations</td>
</tr>
<tr>
<td>FOOD</td>
<td>Food Services</td>
</tr>
<tr>
<td>FUEL</td>
<td>Bulk Fuel</td>
</tr>
<tr>
<td>HORZ</td>
<td>Horizontal Construction</td>
</tr>
<tr>
<td>LIC</td>
<td>Licensing</td>
</tr>
<tr>
<td>MANT</td>
<td>Maintenance</td>
</tr>
<tr>
<td>MED</td>
<td>Medical</td>
</tr>
<tr>
<td>MOBL</td>
<td>Mobility</td>
</tr>
<tr>
<td>OPS</td>
<td>Operations</td>
</tr>
<tr>
<td>PLAN</td>
<td>Planning</td>
</tr>
<tr>
<td>RECN</td>
<td>Reconnaissance</td>
</tr>
<tr>
<td>SQDR</td>
<td>Squadron</td>
</tr>
<tr>
<td>SURV</td>
<td>Survivability</td>
</tr>
</tbody>
</table>
c. Field three. This field provides the level at which the event is accomplished and numerical sequencing of events. This chapter contains the following event levels:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7000</td>
<td>Squadron Level</td>
</tr>
<tr>
<td>6000</td>
<td>Company Level</td>
</tr>
<tr>
<td>5000</td>
<td>Platoon Level</td>
</tr>
<tr>
<td>4000</td>
<td>Squad/Section Level</td>
</tr>
<tr>
<td>3000</td>
<td>Crew Level</td>
</tr>
</tbody>
</table>

### 3002. INDEX OF COLLECTIVE EVENTS

<table>
<thead>
<tr>
<th>EVENT CODE</th>
<th>E-CODE</th>
<th>EVENT</th>
<th>PAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SQDR-OPS-7001</td>
<td>Y</td>
<td>Train AGS forces</td>
<td>3-7</td>
</tr>
<tr>
<td>SQDR-OPS-7002</td>
<td>Y</td>
<td>Command and Control AGS</td>
<td>3-9</td>
</tr>
<tr>
<td>SQDR-OPS-7003</td>
<td>Y</td>
<td>Establish AGS Operations Center (AGSOC)</td>
<td>3-9</td>
</tr>
<tr>
<td>SQDR-OPS-7004</td>
<td>Y</td>
<td>Conduct Base Recovery After Attack (BRAAT) operations</td>
<td>3-10</td>
</tr>
<tr>
<td>SQDR-OPS-7005</td>
<td>Y</td>
<td>Establish Base/Airfield security operations</td>
<td>3-11</td>
</tr>
<tr>
<td>SQDR-OPS-7006</td>
<td>Y</td>
<td>Conduct aircraft salvage operations</td>
<td>3-12</td>
</tr>
<tr>
<td>SQDR-PLAN-7001</td>
<td>Y</td>
<td>Plan AGS operations</td>
<td>3-14</td>
</tr>
<tr>
<td>SQDR-PLAN-7002</td>
<td>Y</td>
<td>Plan FOB operations</td>
<td>3-16</td>
</tr>
<tr>
<td>SQDR-PLAN-7003</td>
<td>Y</td>
<td>Plan Base/Airfield security operations</td>
<td>3-17</td>
</tr>
<tr>
<td>AOPS-ARFF-6001</td>
<td>Y</td>
<td>Plan Aircraft Rescue and Fire Fighting (ARFF) services</td>
<td>3-18</td>
</tr>
<tr>
<td>AOPS-ARFF-6002</td>
<td>Y</td>
<td>Conduct mass casualty operations</td>
<td>3-19</td>
</tr>
<tr>
<td>AOPS-EAF-6001</td>
<td>Y</td>
<td>Plan Expeditionary Airfield (EAF) services</td>
<td>3-20</td>
</tr>
<tr>
<td>AOPS-OPS-6001</td>
<td>Y</td>
<td>Train Air Operations personnel</td>
<td>3-21</td>
</tr>
<tr>
<td>AOPS-OPS-6002</td>
<td>Y</td>
<td>Provide Air Operations services</td>
<td>3-22</td>
</tr>
<tr>
<td>ENGR-OPS-6001</td>
<td>Y</td>
<td>Plan engineer operations</td>
<td>3-23</td>
</tr>
<tr>
<td>ENGR-OPS-6002</td>
<td>Y</td>
<td>Command and Control engineer forces</td>
<td>3-24</td>
</tr>
<tr>
<td>ENGR-OPS-6003</td>
<td>Y</td>
<td>Train Engineer company personnel</td>
<td>3-25</td>
</tr>
<tr>
<td>ENGR-OPS-6004</td>
<td>Y</td>
<td>Conduct general engineering operations</td>
<td>3-26</td>
</tr>
<tr>
<td>ENGR-OPS-6005</td>
<td>Y</td>
<td>Conduct countermobility operations</td>
<td>3-28</td>
</tr>
<tr>
<td>HQCO-ABGD-6001</td>
<td>Y</td>
<td>Conduct BDOC operations</td>
<td>3-29</td>
</tr>
<tr>
<td>HQCO-ABGD-6002</td>
<td>Y</td>
<td>Provide delay tactics against level III threats</td>
<td>3-30</td>
</tr>
<tr>
<td>HQCO-OPS-6001</td>
<td>Y</td>
<td>Train Headquarters &amp; Service company personnel</td>
<td>3-31</td>
</tr>
<tr>
<td>HQCO-OPS-6002</td>
<td>Y</td>
<td>Provide Headquarters &amp; Service company support</td>
<td>3-32</td>
</tr>
<tr>
<td>HQCO-OPS-6003</td>
<td>Y</td>
<td>Operate AGS Operations Center AGSOC</td>
<td>3-33</td>
</tr>
<tr>
<td>MTCO-OPS-6001</td>
<td>Y</td>
<td>Plan Motor Transportation company services</td>
<td>3-34</td>
</tr>
<tr>
<td>MTCO-OPS-6002</td>
<td>Y</td>
<td>Train Motor Transportation company personnel</td>
<td>3-36</td>
</tr>
<tr>
<td>MTCO-OPS-6003</td>
<td>Y</td>
<td>Provide Motor Transportation company services</td>
<td>3-37</td>
</tr>
<tr>
<td>MTCO-OPS-6004</td>
<td>Y</td>
<td>Establish a tactical motor pool</td>
<td>3-38</td>
</tr>
<tr>
<td>MTCO-OPS-6005</td>
<td>Y</td>
<td>Conduct convoy operations</td>
<td>3-39</td>
</tr>
<tr>
<td>Code</td>
<td>Y</td>
<td>Description</td>
<td>Level</td>
</tr>
<tr>
<td>----------</td>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>AOPS-AIFF-5001</td>
<td>Y</td>
<td>Provide ARFF services</td>
<td>3-40</td>
</tr>
<tr>
<td>AOPS-EAF-5001</td>
<td>Y</td>
<td>Provide EAF services</td>
<td>3-41</td>
</tr>
<tr>
<td>AOPS-FUEL-5001</td>
<td>Y</td>
<td>Conduct Forward Arming and Refueling Point (FARP)</td>
<td>3-42</td>
</tr>
<tr>
<td>AOPS-FUEL-5002</td>
<td>Y</td>
<td>Construct bulk fuel site</td>
<td>3-43</td>
</tr>
<tr>
<td>AOPS-FUEL-5003</td>
<td></td>
<td>Conduct tactical bulk fuel operations</td>
<td>3-44</td>
</tr>
<tr>
<td>ENGR-EQIP-5001</td>
<td>Y</td>
<td>Provide engineer equipment support</td>
<td>3-45</td>
</tr>
<tr>
<td>ENGR-HORIZ-5001</td>
<td>Y</td>
<td>Conduct horizontal construction</td>
<td>3-47</td>
</tr>
<tr>
<td>ENGR-HORIZ-5002</td>
<td>Y</td>
<td>Prepare site for construction</td>
<td>3-49</td>
</tr>
<tr>
<td>ENGR-MANT-5001</td>
<td>Y</td>
<td>Maintain engineer equipment</td>
<td>3-50</td>
</tr>
<tr>
<td>ENGR-MOBIL-5001</td>
<td>Y</td>
<td>Conduct Airfield Damage Repair (ADR)</td>
<td>3-51</td>
</tr>
<tr>
<td>ENGR-MOBIL-5002</td>
<td>Y</td>
<td>Conduct Tactical Landing Zones (TLZs)</td>
<td>3-53</td>
</tr>
<tr>
<td>ENGR-MOBIL-5003</td>
<td>Y</td>
<td>Conduct area clearance operations</td>
<td>3-54</td>
</tr>
<tr>
<td>ENGR-MOBIL-5004</td>
<td>Y</td>
<td>Construct expedient Helicopter Landing Zone (HLZ)</td>
<td>3-55</td>
</tr>
<tr>
<td>ENGR-OPS-5001</td>
<td></td>
<td>Conduct demolition operations</td>
<td>3-57</td>
</tr>
<tr>
<td>ENGR-RECON-5001</td>
<td>Y</td>
<td>Conduct engineer reconnaissance</td>
<td>3-58</td>
</tr>
<tr>
<td>ENGR-SURV-5001</td>
<td>Y</td>
<td>Construct survivability positions</td>
<td>3-59</td>
</tr>
<tr>
<td>ENGR-SURV-5002</td>
<td>Y</td>
<td>Harden existing structure(s)</td>
<td>3-61</td>
</tr>
<tr>
<td>ENGR-UTIL-5001</td>
<td>Y</td>
<td>Provide utilities support</td>
<td>3-62</td>
</tr>
<tr>
<td>ENGR-VERT-5001</td>
<td>Y</td>
<td>Conduct vertical construction</td>
<td>3-64</td>
</tr>
<tr>
<td>HQCO-ABGD-5001</td>
<td>Y</td>
<td>Conduct guard force operations</td>
<td>3-65</td>
</tr>
<tr>
<td>HQCO-ABGD-5002</td>
<td>Y</td>
<td>Conduct response force operations</td>
<td>3-66</td>
</tr>
<tr>
<td>HQCO-ABGD-5003</td>
<td>Y</td>
<td>Conduct tenant unit force operations</td>
<td>3-67</td>
</tr>
<tr>
<td>HQCO-ABGD-5004</td>
<td>Y</td>
<td>Establish provisional security forces</td>
<td>3-68</td>
</tr>
<tr>
<td>HQCO-COMM-5001</td>
<td>Y</td>
<td>Provide single channel radio services</td>
<td>3-69</td>
</tr>
<tr>
<td>HQCO-COMM-5002</td>
<td>Y</td>
<td>Provide telephone services</td>
<td>3-70</td>
</tr>
<tr>
<td>HQCO-COMM-5003</td>
<td>Y</td>
<td>Execute a cabling plan</td>
<td>3-71</td>
</tr>
<tr>
<td>HQCO-COMM-5004</td>
<td>Y</td>
<td>Provide data network services</td>
<td>3-71</td>
</tr>
<tr>
<td>HQCO-COMM-5005</td>
<td>Y</td>
<td>Provide a communications network in support of a command element</td>
<td>3-72</td>
</tr>
<tr>
<td>HQCO-MED-5001</td>
<td>Y</td>
<td>Provide Medical Services</td>
<td>3-73</td>
</tr>
<tr>
<td>HQCO-MED-5002</td>
<td></td>
<td>Perform mass casualty</td>
<td>3-74</td>
</tr>
<tr>
<td>HQCO-OPS-5001</td>
<td>Y</td>
<td>Conduct Minimal Operating Strip (MOS) selection</td>
<td>3-75</td>
</tr>
<tr>
<td>MTCC-OPS-5001</td>
<td>Y</td>
<td>Conduct convoy operations</td>
<td>3-77</td>
</tr>
<tr>
<td>MTCC-OPS-5002</td>
<td>Y</td>
<td>Establish a tactical motor pool</td>
<td>3-78</td>
</tr>
</tbody>
</table>

**4000-LEVEL**

<table>
<thead>
<tr>
<th>Code</th>
<th>Y</th>
<th>Description</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOPS-AIFF-4001</td>
<td>Y</td>
<td>Conduct structural firefighting operations</td>
<td>3-78</td>
</tr>
<tr>
<td>AOPS-AIFF-4002</td>
<td>Y</td>
<td>Conduct ARFF operations</td>
<td>3-79</td>
</tr>
<tr>
<td>AOPS-EAF-4001</td>
<td>Y</td>
<td>Provide aircraft arrestment capability</td>
<td>3-80</td>
</tr>
<tr>
<td>AOPS-EAF-4002</td>
<td>Y</td>
<td>Provide visual landing aids for terminal guidance of aircraft</td>
<td>3-81</td>
</tr>
<tr>
<td>AOPS-EAF-4003</td>
<td>Y</td>
<td>Provide airfield lighting/marking</td>
<td>3-82</td>
</tr>
<tr>
<td>AOPS-EAF-4004</td>
<td>Y</td>
<td>Conduct aircraft arrestment/recovery operations</td>
<td>3-82</td>
</tr>
<tr>
<td>AOPS-EAF-4005</td>
<td>Y</td>
<td>Conduct expedient Tactical Landing Zone (TLZ) site survey</td>
<td>3-83</td>
</tr>
<tr>
<td>AOPS-EOD-4001</td>
<td>Y</td>
<td>Provide Support to Other Government Agencies in support of the Homeland Defense Mission</td>
<td>3-84</td>
</tr>
<tr>
<td>AOPS-EOD-4002</td>
<td>Y</td>
<td>Conduct emergency decontamination operations</td>
<td>3-85</td>
</tr>
<tr>
<td>AOPS-FUEL-4001</td>
<td>Y</td>
<td>Maintain bulk fuel distribution site</td>
<td>3-86</td>
</tr>
</tbody>
</table>

14 July 2014

Enclosure (1)
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-CMOB-4001</td>
<td>Y Create an explosive obstacle</td>
<td>3-87</td>
</tr>
<tr>
<td>ENGR-CMOB-4002</td>
<td>Y Create a non-explosive obstacle/barriers</td>
<td>3-89</td>
</tr>
<tr>
<td>ENGR-CMOB-4003</td>
<td>Y Employ demolitions in support of countermobility</td>
<td>3-91</td>
</tr>
<tr>
<td>ENGR-EQIP-4001</td>
<td>Y Conduct Material Handling Equipment (MHE) operations</td>
<td>3-93</td>
</tr>
<tr>
<td>ENGR-HORZ-4001</td>
<td>Y Conduct horizontal construction</td>
<td>3-94</td>
</tr>
<tr>
<td>ENGR-MANT-4001</td>
<td>Y Maintain engineer equipment</td>
<td>3-96</td>
</tr>
<tr>
<td>ENGR-MOBL-4001</td>
<td>Y Conduct route improvement</td>
<td>3-97</td>
</tr>
<tr>
<td>ENGR-MOBL-4002</td>
<td>Y Repair runway crater</td>
<td>3-98</td>
</tr>
<tr>
<td>ENGR-MOBL-4003</td>
<td>Y Repair spall(s)</td>
<td>3-100</td>
</tr>
<tr>
<td>ENGR-MOBL-4004</td>
<td>Y Conduct dismounted route sweep operations</td>
<td>3-101</td>
</tr>
<tr>
<td>ENGR-MOBL-4005</td>
<td>Y Employ demolitions in support of mobility operations</td>
<td>3-103</td>
</tr>
<tr>
<td>ENGR-RECN-4001</td>
<td>Y Conduct site survey</td>
<td>3-104</td>
</tr>
<tr>
<td>ENGR-RECN-4002</td>
<td>Y Conduct zone reconnaissance</td>
<td>3-106</td>
</tr>
<tr>
<td>ENGR-RECN-4003</td>
<td>Y Conduct route reconnaissance</td>
<td>3-107</td>
</tr>
<tr>
<td>ENGR-RECN-4004</td>
<td>Y Conduct area reconnaissance</td>
<td>3-108</td>
</tr>
<tr>
<td>ENGR-SURV-4001</td>
<td>Y Harden existing structure</td>
<td>3-109</td>
</tr>
<tr>
<td>ENGR-SURV-4002</td>
<td>Y Construct field fortifications</td>
<td>3-111</td>
</tr>
<tr>
<td>ENGR-SURV-4003</td>
<td>Y Construct Vehicle Control Point (VCP)</td>
<td>3-112</td>
</tr>
<tr>
<td>ENGR-SURV-4004</td>
<td>Y Construct Entry Access Point (EAP)</td>
<td>3-114</td>
</tr>
<tr>
<td>ENGR-SURV-4005</td>
<td>Y Construct earth filled barrier/structure</td>
<td>3-116</td>
</tr>
<tr>
<td>ENGR-SURV-4006</td>
<td>Y Employ demolitions in support of survivability</td>
<td>3-117</td>
</tr>
<tr>
<td>ENGR-SURV-4007</td>
<td>Y Construct vehicle survivability position/revetment</td>
<td>3-118</td>
</tr>
<tr>
<td>ENGR-UTIL-4001</td>
<td>Y Provide tactical electrical power</td>
<td>3-120</td>
</tr>
<tr>
<td>ENGR-UTIL-4002</td>
<td>Y Provide potable water</td>
<td>3-121</td>
</tr>
<tr>
<td>ENGR-UTIL-4003</td>
<td>Y Provide tactical hygiene support</td>
<td>3-122</td>
</tr>
<tr>
<td>ENGR-VERT-4001</td>
<td>Y Construct manufactured steel structure</td>
<td>3-123</td>
</tr>
<tr>
<td>ENGR-VERT-4002</td>
<td>Y Construct wood frame structure</td>
<td>3-124</td>
</tr>
<tr>
<td>ENGR-VERT-4003</td>
<td>Y Construct concrete block structure</td>
<td>3-126</td>
</tr>
<tr>
<td>ENGR-VERT-4004</td>
<td>Y Construct timber structure</td>
<td>3-127</td>
</tr>
<tr>
<td>ENGR-VERT-4005</td>
<td>Y Repair existing structures</td>
<td>3-128</td>
</tr>
<tr>
<td>ENGR-VERT-4006</td>
<td>Y Construct concrete structure</td>
<td>3-130</td>
</tr>
<tr>
<td>ENGR-VERT-4007</td>
<td>Y Construct expedient drainage structure</td>
<td>3-131</td>
</tr>
<tr>
<td>HQCO-ABGD-4001</td>
<td>Y Implement security measures</td>
<td>3-132</td>
</tr>
<tr>
<td>HQCO-ABGD-4002</td>
<td>Y Employ Force Protection Conditions (FFCON)</td>
<td>3-133</td>
</tr>
<tr>
<td>HQCO-ABGD-4003</td>
<td>Y Employ security objectives</td>
<td>3-134</td>
</tr>
<tr>
<td>HQCO-ABGD-4004</td>
<td>Y Employ security principles</td>
<td>3-135</td>
</tr>
<tr>
<td>HQCO-ABGD-4005</td>
<td>Y Employ security tasks</td>
<td>3-135</td>
</tr>
<tr>
<td>HQCO-ABGD-4006</td>
<td>Y Employ security and control procedures</td>
<td>3-136</td>
</tr>
<tr>
<td>HQCO-ABGD-4007</td>
<td>Y Process detained personnel</td>
<td>3-138</td>
</tr>
<tr>
<td>HQCO-COMM-4001</td>
<td>Y Establish data network services</td>
<td>3-139</td>
</tr>
<tr>
<td>HQCO-COMM-4002</td>
<td>Y Install trunked telephony services</td>
<td>3-140</td>
</tr>
<tr>
<td>HQCO-MED-4001</td>
<td>Y Coordinate patient movement</td>
<td>3-141</td>
</tr>
<tr>
<td>HQCO-OPS-4001</td>
<td>Y Conduct Damage Assessment Team (DAT) activities</td>
<td>3-141</td>
</tr>
<tr>
<td>HQCO-OPS-4002</td>
<td>Y Conduct Damage Assessment and Response Team (DART) activities</td>
<td>3-142</td>
</tr>
<tr>
<td>MTCO-LIC-4001</td>
<td>Y Provide a licensing program</td>
<td>3-143</td>
</tr>
<tr>
<td>MTCO-OPS-4001</td>
<td>Y</td>
<td>Conduct convoy operations</td>
</tr>
<tr>
<td>---------------</td>
<td>---</td>
<td>---------------------------</td>
</tr>
<tr>
<td></td>
<td>3000-LEVEL</td>
<td></td>
</tr>
<tr>
<td>AOPS-EOD-3001</td>
<td>Y</td>
<td>Respond to an aircraft incident</td>
</tr>
<tr>
<td>AOPS-EOD-3002</td>
<td>Y</td>
<td>Conduct CBRN Response Operations</td>
</tr>
<tr>
<td>AOPS-EOD-3003</td>
<td>Y</td>
<td>Conduct disposal of explosive components</td>
</tr>
<tr>
<td>AOPS-EOD-3004</td>
<td>Y</td>
<td>Conduct post blast analysis</td>
</tr>
<tr>
<td>AOPS-EOD-3005</td>
<td>Y</td>
<td>Conduct sensitive site exploitation</td>
</tr>
<tr>
<td>AOPS-EOD-3006</td>
<td>Y</td>
<td>Conduct unexploded explosive ordnance (UXO) response operations</td>
</tr>
<tr>
<td>AOPS-EOD-3007</td>
<td>Y</td>
<td>Conduct full spectrum EOD operations</td>
</tr>
<tr>
<td>AOPS-EOD-3008</td>
<td>Y</td>
<td>Conduct IED operations</td>
</tr>
<tr>
<td>AOPS-EOD-3009</td>
<td>Y</td>
<td>Conduct WMD operations</td>
</tr>
<tr>
<td>AOPS-EOD-3010</td>
<td>Y</td>
<td>Conduct conventional explosive ordnance operations</td>
</tr>
<tr>
<td>AOPS-EOD-3011</td>
<td>Y</td>
<td>Provide nuclear ordnance operations</td>
</tr>
<tr>
<td>AOPS-EOD-3012</td>
<td></td>
<td>Conduct tactical combat casualty care</td>
</tr>
<tr>
<td>AOPS-FUEL-3001</td>
<td></td>
<td>Maintain bulk fuel distribution site</td>
</tr>
<tr>
<td>AOPS-FUEL-3002</td>
<td></td>
<td>Conduct aircraft fueling operations</td>
</tr>
<tr>
<td>AOPS-FUEL-3003</td>
<td></td>
<td>Conduct mobile fueling operations</td>
</tr>
<tr>
<td>ENGR-CMOB-3001</td>
<td>Y</td>
<td>Construct demolition obstacles</td>
</tr>
<tr>
<td>ENGR-CMOB-3002</td>
<td>Y</td>
<td>Construct field expedient obstacle</td>
</tr>
<tr>
<td>ENGR-CMOB-3003</td>
<td></td>
<td>Employ explosive obstacles</td>
</tr>
<tr>
<td>ENGR-CMOB-3004</td>
<td>Y</td>
<td>Build non-explosive obstacles</td>
</tr>
<tr>
<td>ENGR-EQIP-3001</td>
<td></td>
<td>Provide crane support</td>
</tr>
<tr>
<td>ENGR-EQIP-3002</td>
<td></td>
<td>Provide Material Handling Equipment (MHE) support</td>
</tr>
<tr>
<td>ENGR-EQIP-3003</td>
<td></td>
<td>Provide earthmoving equipment support</td>
</tr>
<tr>
<td>ENGR-EQIP-3004</td>
<td></td>
<td>Conduct runway sweeping operations</td>
</tr>
<tr>
<td>ENGR-HORZ-3001</td>
<td></td>
<td>Conduct dust abatement</td>
</tr>
<tr>
<td>ENGR-MANT-3001</td>
<td>Y</td>
<td>Maintain engineer equipment</td>
</tr>
<tr>
<td>ENGR-MANT-3002</td>
<td></td>
<td>Employ maintenance team</td>
</tr>
<tr>
<td>ENGR-MANT-3003</td>
<td></td>
<td>Maintain tactical power distribution system(s)</td>
</tr>
<tr>
<td>ENGR-MANT-3004</td>
<td>Y</td>
<td>Maintain water purification equipment</td>
</tr>
<tr>
<td>ENGR-MANT-3005</td>
<td>Y</td>
<td>Maintain hygiene equipment</td>
</tr>
<tr>
<td>ENGR-MANT-3006</td>
<td></td>
<td>Maintain refrigeration system(s)</td>
</tr>
<tr>
<td>ENGR-MANT-3007</td>
<td></td>
<td>Maintain Environmental Control Units (ECU)</td>
</tr>
<tr>
<td>ENGR-RECN-3001</td>
<td>Y</td>
<td>Assess damage to airfield surfaces</td>
</tr>
<tr>
<td>ENGR-RECN-3002</td>
<td>Y</td>
<td>Assess damage to airfield facilities and structures</td>
</tr>
<tr>
<td>ENGR-RECN-3003</td>
<td></td>
<td>Survey site for construction</td>
</tr>
<tr>
<td>ENGR-RECN-3004</td>
<td></td>
<td>Conduct cache sweep</td>
</tr>
<tr>
<td>ENGR-RECN-3005</td>
<td>Y</td>
<td>Conduct obstacle reconnaissance</td>
</tr>
<tr>
<td>ENGR-RECN-3006</td>
<td>Y</td>
<td>Conduct bridge reconnaissance</td>
</tr>
<tr>
<td>ENGR-RECN-3007</td>
<td>Y</td>
<td>Conduct road reconnaissance</td>
</tr>
<tr>
<td>ENGR-SURV-3001</td>
<td>Y</td>
<td>Construct vehicle survivability position/revetment</td>
</tr>
<tr>
<td>ENGR-SURV-3002</td>
<td>Y</td>
<td>Construct individual fighting position</td>
</tr>
<tr>
<td>ENGR-SURV-3003</td>
<td>Y</td>
<td>Construct crew served weapons position</td>
</tr>
<tr>
<td>ENGR-SURV-3004</td>
<td>Y</td>
<td>Construct overhead cover</td>
</tr>
<tr>
<td>ENGR-SURV-3005</td>
<td></td>
<td>Construct triggering screen</td>
</tr>
<tr>
<td>ENGR-SURV-3006</td>
<td>Y</td>
<td>Construct shelter/bunkers</td>
</tr>
</tbody>
</table>
3003. 7000-LEVEL EVENTS

**SUPPORTED MET (S):**

MCT 4.6.3     MCT 5.3.2.12     MCT 5.3.3.3

---

<table>
<thead>
<tr>
<th>Code</th>
<th>Item</th>
<th>NMI</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-SURV-3007</td>
<td><strong>Y</strong> Construct vehicle fighting position</td>
<td>3-193</td>
</tr>
<tr>
<td>ENGR-UTIL-3001</td>
<td><strong>Y</strong> Establish tactical power distribution system</td>
<td>3-194</td>
</tr>
<tr>
<td>ENGR-UTIL-3002</td>
<td>Provide floodlight support</td>
<td>3-195</td>
</tr>
<tr>
<td>ENGR-UTIL-3003</td>
<td><strong>Y</strong> Establish power generation site(s)</td>
<td>3-196</td>
</tr>
<tr>
<td>ENGR-UTIL-3004</td>
<td>Wire a structure for electricity</td>
<td>3-197</td>
</tr>
<tr>
<td>ENGR-UTIL-3005</td>
<td>Provide Environmental Control Unit (ECU) Support</td>
<td>3-198</td>
</tr>
<tr>
<td>ENGR-UTIL-3006</td>
<td><strong>Y</strong> Provide refrigeration support</td>
<td>3-199</td>
</tr>
<tr>
<td>ENGR-UTIL-3007</td>
<td><strong>Y</strong> Produce potable water</td>
<td>3-200</td>
</tr>
<tr>
<td>ENGR-UTIL-3008</td>
<td>Store potable water</td>
<td>3-201</td>
</tr>
<tr>
<td>ENGR-UTIL-3009</td>
<td>Establish water distribution site</td>
<td>3-201</td>
</tr>
<tr>
<td>ENGR-UTIL-3010</td>
<td>Provide laundry services</td>
<td>3-202</td>
</tr>
<tr>
<td>ENGR-UTIL-3011</td>
<td>Provide shower services</td>
<td>3-203</td>
</tr>
<tr>
<td>ENGR-UTIL-3012</td>
<td>Install plumbing in a structure</td>
<td>3-204</td>
</tr>
<tr>
<td>ENGR-VERT-3001</td>
<td><strong>Y</strong> Fell standing timber</td>
<td>3-205</td>
</tr>
<tr>
<td>HQCO-ABGD-3001</td>
<td><strong>Y</strong> Employ a medium machinegun team</td>
<td>3-206</td>
</tr>
<tr>
<td>HQCO-ABGD-3002</td>
<td><strong>Y</strong> Employ a heavy machinegun team</td>
<td>3-207</td>
</tr>
<tr>
<td>HQCO-ABGD-3003</td>
<td>Engage targets with a grenade launcher</td>
<td>3-208</td>
</tr>
<tr>
<td>HQCO-CBRN-3001</td>
<td><strong>Y</strong> Conduct unit Individual Protective Equipment (IPE) confidence exercise</td>
<td>3-209</td>
</tr>
<tr>
<td>HQCO-CBRN-3002</td>
<td><strong>Y</strong> Conduct CBRN center operations</td>
<td>3-210</td>
</tr>
<tr>
<td>HQCO-CBRN-3003</td>
<td><strong>Y</strong> Conduct operational decontamination</td>
<td>3-211</td>
</tr>
<tr>
<td>HQCO-COMM-3001</td>
<td>Establish Video Teleconferencing (VTC) services</td>
<td>3-213</td>
</tr>
<tr>
<td>HQCO-COMM-3002</td>
<td>Establish a single channel radio site</td>
<td>3-213</td>
</tr>
<tr>
<td>HQCO-FOOD-3001</td>
<td>Monitor quality control program</td>
<td>3-214</td>
</tr>
<tr>
<td>HQCO-FOOD-3002</td>
<td><strong>Y</strong> Conduct technical inspections</td>
<td>3-215</td>
</tr>
<tr>
<td>HQCO-FOOD-3003</td>
<td><strong>Y</strong> Embark equipment</td>
<td>3-215</td>
</tr>
<tr>
<td>HQCO-FOOD-3004</td>
<td><strong>Y</strong> Establish an expeditionary feeding site</td>
<td>3-216</td>
</tr>
<tr>
<td>HQCO-GCEM-3001</td>
<td>Provide field level maintenance support for cables</td>
<td>3-216</td>
</tr>
<tr>
<td>HQCO-GCEM-3002</td>
<td>Provide field level maintenance support for ground radio equipment</td>
<td>3-217</td>
</tr>
<tr>
<td>HQCO-GCEM-3003</td>
<td>Provide field level maintenance support for telecommunications equipment</td>
<td>3-218</td>
</tr>
<tr>
<td>HQCO-GCEM-3004</td>
<td>Provide field level maintenance support for IT equipment</td>
<td>3-219</td>
</tr>
<tr>
<td>HQCO-MED-3001</td>
<td><strong>Y</strong> Receive casualties</td>
<td>3-220</td>
</tr>
<tr>
<td>HQCO-MED-3002</td>
<td><strong>Y</strong> Conduct temporary casualty holding</td>
<td>3-221</td>
</tr>
<tr>
<td>HQCO-MED-3003</td>
<td><strong>Y</strong> Perform medical care</td>
<td>3-221</td>
</tr>
<tr>
<td>HQCO-MED-3004</td>
<td><strong>Y</strong> Conduct casualty evacuation</td>
<td>3-222</td>
</tr>
<tr>
<td>HQCO-MED-3005</td>
<td>Provide Immunizations</td>
<td>3-223</td>
</tr>
<tr>
<td>MTCO-MANT-3001</td>
<td>Maintain motor transport equipment</td>
<td>3-223</td>
</tr>
<tr>
<td>MTCO-OPS-3001</td>
<td>Conduct recovery operations</td>
<td>3-233</td>
</tr>
<tr>
<td>MTCO-OPS-3002</td>
<td>Conduct ground fueling operations</td>
<td>3-226</td>
</tr>
</tbody>
</table>

---

**Train AGS forces**

**Supported MET (S):** MCT 4.6.3     MCT 5.3.2.12     MCT 5.3.3.3

---

**Enclosure (1)**
EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Train AGS forces in order to sustain proficiency in the functional areas for airfield and air base operations within the MWSS.

CONDITION: Given a MWSS, approved Mission Essential Task List (METL), commander's training guidance, training plans, training schedules, resources and trainers.

STANDARD: To ensure that all requirements identified in event components are addressed in sequence so all training evolutions achieve desired results in accordance with the references.

EVENT COMPONENTS:
2. Identify collective training standards.
3. Conduct training assessment.
4. Determine training strategy.
5. Develop training guidance.
6. Develop a long range training plan.
7. Develop a mid-range training plan.
8. Develop a short-range training plan.
9. Develop weekly training schedules.
10. Develop lesson materials.
11. Develop training materials.
13. Conduct training.
14. Evaluate training.
15. Evaluate unit training plans.

CHAINED EVENTS:
AOPS-OPS-6001  ENGR-OPS-6003  HQCO-OPS-6003
MTCO-OPS-6003

REFERENCES:
1. MCO 1553.3 Unit Training Management (UTM) Program
2. MCRP 3-0A Unit Training Management Guide
3. MCRP 3-0B How to Conduct Training
4. MCWP 3-21.1 Aviation Ground Support
5. MCWP 5-1 Marine Corps Planning Process (MCPP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17330 Covered Training Area
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17413 Field Training Area
Facility Code 17420 Maneuver/Training Area, Heavy Forces

EQUIPMENT: Equipment used by CS and CSS occupational fields in support of the MWSS, i.e. EAF, ARFF, engineers, motor transportation, communications, Explosive Ordnance Disposal (EOD), food services, health services, and
Chemical, Biological, Radiological, Nuclear (CBRN), and C4I Assets.

**UNITS/PERSOONEL:** Personnel from CS and CSS occupational fields in support of the MWSS, i.e. EAF, ARFF, engineers, motor transportation, communications, EOD, food services, health services, CBRN and C4I Assets.

**MISCELLANEOUS:**

**SPECIAL PERSONNEL CERTS:** Any and all required certifications and or licenses necessary to perform, conduct, or validate the event.

**SQDR-OPS-7002:** Command and Control AGS

**SUPPORTED MET(S):**

- MCT 4.6.3
- MCT 5.3.2.12
- MCT 5.3.3.3
- MCT 6.1.1.3.4
- MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Exercise authority and direction over assigned forces in the planning, execution, support, and accomplishment of a mission.

**CONDITION:** Given an order and commander's intent.

**STANDARD:** To ensure operations are conducted in support of the ACE commander's intent.

**EVENT COMPONENTS:**

1. Establish AGS Operations Center (AGSOC) and communications with higher, adjacent, supported and subordinate units.
2. Command assigned units.
3. Maintain the MWSS Common Operational Picture (COP).
4. Direct MWSS operations and initiate appropriate actions.
5. Coordinate MWSS operations and initiate appropriate actions.
6. Track Commander's Critical Information Requirements (CCIR).
7. Maintain status of available resources.
8. Integrate reconnaissance products with intelligence effort.
9. Make recommendations to ACE commander on the employment of assigned forces.

**CHAINED EVENTS:** ENGR-OPS-6004

**REFERENCES:**

1. MCDP 6 Command and Control
2. MCWP 3-21.1 Aviation Ground Support
3. MCWP 3-40.1 MAGTF Command and Control
4. MCWP 5-1 Marine Corps Planning Process (MCP)

**SQDR-OPS-7003:** Establish AGS Operations Center (AGSOC)
SUPPORTED MET(S):
MCT 4.6.3       MCT 5.3.2.12       MCT 5.3.3.3
MCT 6.1.1.3.4   MCT 6.3.3

EVALUATION-CODED: YES        SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: While deployed, the MWSS operates from an AGSOC. The AGSOC is the nucleus for the coordination and execution of AGS services and functions. From the AGSOC, the MWSS commander supervises MWSS companies and manages squadron activities. The squadron S-3 runs the AGSOC, which includes representation from the other squadrons staff and operational sections (i.e., S-1, S-2, S-4, S-6, CBRN defense, airfield operations, engineer operations, and MT operations). The S-3 must have the capability to receive, prioritize, assign, and track AGS activities. To respond to changes in operations, tempo, and environment, the AGSOC must be flexible. It functions much like the Marine Logistics Group (MLG), Combat Service Support Operations Center (CSSOC). The AGSOC processes AGS requests from customers and tasks subordinate elements to respond. It manages the AGS effort and provides the center of control for other activities important to operations.

CONDITION: Given a mission requirement, commander's intent, personnel, equipment, tools and the references.

STANDARD: To ensure operations are conducted in support of the ACE commander's intent.

EVENT COMPONENTS:
1. Provide administrative support actions through the S-1.
2. Provide intelligence operations through the S-2.
3. Provide logistic support operations through the S-4.
4. Establish and maintain communication and information systems support through the S-6.
5. Coordinate Airfield operations.
6. Coordinate ABGD operations.
7. Coordinate BRAAT operations.
8. Coordinate ADR operations.
9. Coordinate FARP operations.
10. Coordinate CBRN defense operations.
11. Coordinate EOD operations.

CHAINED EVENTS:
AOPS-OPS-6001 ENGR-OPS-6003 HQCO-OPS-6001
MTCO-OPS-6002

REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support

SQDR-OPS-7004: Conduct Base Recovery After Attack (BRAAT) operations

SUPPORTED MET(S):
MCT 5.3.2.12       MCT 5.3.3.3       MCT 6.3.3
DESCRIPTION: BRAAT activities center on restoring an installations mission capabilities after an enemy attack. The ACE must repair damage quickly to be capable of supporting aircraft launch and recovery operations.

CONDITION: Given a mission requirement, commander's intent, personnel, equipment and references.

STANDARD: To restore the mission capability of the air base.

EVENT COMPONENTS:
1. Execute command and control of BRAAT operations.
2. Conduct BRAAT planning.
3. Restore essential communications.
4. Conduct damage assessment of the airfield and facilities.
5. Conduct EOD actions.
7. Conduct airfield damage repair.
8. Employ aircraft arresting gear systems.
10. Restore airfield lighting.
11. Conduct CBRN contamination monitoring.
12. Conduct mass casualty operations.
13. Provide medical services.
15. Provide emergency utilities.
16. Conduct firefighting operations.
17. Conduct debris cleanup.

CHAINED EVENTS:
AOES-ARFF-6002 AOPS-OPS-6001 ENGR-OPS-6002
HQCO-MED-5002 HQCO-OPS-6001 HQCO-OPS-6002
MTCO-OPS-6002 MTCO-OPS-6005

REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Organization of ABGD is situation dependent and should incorporate the fundamentals of JRA security and MAGTF RAS. The ACE should have sufficient ground defense to provide the appropriate response to threat Levels I and II with limited reliance on GCE assistance or other outside augmentation. ACE ABGD requires GCE augmentation in Level III threat situations. ABGD forces should include standing, mobile, and response forces to ensure round-the-clock force protection and unimpeded aviation operations.
The organization of ABGD should be proportional to the threat while limiting the impact on the ACEs ability to provide the six functions of Marine aviation to support the MAGTF.

**CONDITION:** Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

**STANDARD:** To provide rear area security within the designed criteria and the commander's intent.

**EVENT COMPONENTS:**
1. Review the order.
2. Establish BDOC.
3. Establish command and control.
4. Establish communications.
5. Maintain communications.
6. Employ the fundamentals of area security.
7. Assess threat level.
8. Conduct intelligence preparation of rear area/air base.
9. Employ appropriate security force for the security operations.

**CHAINED EVENTS:**
HQCO-ABGD-6001  HQCO-ABGD-6002  HQCO-OPS-6002

**REFERENCES:**
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17330 Covered Training Area
Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** Equipment used by various occupational fields i.e., engineers; motor transportation; communications; explosive ordnance disposal; food services; health services; chemical, biological, radiological, nuclear (CBRN), and individual and squad weapons.

**SUPPORT MET(S):**
MCT 5.3.3.3  MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** This event encompasses measures taken to salvage aircraft that are incapable of flying due to crash or mechanical failure. Salvage of aircraft can be required within the established perimeter of the FOB, or
outside of the perimeter (AO). Personnel involved in the salvage efforts must be familiar with established procedures and adequately equipped for safe operations in the given environment. Pre-mishap plans will ensure all personnel involved are familiar with each T/M/S and their respective hazards. If salvage operations include the recovery of victim remains, proper care and handling of remains must be coordinated with mortuary affairs. Every effort must be taken to document the incident site and preserve potential evidence for mishap investigators. MWSS salvage and convoy personnel should include MT, engineers, communications, ARFF, and EOD.

**CONDITION:** Given a mission requirement, pre-mishap plan, pre-salvage plan, pertinent essential aircraft information, commander's intent, personnel, equipment and tools and the references.

**STANDARD:** To ensure aircraft and associated equipment is accounted for.

**EVENT COMPONENTS:**
1. Review pre-mishap plan.
2. Review the mission.
3. Task Organize.
4. Review pertinent essential aircraft information.
5. Conduct liaison with internal/external units.
6. Coordinate LZ/route clearance and coverage techniques.
7. Conduct supporting unit planning/coordination.
8. Employ internal/external communications.
9. Employ convoy security.
10. Execute movement to mishap site.
11. Deploy security force at mishap site.
12. Employ MWSS personnel and equipment as required.
13. Apply general safety considerations.
14. Review mishap plan for salvage operations, if required.
15. Develop salvage plan, if applicable.
16. Brief salvage plan to key personnel, if applicable.
17. Conduct salvage using appropriate method, if applicable.
18. Egress from mishap site with all resources.
19. Send and receive required reports to required personnel.
20. Conduct debrief.

**CHAINED EVENTS:**

<table>
<thead>
<tr>
<th>AOPS-ARFF-4002</th>
<th>AOPS-EOD-3001</th>
<th>AOPS-EOD-3007</th>
</tr>
</thead>
<tbody>
<tr>
<td>AOPS-OPS-6002</td>
<td>ENGR-EQIP-5001</td>
<td>ENGR-OPS-5001</td>
</tr>
<tr>
<td>ENGR-OPS-6004</td>
<td>HQCO-COMM-5001</td>
<td>HQCO-MED-5001</td>
</tr>
<tr>
<td>HQCO-OPS-6002</td>
<td>MTCO-OPS-6005</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES:**
1. MCRP 4-11.3F Convoy Operations Handbook
2. MCRP 4-11.3H Multi-service Tactics, Techniques, and Procedures for Tactical Convoy Operations
3. MCWP 3-17 Engineering Operations
4. MCWP 3-21.1 Aviation Ground Support
5. MCWP 4-11.3 Transportation Operations
6. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual
7. NAVAIR 00-80R-14-1 NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual
8. NAVAIR 00-80R-20 NATOPS U.S. Navy Aircraft Crash & Salvage Operations Manual (Ashore)
9. SOP Standard Operating Procedures (SOP)
10. TM 11240-0D Principal Technical Characteristics of U.S. Marine Corps Motor Transportation Equipment

**SUPPORT REQUIREMENTS:**

**UNITS/PERSOONNEL:** ARFF, EOD, MT, MHE, Combat engineer, Surveyor, Security personnel, and range sustainment areas.

**SQDR-PLAN-7001:** Plan AGS operations

**SUPPORTED MET(S):**

<table>
<thead>
<tr>
<th>MCT 4.6.3</th>
<th>MCT 5.3.2.12</th>
<th>MCT 5.3.3.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 6.1.1.3.4</td>
<td>MCT 6.3.3</td>
<td></td>
</tr>
</tbody>
</table>

**EVALUATION-CODED:** YES

**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Conduct planning with focus on airfield and air base support functions. The functions are those activities and tasks necessary to establish and operate the flight line at a Forward Operating Base (FOB). Main air base, air facility, air site, and air point are the four FOB classifications from which the ACE will operate. The four airfield support functions are: Expeditionary Airfield services (EAF), Aircraft Rescue and Fire Fighting (ARFF), aviation and ground refueling and Explosive Ordnance Disposal (EOD). Planning should also be focused on the air base support functions. The functions are those activities and tasks necessary to establish and maintain air base operations, to include base camp operations. The air base support includes: Air base commandant functions, internal airfield communications, essential engineer services, transportation services, field messing facilities, routine and emergency sick call and aviation medical functions, organic and support unit personnel training, Chemical, Biological, Radiological, Nuclear (CBRN) and Air Base Ground Defense (ABGD). Planning should be accomplished in accordance with the Marine Corps Planning Process (MCPP).

**CONDITION:** Given higher commander's initial guidance, battle space area evaluation, and a warning or operations order.

**STANDARD:** To identify the best use of personnel and equipment that is consistent with the MWSS capability and ACE requirement for the mission.

**EVENT COMPONENTS:**

1. Analyze the mission and available information to identify inherent Air Combat Element (ACE) and AGS requirements.
2. Review the ACE G/S-2 intelligence estimate to gather all available intelligence on the enemy and information on the area.
3. Establish logistics coordination with ACE planners.
4. Develop, in coordination with the ACE planners, a final AGS estimate of supportability comparing AGS related factors influencing each proposed ACE tactical course of action.
5. Utilize existing plans, SOPs, and lessons learned to develop a concept of logistics/AGS.
6. Develop consumption factors in coordination with the ACE planners.
7. Compute detailed logistic requirements for each phase of the operation, based on types of support and quantities of supplies required.
8. Recommend a priority of support by type and unit as required by the ACE commander.
9. Identify resource deficiencies in coordination with ACE and Marine Air Ground Task Force (MAGTF) planners, other service agencies, for host nation support agreements or inter-service sources of AGS.
10. Coordinate liaison with host nation for building base camp at existing facilities if applicable.
11. Review Memorandum Of Agreement (MOA)/Status Of Forces Agreement (SOFA) requirements for establishing an airfield using existing facilities, if applicable.
12. Coordinate the planned use of Forward Operating Base (FOB) areas and facilities with ACE planners.
13. Identify AGS shortfalls, problems, and limitations for consideration by the ACE commander.
14. Develop logistical plans to sustain required level of AGS operations.
15. Coordinate with ACE planners and the MAGTF movement control center during the development of the MAGTF transportation plan.
16. Review embarkation data to ensure combat loading has been achieved, as necessary.

**CHAINED EVENTS:**

AOPS-ARFF-6001  AOPS-EAF-6001  ENGR-OPS-6001

MTCO-OPS-6001

**RELATED EVENTS:**

0402-ENG-1001  0402-GEN-1002  0402-HSS-1003
0402-MNT-1004  0402-OPS-2005  0402-SUP-1013
0402-SVC-1014  0402-TRAN-1015  0430-EXCU-2101
0430-EXCU-2103  0430-EXCU-2104  0430-EXCU-2206
0430-LOGR-2904  0430-PLAN-2102  0431-EXCU-2304
0431-LOGR-1501  0431-LOGR-1502  0431-LOGR-2503
0431-PLAN-1801  0431-PLAN-2802  0491-ENG-2001
0491-OPS-2008  0491-SUP-2009  0491-SVC-2010
0491-TRAN-2011

**REFERENCES:**

1. MCO 10110.14M Marine Corps Food Service and Subsistence Program
2. MCWP 3-17 Engineering Operations
3. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal
4. MCWP 3-21.1 Aviation Ground Support
5. MCWP 3-37 MAGTF Nuclear, Biological, and Chemical Defense Operations
6. MCWP 3-40.3 MAGTF Communications System
7. MCWP 4-11 Tactical-Level Logistics
8. MCWP 4-11.1 Health Service Support Operations
9. MCWP 4-11.3 Transportation Operations
10. MCWP 4-11.4 Maintenance Operations
11. MCWP 4-11.8 Services in an Expeditionary Environment
12. MCWP 4-26 Supply Operations
13. MCWP 5-1 Marine Corps Planning Process (MCPP)

**SQDR-PLAN-7002:** Plan FOB operations

**SUPPORTED MET(S):**

<table>
<thead>
<tr>
<th>MET Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 4.6.3</td>
<td>MCT 5.3.2.12</td>
</tr>
</tbody>
</table>

**EVALUATION-CODED:** YES

**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** FOBs are established in support of ACE mission requirements. Planning entails problem framing and development of an Airbase Master Plan specific to the area of operations as well as identification of necessary MWSS T/O&E. The FOBs are classified in relation to their size, location and characteristics in the form of airfield services, logistical supportability and maintenance capability. Main air base, air facility, air site, and air point are the four FOB classifications from which the ACE will operate.

**CONDITION:** Provided with ACE mission requirements.

**STANDARD:** that meets established criteria and mission requirements.

**EVENT COMPONENTS:**

1. Assess potential FOB site through participation in the Survey Liaison Reconnaissance Party (SLRP) operations.
2. Determine implied tasks through problem framing.
3. Develop Air Base Master Plan (ABMP).
4. Develop airfield layout.
5. Develop base camp layout.
6. Coordinate planning with other units operating from the FOB.
7. Task organize all MWSS companies.
8. Develop key information (mission, tasks and T/O&E) for advance party elements.
9. Develop key information (mission, tasks and T/O&E) for main body.
10. Develop key information (mission, tasks and T/O&E) for follow on echelons.

**CHAINED EVENTS:**

| AOPS-ARFF-6001 | AOPS-EAF-6001 | ENGR-OPS-6001 | MTC0-OPS-6001 |

**REFERENCES:**

1. MCWP 3-21.1 Aviation Ground Support
2. MCWP 5-1 Marine Corps Planning Process (MCPP)
3. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information
4. NAVAIR 00-80R-20 NATOPS U.S. Navy Aircraft Crash & Salvage Operations Manual (Ashore)
5. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
6. NAVAIRINST 13800.12B Certification of Expeditionary Airfield AM-2 Mat Installations, Aircraft Recovery Equipment, Visual/Optical Landing Aids, and Marking/Lighting Systems
7. NAVAIRINST 13800.13B Certification of Shore-Based Aircraft Recovery Equipment and Visual/Optical Landing Aids Systems
**SQDR-PLAN-7003:** Plan Base/Airfield security operations

**SUPPORTED MET(S):**
MCT 5.3.2.12  MCT 5.3.3.3  MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Organization of ABGD is situation dependent and should incorporate the fundamentals of Joint Rear Area (JRA) security and MAGTF Rear Area Security (RAS). The ACE should have sufficient ground defense to provide the appropriate response to threat Levels I and II with limited reliance on GCE assistance or other outside augmentation. ACE ABGD requires Ground Combat Element (GCE) augmentation in Level III threat situations. ABGD forces should include standing, mobile, and response forces to ensure round-the-clock force protection and unimpeded aviation operations. The organization of ABGD should be proportional to the threat while limiting the impact on the ACE's ability to provide the six functions of Marine aviation to support the MAGTF.

**CONDITION:** Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

**STANDARD:** To provide rear area security within the designed criteria.

**EVENT COMPONENTS:**
1. Review the order.
2. Liaison with the MAGTF Rear Area Security Coordinator (RASC).
3. Perform Tactical Security Officer (TSO) responsibilities.
4. Participate in the MAGTF RAS planning.
5. Integrate ABGD into the MAGTF RAS planning.
6. Coordinate command and control.
7. Identify the fundamentals of area security.
8. Identify threat levels.
9. Assess threat levels.
11. Conduct intelligence preparation of rear area/air base.
13. Identify appropriate security force for the security operations.

**CHAINED EVENTS:**
ENGRCMOB-4002  ENGR-CMOB-4003  ENGR-OPS-6004
ENGROPS-6005  ENGR-SURV-5001  ENGR-SURV-5002
HQCO-ABGD-6001  HQCO-ABGD-6002  HQCO-OPS-6002

**REFERENCES:**
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-17.5 Combined Arms Countermobility Operations
4. MCWP 3-17.6 Survivability
5. MCWP 3-21.1 Aviation Ground Support
6. MCWP 3-41.1 Rear Area Operations
3004. 6000-LEVEL EVENTS

AOPS-ARFF-6001: Plan Aircraft Rescue and Fire Fighting (ARFF) services

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.2.12  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Provide ARFF services in support of airfield operations (AOPS) at FOB and support installations. Services include: Fire Suppression and extinguishment on aircraft and structures, casualty extrication and rescue, basic emergency medical services, salvage and overhaul operations, and immediate hazardous material operations level response. While supporting a FOB, the ARFF Platoon is also responsible for the effective implementation and management of fire protection and prevention programs.

CONDITION: Given a mission requirement, commander's intent, personnel, and the references.

STANDARD: To reduce risk and increase safety while operations are conducted.

EVENT COMPONENTS:
1. Review mission requirements.
2. Plan equipment and personnel based upon the type of FOB and aircraft operations.
3. Coordinate with joint/host nation for availability of support assets.
4. Analyze diagram of the FOB to include base camp.
5. Coordinate ARFF communications.
6. Select immediate response position (Hot spot), strategically located on the airfield to observe all landings and take-offs.
7. Select standby alert positions (remaining complement of manned major aircraft firefighting and rescue vehicles to meet minimum response requirements).
8. Establish fire inspection/safety program and coordinate with personnel designing/constructing base camp to ensure compliance with tent camp fire safety procedures (tent spacing, fire lanes, etc.).
9. Establish firefighting support plan from the ABMP.

REFERENCES:
1. DoDI 6055.06 DoD Fire and Emergency Services (F&ES) Program
2. MCO P11000.11 Marine Corps Fire Protection and Emergency Services Program
3. MCWP 3-21.1 Aviation Ground Support
4. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information
5. NAVAIR 00-80R-14-1 NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual
6. NAVAIR 00-80R-20 NATOPS U.S. Navy Aircraft Crash & Salvage Operations Manual (Ashore)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17420 Maneuver/Training Area, Heavy Forces
Facility Code 17918 Road/Airfield Construction Training Site

**MISCELLANEOUS:**

**SPECIAL PERSONNEL CERTS:** Any and all required certification necessary to perform, conduct or validate the event.

**AOPS-ARFF-6002:** Conduct mass casualty operations

**SUPPORTED MET(S):**

| MCT 4.6.3 | MCT 5.3.3.3 | MCT 6.3.3 |

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** While there are flight sorties taking place at a FOB, ARFF personnel are positioned on the airfield to provide the initial response to aircraft/facilities related incidents that produce mass casualties. ARFF personnel are trained and equipped to provide basic emergency medical services, assist with triage and evacuation of casualties. Upon notification of a mass casualty incident, health services personnel will assume responsibility for the triage, treatment and evacuation of casualties.

**CONDITION:** Given an incident on or in proximity to a Forward Operating Base (FOB) that result in large number of injured personnel.

**STANDARD:** To save lives and reduce immediate hazards to life.

**EVENT COMPONENTS:**

1. Provide ARFF initial response to an incident.
2. Provide ARFF Rescue/Extrication services to injured personnel from aircraft/facilities.
3. Establish expedient triage area.
4. Control the spread of fires/other hazards to life.
5. Coordinate ARFF efforts with medical personnel.
6. Provide support for casualty collection.
8. Provide support for temporary casualty holding.
9. Provide support for casualty evacuation.

**CHAINED EVENTS:**

AOPS-ARFF-5001  
HQCO-COMM-5005  
HQCO-MED-5002  
MTCO-OPS-5001

**REFERENCES:**

1. MCWP 4-11.1 Health Service Support Operations
2. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17951 Fire Fighting And Rescue Training Area
**EQUIPMENT:** ARFF, medical, motor transportation vehicles, and utilities.

**UNITS/PERSOELNEL:** Trained health service and ARFF personnel.

---

**AOPS-EAF-6001:** Plan Expeditionary Airfield (EAF) services

**SUPPORTED MET(S):**
- MCT 4.6.3
- MCT 5.3.2.12
- MCT 5.3.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** To support the ACE Commander by planning EAF services in support of deployed elements of the MAGTF. EAF provides the capability to design, construct and support tactical airfields.

**CONDITION:** Given a mission requirement, commander's intent, personnel, and references.

**STANDARD:** To provide the ACE or site commander with flexible, rapidly deployable, self-sustaining, and survivable forward bases to support the ACE during expeditionary operations.

**EVENT COMPONENTS:**
1. Acknowledge receipt of the task and receive the commander's guidance.
2. Calculate minimum airfield geometric requirements (to include: runway, taxi way, and parking areas).
3. Calculate airfield lighting and marking requirements (to include: runways, taxi ways, and parking areas).
4. Coordinate airfield design with the MWSS Commander.
5. Calculate the correct number/type of EAF packages required (AM-2 matting, accessory packages, lighting, arresting gear, VLA, etc.).
6. Participate in site survey.
7. Determine best direction to orient runways considering prevailing winds.
8. Determine best location for M-31 arresting gear on runway, as required.
9. Coordinate required engineer support to perform soil analysis, as required.
10. Determine if the weight bearing capability of the soil is sufficient for the aircraft that will operate from the FOB, as required.
11. Ensure resources are available to construct the airfield.
12. Obtain approved frequencies to be utilized within the FOB.
13. Coordinate engineer support for installation of EAF systems.

**REFERENCES:**
1. MCWP 3-21.1 Aviation Ground Support
2. MCWP 5-1 Marine Corps Planning Process (MCPP)
3. NAVAIR 00-80T-115 Expeditionary Airfield NATOPS Manual
4. NAVAIR 51-40ABA-14 Portable Shore Based Fresnel Lens OLS MK 8 MOD 0 & MOD1
5. NAVAIR 51-40ABA-7 Lighting & Marking for EAF
6. NAVAIR 51-40ACB-1 Airfield Emergency Portable Marker Light
7. NAVAIR 51-50ABA-16(_ ) Minimum Operating Strip Lighting System (MOSLS)
8. NAVAIR 51-5FAA-1(_ ) M31 Marine Corps Expeditionary Arresting Gear System
9. NAVAIR 51-60-A-1 Installation, Maintenance, Repackaging and Illustrated Parts Breakdown, AM-2 Airfield Mat and Accessories
10. NAVAIRINST 13800.12B Certification of Expeditionary Airfield AM-2 Mat Installations, Aircraft Recovery Equipment, Visual/Optical Landing Aids, and Marking/Lighting Systems
11. NAVAIRINST 13800.13B Certification of Shore-Based Aircraft Recovery Equipment and Visual/Optical Landing Aids Systems
12. OPNAVINST 4790.2 The Naval Aviation Maintenance Program (NAMP)

MISCELLANEOUS:

   **SPECIAL PERSONNEL CERTS:** Any and all required certification necessary to perform, conduct or validate the event.

---

**AOPS-OPS-6001:** Train Air Operations personnel

**SUPPORTED MET(S):**

<table>
<thead>
<tr>
<th>MCT 4.6.3</th>
<th>MCT 5.3.3.3</th>
<th>MCT 6.1.1.3.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 6.3.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Train company personnel in order to sustain proficiency in required MOS skills. This training includes but is not limited to E-Coded collective events for EAF, ARFF, Bulk Fuel, Motor Transportation and EOD personnel.

**CONDITION:** Given a unit, approved Mission Essential Task List (METL), commander’s training guidance, training plans, training schedules, resources and trainers.

**STANDARD:** To ensure that all requirements identified in event components (collective events) are addressed in sequence so all training evolutions achieve desired results in accordance with the references.

**EVENT COMPONENTS:**

2. Identify collective training standards.
3. Conduct training assessment.
4. Determine training strategy.
5. Develop training guidance.
6. Develop a long range training plan.
7. Develop a mid-range training plan.
8. Develop a short-range training plan.
9. Develop weekly training schedules.
10. Develop lesson materials.
11. Develop training materials.
13. Conduct training.
14. Evaluate training.
15. Evaluate unit training plans.
CHAINED EVENTS:
AOPS-ARFF-5001 AOPS-EAF-5001 AOPS-FUEL-5001
AOPS-FUEL-5002 AOPS-FUEL-5003

REFERENCES:
1. MCO 1553.3 Unit Training Management (UTM) Program
2. MCRP 3-0A Unit Training Management Guide
3. MCRP 3-0B How to Conduct Training
4. MCWP 5-1 Marine Corps Planning Process (MCPP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17413 Field Training Area
Facility Code 17420 Maneuver/Training Area, Heavy Forces
Facility Code 17951 Fire Fighting And Rescue Training Area

MISCELLANEOUS:

SPECIAL PERSONNEL CERTS: Any and all required certification necessary to perform, conduct or validate the event.

AOPS-OPS-6002: Provide Air Operations services

SUPPORTED MET(S):
MCT 4.6.3 MCT 5.3.2.12 MCT 5.3.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The MWSS airfield operations company provides the preponderance of airfield support functions. At established airfields and FOBs, the Airfield Operations Company provides the technical expertise, equipment, and personnel necessary to operate the flight line.

CONDITION: Given a mission requirement for an air operations company, commander's intent, personnel, equipment, and the references.

STANDARD: That meets established criteria and mission requirements.

EVENT COMPONENTS:
1. Provide Expeditionary Airfield (EAF) services.
2. Provide Aircraft Rescue and Fire Fighting (ARFF) services.
3. Provide aviation refueling services.
4. Provide ground refueling services.
5. Provide Explosive Ordnance Disposal (EOD).

CHAINED EVENTS:
AOPS-ARFF-5001 AOPS-EAF-5001 AOPS-FUEL-5001
AOPS-FUEL-5002 AOPS-FUEL-5003

REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support
2. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information
3. NAVAIR 00-80R-14-1 NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual
4. NAVAIR 00-80R-20 NATOPS U.S. Navy Aircraft Crash & Salvage Operations Manual (Ashore)
5. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
6. NAVAIRINST 13800.12B Certification of Expeditionary Airfield AM-2 Mat Installations, Aircraft Recovery Equipment, Visual/Optical Landing Aids, and Marking/Lighting Systems
7. NAVAIRINST 13800.13B Certification of Shore-Based Aircraft Recovery Equipment and Visual/Optical Landing Aids Systems
8. Naval Warfare Publication NWP) 55-3-AH1, AH-1 Tactical Manual
9. NAVMC 3500.12_ Marine Corps Engineer and Utilities Training and Readiness Manual

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
- Facility Code 17330 Covered Training Area
- Facility Code 17410 Maneuver/Training Area, Light Forces
- Facility Code 17413 Field Training Area
- Facility Code 17420 Maneuver/Training Area, Heavy Forces
- Facility Code 17918 Road/Airfield Construction Training Site
- Facility Code 17925 Airfield Site Selection Training Area
- Facility Code 17933 POL Training Area
- Facility Code 17951 Fire Fighting And Rescue Training Area

**MISCELLANEOUS:**

**SPECIAL PERSONNEL CERTS:** Any and all required certification or licenses necessary to perform, conduct, or validate the event.

**ENGR-OPS-6001:** Plan engineer operations

**SUPPORTED MET(S):**
- MCT 5.3.2.12
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES

**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Plan engineer operations to optimize the use of engineer personnel and equipment in accordance with problem framing, commander's intent and concept of operations.

**CONDITION:** Given higher commander's initial guidance, battle space area evaluation, and a warning order or operations order.

**STANDARD:** To identify the best use of engineer personnel and equipment consistent with problem framing, commander's intent, and concept of operations.

**EVENT COMPONENTS:**
1. Perform problem framing.
2. Develop courses of action.
3. War game courses of action.
5. Conduct decision brief.
6. Develop orders.
7. Transition to produce operations plan or order.
8. Develop branches and sequels, if applicable.

RELATED EVENTS:
1302-ADMN-1001  1302-CMOB-1001  1302-CMOB-1002
1302-CMOB-1003  1302-DEMO-1001  1302-DEMO-1004
1302-EOPS-1004  1302-EOPS-1005  1302-FUEL-1001
1302-HORZ-1001  1302-HORZ-1002  1302-MOBL-1001
1302-MOBL-1002  1302-MOBL-1003  1302-MOBL-1005
1302-MOBL-1007  1302-MOBL-1016  1302-PLAN-1001
1302-PLAN-1002  1302-SURV-1004  1302-VERT-1001

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCWP 3-17.5 Combined Arms Obstacle Integration
3. MCWP 3-17 Engineering Operations
4. MCWP 3-17.4 Engineer Reconnaissance
5. MCWP 3-17.6 Survivability
6. MCWP 3-17.8 Combined Arms Mobility Operations
7. MCWP 5-1 Marine Corps Planning Process (MCPP)

ENGR-OPS-6002: Command and Control engineer forces

SUPPORTED MET(S):
MCT 5.3.2.12  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: To exercise authority and direction over assigned forces, advise
the commander on the use of engineer forces, and coordinate operations with
adjacent engineers in the accomplishment of the mission.

CONDITION: Given an order and commander's intent.

STANDARD: To exercise authority and direction over assigned forces, advise
the commander on the use of engineer forces, and coordinate operations with
adjacent engineers in the accomplishment of the mission.

EVENT COMPONENTS:
1. Establish communications with higher, adjacent, supported and subordinate
   units.
2. Command assigned units.
3. Maintain the engineer Common Operational Picture (COP).
4. Direct and coordinate current engineer operations.
5. Initiate appropriate actions.
6. Track commanders CCIRs.
7. Maintain status of available engineer resources.
8. Integrate engineer reconnaissance products with intelligence effort.
9. Make recommendations to the commander.

**CHAINED EVENTS:**

| ENGR-EQIP-5001 | ENGR-HORZ-5001 | ENGR-HORZ-5002 |
| ENGR-MOBL-5001 | ENGR-MOBL-5002 | ENGR-MOBL-5003 |
| ENGR-MOBL-5004 | ENGR-OPS-5001  | ENGR-RECN-5001 |
| ENGR-SURV-5001 | ENGR-SURV-5002 | ENGR-VERT-5001 |

**REFERENCES:**
1. JP 3-34 Joint Engineer Operations
2. MCWP 3-17 Engineering Operations
3. MCWP 3-43 Command and Control
4. MCWP 5-1 Marine Corps Planning Process (MCP)

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
- Facility Code 17410 Maneuver/Training Area, Light Forces
- Facility Code 17413 Field Training Area
- Facility Code 17420 Maneuver/Training Area, Heavy Forces

**EQUIPMENT:**
Engineer Earthmoving equipment, Engineer support equipment, Engineer Material Handling equipment, Bulk Fuel equipment, Utilities equipment.

**MISCELLANEOUS:**

**SPECIAL PERSONNEL CERTS:**
Licensed operators for the support equipment being utilized.

**SGN-OPS-6003:** Train engineer company personnel

**SUPPORTED MET(S):**
MCT 5.3.3.3  MCT 6.1.1.3.4  MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:**
Train engineer and utility forces in order to sustain proficiency in mobility, countermobility, survivability, horizontal construction and vertical construction collective events.

**CONDITION:**
Given an engineer unit, approved Mission Essential Task List (METL), commander's training guidance, training plans, training schedules, resources and trainers.

**STANDARD:**
To ensure that all requirements identified in event components (collective tasks) are addressed in sequence so all training evolutions achieve desired results in accordance with the references.

**EVENT COMPONENTS:**
2. Identify collective training standards.
3. Conduct training assessment.
4. Determine training strategy.
5. Develop training guidance.
6. Develop a mid-range training plan.
7. Develop a short-range training plan.
8. Develop weekly training schedules.
10. Develop training materials.
11. Conduct Operational Risk Assessment (ORA).
12. Coordinate supporting equipment and personnel as required.
13. Conduct training.
14. Evaluate training.
15. Evaluate unit training plans.
16. Remediate personnel as required.

**CHAINED EVENTS:**

<table>
<thead>
<tr>
<th>ENGR-EQIP-5001</th>
<th>ENGR-HORZ-5001</th>
<th>ENGR-HORZ-5002</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-MANT-5001</td>
<td>ENGR-MOBL-5001</td>
<td>ENGR-MOBL-5002</td>
</tr>
<tr>
<td>ENGR-MOBL-5003</td>
<td>ENGR-MOBL-5004</td>
<td>ENGR-OPS-5001</td>
</tr>
<tr>
<td>ENGR-RECN-5001</td>
<td>ENGR-SURV-5001</td>
<td>ENGR-SURV-5002</td>
</tr>
<tr>
<td>ENGR-UTIL-5001</td>
<td>ENGR-VERT-5001</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES:**
1. MCO 1553.3 Unit Training Management (UTM) Program
2. MCRP 3-0A Unit Training Management Guide
3. MCRP 3-0B How to Conduct Training
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.8 Combined Arms Mobility Operations
6. MCWP 5-1 Marine Corps Planning Process (MCPP)
7. NAVMC 3500.12 Marine Corps Engineer and Utilities Training and Readiness Manual

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
- Facility Code 17410 Maneuver/Training Area, Light Forces
- Facility Code 17413 Field Training Area
- Facility Code 17420 Maneuver/Training Area, Heavy Forces
- Facility Code 17830 Light Demolition Range
- Facility Code 17924 Water supply Training Area

**ENGR-OPS-6004:** Conduct general engineering operations

**SUPPORTED MET(S):**
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** The MWSS is the primary Marine engineer unit to provide expeditionary vertical/horizontal construction, utilities and engineer
equipment support to the ACE during FOB operations. Providing this support includes but is not limited to; Prepare plans, orders, and to direct, lead and coordinate forces in support of MAGTF operations.

**CONDITION:** Given a mission, commanders intent, available resources, location of adjacent and friendly forces, estimated location and most recent activities of enemy, weather conditions, defined area of operations, routes, rules of engagement (ROE), supporting arms plan, and security element.

**STANDARD:** To support the establishment of a forward operating base and ensure operations are conducted in accordance with commander's intent, concept of operations and supported unit requirements.

**EVENT COMPONENTS:**
1. Review AGS, FOB plan.
2. Coordinate planning efforts with higher headquarters.
3. Task organize.
4. Provide engineer reconnaissance and survey requirements.
5. Construct and maintain expedient roads.
6. Construct, maintain, and improve vertical or short takeoff and landing sites.
7. Construct and maintain mission essential base camp requirements (temporary structures).
8. Provide technical and equipment assistance for erection of pre-engineered buildings.
9. Provide tactical utilities support.
10. Develop, improve, and maintain drainage systems.
11. Provide technical assistance to support camouflage requirements.
13. Provide expeditionary vertical construction.
14. Provide engineer equipment to support operations.
15. Provide engineer equipment maintenance.
16. Provide surveying capabilities.
17. Provide support for BRAAT operations.

**CHAINED EVENTS:**
- ENGR-EQIP-5001
- ENGR-HORZ-5001
- ENGR-HORZ-5002
- ENGR-MANT-5001
- ENGR-MOBL-5001
- ENGR-MOBL-5002
- ENGR-MOBL-5003
- ENGR-MOBL-5004
- ENGR-OPS-5001
- ENGR-RECN-5001
- ENGR-SURV-5001
- ENGR-SURV-5002
- ENGR-UTIL-5001
- ENGR-VERT-5001

**REFERENCES:**
1. MCRP 2-3A Intelligence Preparation of the Battlefield/Battlespace
2. MCRP 3-17.6A Camouflage, Concealment, and Decoys
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
4. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
5. MCRP 3-17.7D Concrete and Masonry
6. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
7. MCRP 3-17.7F Project Management
8. MCRP 3-17.7G Military Soils Engineering
9. MCRP 3-17.7I Earthmoving Operations
10. MCRP 3-17.7K Theater of Operations Electrical Systems
11. MCRP 3-17.7N Base Camps
12. MCRP 3-17A Engineering Field Data
13. MCWP 3-17 Engineering Operations
14. MCWP 3-17.4 Engineer Reconnaissance
15. MCWP 3-17.5 Combined Arms Countermobility Operations
16. MCWP 4-11 Tactical-Level Logistics
17. NAVAIR 00-80T-115 Expeditionary Airfield NATOPS Manual
18. NAVAIR 51-60-A-1 Installation, Maintenance, Repackaging and Illustrated Parts Breakdown, AM-2 Airfield Mat and Accessories

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17413 Field Training Area
Facility Code 17918 Road/Airfield Construction Training Site
Facility Code 17924 Water Supply Training Area

**EQUIPMENT:** Engineer equipment, Combat engineer equipment, Utilities equipment

**ENGR-OPS-6005:** Conduct countermobility operations

**SUPPORTED MET(S):**
MCT 5.3.3.3 MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Countermobility augments natural terrain with obstacle systems that disrupt the enemy's ability to maneuver its forces. With its movement disrupted, turned, fixed or blocked, the enemy is vulnerable.

**CONDITION:** Given a mission, commander's intent, available resources, location of adjacent and friendly forces, estimated location and most recent activities of enemy, weather conditions, defined area of operations, routes, rules of engagement (ROE), supporting arms plan and references.

**STANDARD:** To fix, turn, block, or disrupt enemy forces in accordance with the commander's intent and concept of operations.

**EVENT COMPONENTS:**
1. Conduct countermobility planning.
2. Integrate countermobility plan into concept of operations.
3. Participate in supported unit planning.
4. Task organize.
5. Complete engineering portion to orders.
7. Construct obstacles and barriers.
8. Maintain obstacles and barriers.
9. Submit reports as required.

**CHAINED EVENTS:**
REFERENCES:
1. MCWP 3-13.2 MINE WARFARE
2. MCWP 3-17 Engineering Operations
3. MCWP 3-17.5 Combined Arms Countermobility Operations
4. MCWP 3-43 Command and Control
5. MCWP 5-1 Marine Corps Planning Process (MCPP)

HQCO-ABGD-6001: Conduct BDOC operations

SUPPORTED MET(S):
MCT 5.3.2.12  MCT 5.3.3.3  MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The BDOC is the nucleus for the ACE rear area defense. It provides the management, tasking, and supervision for the ACE's ABGD forces and operations. The ACE commander is ultimately responsible for ABGD but normally delegates that authority to the MWSS commander. Through the squadron AGSOC, the MWSS commander controls and supervises the operation of the BDOC. Although the MWSS S-3 operations officer will supervise operations assigned to the squadron, the MWSS commander will assign an officer, to oversee ABGD operations. The BDOC will consist of the security/ABGD OIC, the security/ABGD staff noncommissioned OIC, S-2, and the senior supervisor for each subordinate security and guard force within the organization.

CONDITION: Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

STANDARD: To provide rear area security within the designed criteria and the commander's intent.

EVENT COMPONENTS:
1. Coordinate with ABGD organizations.
2. Establish site security (Listening posts, observation posts, and patrols).
3. Establish placement of crew served weapons for employment.
4. Establish local security based on the anticipated threat; i.e., listening/observation posts, security and ambush patrols to prevent surprise attack and infiltration.
5. Employ active and passive security measures to counter the threat.
6. Designate unit defensive positions that allow for mutual support in defense of the FOB, emphasizing coordinated surveillance, exchange of information, coordinated fires, and final protective fires.
7. Select and prepare primary and supplementary defensive positions.
8. Plan defense in-depth through the use of supplementary positions and alternate positions for crew served weapons, and preplanned fires into threatened areas.
9. Employ a series of field expedient and constructed obstacles to fix, turn, block, or disrupt the movement of enemy forces.
10. Maintain dispersion and employ use of camouflage on resources and individuals to avoid presenting the enemy with an easy targeting
11. Employ maximum available surveillance and tactical remote sensor devices to detect enemy movement.
12. Ensure signals are utilized to alert units within the FOB of an increase in the enemy threat condition.
13. Execute day and night rehearsals of the reaction force.
14. Establish wire communications where and when possible.
15. Disseminate the most current security information acquired by FOB security elements throughout the FOB and, as required, to higher headquarters.
16. Prepare all required reports and records for employment of demolitions (when authorized) in defense of the FOB.

CHAINED EVENTS:
- ENGR-CMOB-3002
- ENGR-SURV-3003
- HQCO-ABGD-4001
- HQCO-ABGD-4005
- HQCO-ABGD-5001
- HQCO-ABGD-5002
- HQCO-ABGD-5003
- HQCO-ABGD-5004
- HQCO-COMM-5005

REFERENCES:
1. MCO 3501.17 MARINE CORPS COMBAT READINESS EVALUATION SYSTEM (SHORT TITLE: MCCRES); VOLUME XIII, MARINE WING
2. MCWP 3-21.1 Aviation Ground Support
3. MCWP 3-41.1 Rear Area Operations

HQCO-ABGD-6002: Provide delay tactics against level III threats

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: ABDG provides for base airfield security operations and conduct measures, both normal and emergency, to nullify and reduce the effectiveness of enemy ground attack directed against air bases and installations. Level III threats exceed local security measures and response forces capabilities and may require timely commitment of GCE tactical combat forces. Each ACE airfield has several tenant units from which it can draw for defense of the airfield, as the composition of each airfield can vary extensively due to task organization and mission assignment. Local standing operating procedures (SOPs) and directives govern the size, assets, and methods of employment for ACE provisional security forces. Tenant units will fall under the control of the TSO and BDOC.

CONDITION: Given a tactical situation, an operations order, ACE commander's intent, task organized personnel and equipment and references.

STANDARD: To minimized enemy attempts to disrupt and demoralize rear area forces by interrupting support activities, interdicting LOC, and trying to cause a diversion of combat power from the close battle to protect the rear area, and to minimize that threat through economy of force operations, dispersion, and increased base defense capabilities.

EVENT COMPONENTS:
1. Receive the operations order.
2. Issue the order.
3. Task organize.
4. Implement security objectives, as required.
5. Implement security principles, as required.
6. Apply security tasks, as required.
7. Utilize the airbase defense system, as required.
8. Implement security and control procedures, as required.
9. Transition to GCE augmentation.
10. Reconstitute the force.
11. Conduct debrief.

PREREQUISITE EVENTS:
HQCO-ABGD-6001   HQCO-OPS-6003

CHAINED EVENTS:
HQCO-ABGD-5001   HQCO-ABGD-5002   HQCO-ABGD-5003
HQCO-ABGD-5004

REFERENCES:
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

HQCO-OPS-6001: Train Headquarters & Service company personnel

SUPPORTED MET(S):
MCT 4.6.3   MCT 5.3.3.3   MCT 6.1.1.3.4
MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Train company personnel in order to sustain proficiency in required MOS skills.

CONDITION: Given a unit, approved Mission Essential Task List (METL), commander's training guidance, training plans, training schedules, resources and trainers.

STANDARD: To ensure that all requirements identified in event components (collective tasks) are addressed in sequence so all training evolutions achieve desired results in accordance with the references.

EVENT COMPONENTS:
2. Identify collective training standards.
3. Conduct training assessment.
4. Determine training strategy.
5. Develop training guidance.
6. Develop a long range training plan.
7. Develop a mid-range training plan.
8. Develop a short-range training plan.
9. Develop weekly training schedules.
10. Develop lesson materials.
11. Develop training materials.
12. Conduct Operational Risk Assessment (ORA)
13. Conduct training.
14. Evaluate training.
15. Evaluate unit training plans.

**CHAINED EVENTS:**

| HQCO-ABGD-5001 | HQCO-ABGD-5002 | HQCO-ABGD-5003 |
| HQCO-ABGD-5004 | HQCO-COMM-5002 | HQCO-COMM-5003 |
| HQCO-COMM-5004 | HQCO-COMM-5005 | HQCO-MED-5001 |
| HQCO-MED-5002 | HQCO-OPS-5001 |

**REFERENCES:**

1. MCO 1553.3_ Unit Training Management (UTM) Program
2. MCRP 3-0A Unit Training Management Guide
3. MCRP 3-0B How to Conduct Training
4. MCWP 5-1 Marine Corps Planning Process (MCP)

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
- Facility Code 17410 Maneuver/Training Area, Light Forces
- Facility Code 17413 Field Training Area
- Facility Code 17420 Maneuver/Training Area, Heavy Forces

**HQCO-OPS-6002:** Provide Headquarters & Service company support

**SUPPORTED MET(S):**
- MCT 5.3.2.12
- MCT 5.3.3.3
- MCT 6.1.1.3.4
- MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Provide services related to occupational fields that are resident within the company.

**CONDITION:** Given a mission requirement, commander's intent, personnel, tools, equipment and the references.

**STANDARD:** To support the establishment and continued operations on a forward operating base.

**EVENT COMPONENTS:**

1. Provide communications.
2. Provide field messing.
3. Provide health services.
4. Provide training of personnel.
5. Provide CBRN services.
CHAINED EVENTS:
HQCO-CBRN-3002   HQCO-CBRN-3003   HQCO-COMM-5001
HQCO-COMM-5002   HQCO-COMM-5003   HQCO-COMM-5004
HQCO-COMM-5005   HQCO-FOOD-3002   HQCO-FOOD-3003
HQCO-FOOD-3004   HQCO-MED-5001   HQCO-MED-5002

REFERENCES:
1. MCRP 3-37.2A MTTP for Chemical, Biological, Radiological and Nuclear Contamination Avoidance
2. MCRP 3-37.2C MTTP for Chemical, Biological, Radiological, and Nuclear Consequence Management Operations
3. MCRP 3-37B MTTP for CBRN Aspects of Command and Control
4. MCRP 4-11.8A Marine Corps Field Feeding Program
5. MCRP 4-11B Environmental Considerations
6. MCWP 3-21.1 Aviation Ground Support
7. MCWP 3-37 MAGTF Nuclear, Biological, and Chemical Defense Operations
8. MCWP 3-37.1 Multiservice Doctrine for CBRN Operations
9. MCWP 3-37.2 MTTP for NBC Protection
10. MCWP 3-37.3 MTTP for CBRN Decontamination
11. MCWP 3-37.4 MTTP for NBC Reconnaissance
12. MCWP 3-37.5 MTTP for Installation CBRN Defense
13. MCWP 3-40.3 MAGTF Communications System
14. MCWP 4-11.1 Health Service Support Operations
15. NAVMED P-5010-1 Manual of Naval Preventive Medicine, Chapter 1, Food Sanitation
16. NAVMED P-5010-9 Manual of Naval Preventive Medicine, Chapter 9, Preventive Medicine for Ground Forces

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA:
Facility Code 17413 Field Training Area
Facility Code 17918 Road/Airfield Construction Training Site

HQCO-OPS-6003: Operate AGS Operations Center (AGSOC)

SUPPORTED MET(S):
MCT 4.6.3        MCT 5.3.2.12        MCT 5.3.3.3
MCT 6.1.1.3.4     MCT 6.3.3

EVALUATION-CODED: YES    SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: While deployed, the MWSS operates from an AGSOC. The AGSOC is the nucleus for the coordination and execution of AGS services and functions. From the AGSOC, the MWSS commander supervises MWSS companies and manages squadron activities. The squadron S-3 runs the AGSOC, which includes representation from the squadron's staff and operational sections (i.e., S-1, S-2, S-4, S-6, CBRN defense, airfield operations, engineer operations, and MT operations). The S-3 must have the capability to receive, prioritize, assign, and track AGS activities. To respond to changes in operations, tempo, and environment, the AGSOC must be flexible. It functions much like the Marine Logistics Group (MLG), Combat Service Support Operations Center (CSSOC). The
AGSOC processes AGS requests from customers and tasks subordinate elements to respond. It manages the AGS effort and provides the center of control for other activities important to operations.

**CONDITION:** Given a mission requirement, commander's intent, personnel, equipment and tools and references.

**STANDARD:** To ensure operations are conducted in support of the ACE commander's intent.

**EVENT COMPONENTS:**
1. Conduct administrative support actions through the S-1.
2. Provide logistic support operations through the S-4.
3. Provide intelligence operations through the S-2.
4. Provide communication and information systems support through the S-6.
5. Coordinate airfield operations.
6. Coordinate ABDG operations.
7. Coordinate BRAAT operations.
8. Coordinate ADR operations.
9. Coordinate FARP operations.
10. Coordinate CBRN defense operations.
11. Coordinate EOD operations.

**CHAINED EVENTS:**
AOPS-ARFF-5001        AOPS-EAP-5001        AOPS-FUEL-5001
ENGR-MOBL-5001            HQCO-ABGD-5001        HQCO-ABGD-5002
HQCO-ABGD-5003            HQCO-ABGD-5004        HQCO-COMM-5005
HQCO-OPS-5001

**REFERENCES:**
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations
5. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information
6. NAVAIR 00-80R-14-1 NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual
7. NAVAIR 00-80R-20 NATOPS U.S. Navy Aircraft Crash & Salvage Operations Manual (Ashore)
8. NAVAIR 00-80R-109 Aircraft Refueling NATOPS Manual
10. NAVAIRINST 13800.13B Certification of Shore-Based Aircraft Recovery Equipment and Visual/Optical Landing Aids Systems
11. Naval Warfare Publication NWP) 55-3-AH1, AH-1 Tactical Manual
12. NAVMC 3500.12_ Marine Corps Engineer and Utilities Training and Readiness Manual

**MTCO-OPS-6001:** Plan Motor Transportation company services
**SUPPORTED MET(S):**
MCT 5.3.2.12  MCT 5.3.3.3  MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** MWSS MT Company is tailored to support MAG/ACE and FOB tenant activities with vehicles for daily intra-base support requirements. MT can provide organic vehicles which are capable of the establishment and buildup of two FARPs simultaneously. MWSS requires augmented transportation support to support larger than MAG size activities such as: deployment/redeployment, Airbase/facility build up, squadron displacement, leap-frogging of two or more FARPs simultaneously, and to support large scale construction projects. MT operations platoon tasks also include: lift support (Personnel, Cargo, Equipment, Bulk Water (Class I Supply), and Bulk Fuel (Class III Supply) in and about an established airfield); Unit Movement Control Center (UMCC); Plan and execute convoys to include security measures; tactical mobility to support FARP operations; training/licensing of incidental operators, operator/crew maintenance of organic equipment and crew maintenance for supported units.

**CONDITION:** Given a mission, vehicles, personnel, required tools and equipment.

**STANDARD:** To safely meet operational requirements with no injury to personnel or damage to equipment.

**EVENT COMPONENTS:**
1. Analyze the mission.
2. Determine critical tasks.
3. Request intelligence/information to determine trafficability, soil characteristics and weight bearing properties.
4. Request topographical products (maps, aerial imagery, and other special topographical documents).
5. Provide staff input during the development of the logistics and the AGS estimates of supportability.
6. Make recommendations to the squadron Commanding Officer on the employment of MT assets.
7. Determine, based on courses of action, overall MT support requirements.
8. Ensure effective use is made of the transport capability of the vehicles consistent with tactical considerations.
9. Develop traffic circulation plan.
10. Employ centralized control measures to be used ashore for the prioritized and efficient use of vehicles.
11. Identify the fuel and lubricant requirements, by type, quantity, and climate conditions to support the vehicle fleet (consider weather conditions/average temperature and specific fluid weights, additives and fuel types).
12. Plan motor transport security, to include cover and camouflage, when vehicles are not in use.
13. Request communications equipment, frequencies, and call signs.
14. Identify all special/additional equipment requirements.
15. Initiate continuous first echelon maintenance.

**RELATED EVENTS:**
3529-ADMN-2104  3529-OPER-2301
REFERENCES:
1. MCO 11240.66_ Standard Licensing Policy for Operators of Military Motor Vehicles
2. MCRP 4-11.3F Convoy Operations Handbook
3. MCRP 4-11.3H Multi-service Tactics, Techniques, and Procedures for Tactical Convoy Operations
4. MCWP 4-11.4 Maintenance Operations
5. MCWP 5-1 Marine Corps Planning Process (MCPP)
6. SOP Standard Operating Procedures (SOP)
7. TM 11240-OD Principal Technical Characteristics of U.S. Marine Corps Motor Transportation Equipment

MTCO-OPS-6002: Train Motor Transportation company personnel

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Train company personnel in order to sustain proficiency in required MOS skills.

CONDITION: Given an unit, approved Mission Essential Task List (METL), commander’s training guidance, training plans, training schedules, resources and trainers

STANDARD: To ensure that all requirements identified in event components (collective tasks) are addressed in sequence so all training evolutions achieve desired results in accordance with the references.

EVENT COMPONENTS:
2. Identify collective training standards.
3. Conduct training assessment.
4. Determine training strategy.
5. Develop training guidance.
6. Develop a long range training plan.
7. Develop a mid-range training plan.
8. Develop a short-range training plan.
9. Develop weekly training schedules.
10. Develop lesson materials.
11. Develop training materials.
12. Conduct Operational Risk Assessment (ORA)
13. Conduct training.
14. Evaluate training.
15. Evaluate unit training plans.

CHAINED EVENTS:
MTCO-OPS-5001  MTCO-OPS-5002

REFERENCES:
1. MCO 1553.3_ Unit Training Management (UTM) Program
2. MCRP 3-0A Unit Training Management Guide
3. MCRP 3-0B How to Conduct Training
4. MCWP 5-1 Marine Corps Planning Process (MCPP)

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
- Facility Code 17410 Maneuver/Training Area, Light Forces
- Facility Code 17413 Field Training Area
- Facility Code 17420 Maneuver/Training Area, Heavy Forces

---

**MTCO-OPS-6003:** Provide Motor Transportation company services

**SUPPORTED MET(S):**
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** The MWSS motor transport (MT) company provides the ACE with intrabase MT support, while the CSSE provides interbase MT support. Because MAGs and their respective squadrons do not have organic MT assets on their table of equipment (T/E), the MWSS maintains the MT assets necessary to fulfill the MT needs for the supported MAG. FOB buildup requires rapid planning and the use of MWSS equipment without competing with other MEF requirements for support. Daily movement of ordnance, personnel, supplies, and equipment at an air base is essential to ACE operations. MT Company provides light-, medium-, and heavy-lift MT tailored to ACE requirements. Numerous containers and shelters within each MAG and MACG require lift within air base confines and within close proximity of the air base. A large number of shelters exceed the cross-country capacity of a 7-ton truck and require LVSR support. This need for organic lift is magnified when required to establish and sustain FARP sites. The ASP requires dedicated daily support to move ammunition from storage sites to where it can be built up and loaded on aircraft. In addition to providing MT vehicle support, the MWSS trains and licenses ACE personnel who use MWSS vehicles to meet their MT requirements.

**CONDITION:** Given a mission, vehicles, personnel, required tools and equipment.

**STANDARD:** To safely meet operational requirements with no injury to personnel or damage to equipment.

**EVENT COMPONENTS:**
1. Review mission.
2. Determine mission requirements.
3. Provide organic transportation capabilities.
4. Establish contracted transportation capabilities, if available.
5. Establish transportation lift support relationships.
6. Utilize materials handling equipment operations support capabilities.
7. Utilize communications capabilities as required.
8. Establish transportation communication capabilities.
9. Conduct training/licensing of vehicle operators, to include incidental
operators.

10. Determine transportation equipment/manpower shortfalls.
11. Communicate to higher headquarters transportation equipment and manpower shortfalls.

12. Plan intra-base support for the MAG/ACE and FOB tenant activities.
13. Ensure internal and external transportation staff actions are synchronize.
14. Process transportation support requests.
15. Consolidate transportation support requests if applicable.
16. Track transportation capability availability.
17. Plan convoy operations.
18. Execute convoy operations.
19. Track the status of current transportation operations.
20. Track transportation support asset availability.
21. Track passenger, cargo, and vehicle throughput.
22. Report transportation requirements status.
23. Track equipment readiness.
24. Conduct maintenance operations.

**CHAINED EVENTS:**

MTCO-OPS-5001   MTCO-OPS-5002

**REFERENCES:**

1. MCO 11240.66 _ Standard Licensing Policy for Operators of Military Motor Vehicles
2. MCRP 4-11.3F Convoy Operations Handbook
3. MCRP 4-11.3H Multi-service Tactics, Techniques, and Procedures for Tactical Convoy Operations
4. MCWP 4-11.3 Transportation Operations
5. MCWP 4-11.4 Maintenance Operations
6. MCWP 5-1 Marine Corps Planning Process (MCPP)
7. SOP Standard Operating Procedures (SOP)

**MTCO-OPS-6004:** Establish a tactical motor pool

**SUPPORTED MET(S):**

MCT 5.3.3.3  MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** The tactical motor pool supports the MWSS as well as other units operating out of the FOB (base camp and airfield). It provides a centralized location for the management and maintenance of motor transport assets.

**CONDITION:** Provided with the requirement, equipment and personnel.

**STANDARD:** To safely meet operational requirement with no injury to personnel or damage to equipment.
EVENT COMPONENTS:
1. Conduct site recon.
2. Prepare a security plan.
3. Develop space requirements for equipment.
4. Develop space requirements for facilities.
5. Construct road network requirements.
6. Prepare a defense plan.
7. Create a fire prevention plan.
8. Observe environmental considerations.

CHAINED EVENTS: MTCO-OPS-5002

REFERENCES:
1. ATP 4-11 Army Motor Transport Operations
2. TM 11240-14/2 Logistic Consideration for Motor Transport Convoy Operations

MTCO-OPS-6005: Conduct convoy operations

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.1.1.3.4  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: A tactical convoy is a deliberate planned combat operation to move personnel and/or cargo via ground transportation in a secure manner under the control of a single commander. Tactical convoys must have access to the current common operational picture and maintain an aggressive posture that is both agile and unpredictable. Contact with the enemy can be mitigated by security and detailed planning/coordination; however, the convoy should be prepared to take immediate action against any enemy threat.

CONDITION: Given vehicles, personnel, required tools and equipment.

STANDARD: Arrive at a determined location with all required equipment and personnel.

EVENT COMPONENTS:
1. Receive the operation order.
2. Draft a movement order.
3. Identify classifications for routes.
4. Conduct a convoy commander's brief.
5. Create a defense plan for tactical convoy.
6. Establish convoy communication.
7. Establish convoy security.
8. Conduct a debrief.
10. Prepare a convoy commander's after action report.

CHAINED EVENTS: MTCO-OPS-5001

REFERENCES:
3005. 5000-LEVEL EVENTS

AOPS-ARFF-5001: Provide ARFF services

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Provide ARFF services in support of airfield operations (AOPS) at forward operating bases FOB and support installations. Services include: Fire Suppression and extinguishment on aircraft and structures, casualty extrication and rescue, basic emergency medical services, salvage and overhaul operations, and immediate hazardous material operations level response. While supporting a FOB, the ARFF Platoon is also responsible for the effective implementation and management of fire protection and prevention programs.

CONDITION: Given a mission requirement, commander's intent, personnel, equipment, tools and references.

STANDARD: To reduce risk and increase safety while operations are conducted.

EVENT COMPONENTS:
1. Review mission requirements.
2. Employ personnel and equipment based on requirements, type of expeditionary FOB and aircraft operations.
3. Employ available joint/host nation rescue and firefighting support assets and integrate into the ACE firefighting plan.
4. Employ a diagram of the FOB facilities to include the base camp.
5. Employ structural firefighting requirements.
6. Employ fire prevention program.
7. Employ ARFF emergency fire and rescue communications.
8. Respond from immediate response position (Hot spot).
10. Employ ARFF/structural firefighting duty sections.
13. Coordinate with personnel designing/constructing Base Camp to ensure compliance with Tent Camp Fire Safety procedures (tent spacing, fire
14. Coordinate with the Air Base commandant for the preparation of the fire bill.

CHAINED EVENTS:
AOPS-ARFF-4001          AOPS-ARFF-4002

REFERENCES:
1. DoDI 6055.06 DoD Fire and Emergency Services (F&ES) Program
2. MCO P1000.11 Marine Corps Fire Protection and Emergency Services Program
3. MCWP 3-21.1 Aviation Ground Support
4. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information
5. NAVAIR 00-80R-14-1 NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual
6. NAVAIR 00-80R-20 NATOPS U.S. Navy Aircraft Crash & Salvage Operations Manual (Ashore)

MISCELLANEOUS:

SPECIAL PERSONNEL CERTS: Any and all required certification necessary to perform, conduct or validate the event.

AOPS-EAF-5001: Provide EAF services

SUPPORTED MET(S):
MCT 4.6.3               MCT 5.3.3.3

EVALUATION-CODED: YES          SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The EAF is a shore-based aviation support system that permits landing force aircraft to operate from FOBs within effective range of ground forces. EAF is a construction concept used to develop or enhance FOBs and should not be confused with a concept of employment for Marine aviation. Although a FOB may be a simple grass landing zone (LZ) supporting helicopter operations, the installation and use of one or more EAF subsystems (e.g., fresnel lens, airfield lighting) will add versatility and durability to the site selected.

CONDITION: Given a mission requirement, commander's intent, personnel, equipment, tools and the references.

STANDARD: So the ACE or site commander will have flexible, rapidly deployable, self-sustaining, and survivable forward bases to support the ACE during expeditionary operations.

EVENT COMPONENTS:
1. Provide expeditionary airfield surfacing services.
2. Provide aircraft arrestment services.
3. Provide airfield terminal guidance services.
4. Provide airfield marking and lighting services.

CHAINED EVENTS:
REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support
2. NAVAIR 00-80T-115 Expeditionary Airfield NATOPS Manual
3. NAVAIR 51-40ABA-14 Portable Shore Based Fresnel Lens OLS MK 8 MOD 0 & MOD1
4. NAVAIR 51-40ABA-18 Lighting & Marking for EAF Bare-Base Airfields
5. NAVAIR 51-40ABA-7 Lighting & Marking for EAF
6. NAVAIR 51-50ABA-16( ) Minimum Operating Strip Lighting System (MOSLS)
7. NAVAIR 51-5FAA-1( ) M31 Marine Corps Expeditionary Arresting Gear System
8. NAVAIR 51-60A-1( ) AM2 Airfield Mat and Accessories
9. NAVAIRINST 13800.13B Certification of Shore-Based Aircraft Recovery Equipment and Visual/Optical Landing Aids Systems

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17420 Maneuver/Training Area, Heavy Forces
Facility Code 17918 Road/Airfield Construction Training Site

MISCELLANEOUS:

SPECIAL PERSONNEL CERTS: Any and all required certification necessary to perform, conduct or validate the event.

AOPS-FUEL-5001: Conduct Forward Arming and Refueling Point (FARP)

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: A FARP permits combat aircraft to conduct rapid refueling and rearming operations in close proximity to one another.

CONDITION: Given a mission order, location of operation, requirements, and necessary personnel and equipment.

STANDARD: In order to provide timely aircraft support.

EVENT COMPONENTS:
1. Position assets according to planned layout.
2. Conduct aircraft fueling activities.
3. Conduct emergency and immediate actions, as necessary.
4. Conduct re-deployment of assets.

CHAINED EVENTS:
AOPS-FUEL-3002  AOPS-FUEL-3003  AOPS-FUEL-4001
ENGR-EQIP-4001  ENGR-RECN-4001

REFERENCES:
1. FM 10-67-1 Concepts and Equipment of Petroleum Operations
2. MCWP 3-21.1 Aviation Ground Support
3. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
4. TM 11275-15/3 Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment
5. TM 3835-OI/1A Marine Corps Tactical Fuel Systems
6. TM 5-6630-218-10 Aviation Fuel, Contaminant, Test Kit

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
- Facility Code 17413 Field Training Area
- Facility Code 17918 Road/Airfield Construction Training Site
- Facility Code 17933 POL Training Area

**EQUIPMENT:** Bulk Fuel equipment, MALS support equipment, MACG support equipment.

**AOPS-FUEL-5002:** Construct bulk fuel site

**SUPPORTED MET(S):**
- MCT 4.6.3
- MCT 5.3.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 3 months

**DESCRIPTION:** Construct and set up fuel storage and distribution systems to accommodate multiple fuel requirements in support of the ACE.

**CONDITION:** Provided a bulk fuel plan with a systems layout, a location, task organized personnel, and engineer equipment.

**STANDARD:** To meet fuel support requirements in accordance with the commander's intent and the mobility plan.

**EVENT COMPONENTS:**
1. Review mission.
2. Determine construction criteria.
3. Coordinate engineer reconnaissance and survey.
4. Coordinate with supporting units.
5. Issue order.
6. Conduct site preparation, as required.
7. Construct drainage structures, as required.
8. Construct berms, as required.
9. Install tactical fuel system components.
10. Conduct dust abatement, as required.
11. Construct access road(s), as required.
12. Submit required reports.

**CHAINED EVENTS:**
- ENGR-EQIP-4001
- ENGR-HORZ-3001
- ENGR-HORZ-4001
- ENGR-RECN-4001
- ENGR-VERT-4007
RELATED EVENTS:
1345-ADMN-1002 1345-ADMN-2002 1345-HEOP-1003
1345-HEOP-1006 1345-HEOP-1007 1371-HORZ-2002
1391-XENG-1001 1391-XENG-1002 1391-XENG-1014

REFERENCES:
1. AR 200-1 Environmental Protection and Enhancement
2. MCO P5090.2 Environmental Compliance and Protection Manual
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the
   Theater of Operations – Road Design
4. MCRP 3-17.7F Project Management
5. MCRP 3-17.7I Earthmoving Operations
6. MCRP 4-11B Environmental Considerations
7. MCWP 3-17.4 Engineer Reconnaissance
8. MCWP 4-11.6 Petroleum and Water Logistics Operations
9. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
10. NAVAIR 00-80T-115 Expeditionary Airfield NATOPS Manual
11. TM 3835-OI/1A Marine Corps Tactical Fuel Systems

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17413 Field Training Area
Facility Code 17933 POL Training Area

EQUIPMENT: Engineer earthmoving equipment, Material Handling Equipment,
Utilities equipment, Bulk fuel equipment.

AOPS-FUEL-5003: Conduct tactical bulk fuel operations

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Conduct tactical bulk fuel operations in support of the ACE.

CONDITION: Given a mission order, location of operation, estimated fuel
requirements, required personnel and equipment, a communications plan,
necessary support equipment, and current references.

STANDARD: To provide uninterrupted fuel support per mission requirements.

EVENT COMPONENTS:
1. Establish bulk fuel site security plan.
2. Construct bulk fuel site(s).
3. Establish bulk fuel site safety/environmental plan.
4. Coordinate for fuel receipt.
5. Receive fuel as required.
7. Change product types as required.
8. Test fuel quality as required.
10. Dispense fuel as required.

**CHAINED EVENTS:**

AOPS-FUEL-4001 ENGR-RECN-4001

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>Event Code</th>
<th>Event Code</th>
<th>Event Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1390-XENG-2007</td>
<td>1390-XENG-2009</td>
<td>1390-XENG-2010</td>
</tr>
<tr>
<td>1390-XENG-2011</td>
<td>1390-XENG-2012</td>
<td>1390-XENG-2013</td>
</tr>
<tr>
<td>1390-XENG-2014</td>
<td>1390-XENG-2015</td>
<td>1391-XENG-1001</td>
</tr>
<tr>
<td>1391-XENG-1002</td>
<td>1391-XENG-1003</td>
<td>1391-XENG-1004</td>
</tr>
<tr>
<td>1391-XENG-1005</td>
<td>1391-XENG-1006</td>
<td>1391-XENG-1007</td>
</tr>
<tr>
<td>1391-XENG-1008</td>
<td>1391-XENG-1009</td>
<td>1391-XENG-1011</td>
</tr>
<tr>
<td>1391-XENG-1012</td>
<td>1391-XENG-1013</td>
<td>1391-XENG-1014</td>
</tr>
<tr>
<td>1391-XENG-1015</td>
<td>1391-XENG-2001</td>
<td>1391-XENG-2002</td>
</tr>
</tbody>
</table>

**REFERENCES:**

1. FM 10-68 Aircraft Refueling
2. FM 10-69 Petroleum Supply Point Equipment and Operations
3. MCWP 4-11.6 Petroleum and Water Logistics Operations
4. MCWP 4-25-5 Bulk Liqauls Operations
5. MIL STD 3004 Quality Surveillance Handbook for Fuels, Lubricants and Related Products
6. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
8. TM 3835-01/IA Marine Corps Tactical Fuel Systems
9. TM 4-43.31 Petroleum Laboratory Testing and Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17933 POL Training Area

**EQUIPMENT:** Material Handling Equipment, Bulk Fuel equipment, Utilities equipment, Engineer earthmoving equipment, Motor Transport equipment, Tactical communications equipment.

**ENG-EQIP-5001:** Provide engineer equipment support

**SUPPORTED MET(S):**

<table>
<thead>
<tr>
<th>MET Code</th>
<th>MET Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCT 5.3.3.3</td>
<td>MCT 6.3.3</td>
</tr>
</tbody>
</table>

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** The MWSS Engineer Company maintains the personnel and equipment necessary to repair, improve, and maintain existing roads within the ACE
operating area; construct and maintain expedient combat roads; and meet the MHE needs of the ACE during deployment, buildup, and support operations. The company also has the equipment necessary to support base recovery and ADR. Because the MWSS possesses insufficient earth moving assets to accomplish large-scale runway repair or construction, it will require either reinforcement or augmentation from other engineer units MWSSs, MLG, NCF, Host Nation support, or Contracted support.

CONDITION: Given a mission, a support plan, equipment availability, commander's intent, personnel and equipment, an area of operations or support, and references.

STANDARD: To provide required engineer support in accordance with unit SOPs, concept of operations and commander's intent.

EVENT COMPONENTS:
1. Review equipment support plan.
2. Analyze support requirements and location(s).
3. Determine resources.
4. Determine schedule of work.
5. Determine task organization.
6. Coordinate with supported unit (location, requirements, security, ground guides, etc.).
7. Coordinate with supporting units (logistics, etc.).
8. Manage engineer equipment operations.
9. Conduct earthmoving operations, as required.
10. Conduct material handling operations, as required.
11. Conduct crane operations, as required.
12. Conduct runway sweeper operations, as required.
13. Conduct soil stabilization operations, as required.
14. Conduct horizontal construction, as required.
15. Recover engineer equipment as required.
16. Conduct maintenance, as required.
17. Submit required reports.

CHAINED EVENTS:
ENGR-EQIP-3004  ENGR-EQIP-4001  ENGR-HORZ-4001
ENGR-MANT-4001  ENGR-MOBL-4001  ENGR-MOBL-4002
ENGR-MOBL-4003

RELATED EVENTS:
1341-ADMN-2003  1341-ADMN-2004  1341-ADMN-2005
1341-ADMN-2006  1341-ADMN-2007  1341-ADMN-2008
1345-HEOP-1001  1345-HEOP-1002  1345-HEOP-1003
1345-HEOP-1004  1345-HEOP-1005  1345-HEOP-1006
1345-HEOP-2009  1345-HEOP-2010  1345-MANT-1001
REFERENCES:
1. Applicable technical references
2. JP 3-34 Joint Engineer Operations
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations – Road Design
4. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations – Airfield and Heliport Design
5. MCRP 3-17.7F Project Management
6. MCRP 3-17.7I Earthmoving Operations
7. MCRP 3-17A Engineering Field Data
8. MCRP 3-17B Engineer Forms and Reports
9. MCWP 3-17 Engineering Operations
10. MCWP 4-11 Tactical-Level Logistics

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17330 Covered Training Area
Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer equipment, motor transport equipment, utilities equipment.

UNITS/PERSONNEL: Engineer equipment operators (1345), engineer equipment maintainers (1341), utilities equipment operators (1141, 1161, 1171), utilities equipment maintainers (1142).

ENGR-HORZ-5001: Conduct horizontal construction

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: In order to meet operational requirements of the ACE, horizontal construction is conducted to shape the terrain for various projects such as but not limited to MSR construction and/or maintenance, expeditionary airfields, site preparation for bed down facilities, ordnance storage facilities, and fuel storage.

CONDITION: Given a mission, commander's intent, tactical situation, a map, task organized equipment and personnel, design specifications, construction materials and references.

STANDARD: To create the assigned project that meets or exceed the
requirements listed in the design specifications and the commander's intent.

**EVENT COMPONENTS:**
1. Plan horizontal construction.
2. Conduct engineer reconnaissance and survey.
3. Coordinate with supporting units, as required.
5. Construct combat road(s), as required.
6. Construct tactical landing zones, as required.
7. Conduct dust abatement, as required.
8. Construct drainage structures, as required.
9. Construct expedient Helicopter Landing Zone (HLZ), as required.
10. Construct high power run-up areas, as required.
11. Construct expeditionary airfield, as required.
12. Construct non-explosive obstacles, as required.
13. Construct storage berms, as required.
14. Submit required reports.

**CHAINED EVENTS:**
AOPS-EAF-4005  ENGR-CMOB-4002  ENGR-EQIP-4001
ENGR-HORZ-3001  ENGR-HORZ-4001  ENGR-RECN-4001
ENGR-VERT-4002  ENGR-VERT-4007

**RELATED EVENTS:**
1302-HORZ-1001  1302-HORZ-1002  1302-HORZ-1003
1371-MOBL-2001  1371-RECN-2001

**REFERENCES:**
1. FM 5-101-5-1 Operational Terrain and Symbols
2. JP 3-34 Joint Engineer Operations
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
4. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
5. MCRP 3-17.7D Concrete and Masonry
6. MCRP 3-17.7F Project Management
7. MCRP 3-17.7I Earthmoving Operations
8. MCWP 3-17 Engineering Operations
9. MCWP 3-17.4 Engineer Reconnaissance
10. MCWP 3-17.8 Combined Arms Mobility Operations
11. MCWP 3-41.1 Rear Area Operations
12. NAVAIR 00-80T-115 Expeditionary Airfield NATOPS Manual

**SUPPORT REQUIREMENTS:**
**RANGE/TRAINING AREA:**
Facility Code 17413 Field Training Area
Facility Code 17420 Maneuver/Training Area, Heavy Forces
Facility Code 17931 Medium/Heavy Equipment Training Area
**EQUIPMENT:** Engineer earthmoving equipment, Engineer Material Handling Equipment, Utilities equipment.

---

**ENGR-HORZ-5002:** Prepare site for construction

**SUPPORTED MET(S):**
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Prepare site for construction to reduce construction time and meet design specifications. This includes all types of limited vertical and horizontal construction.

**CONDITION:** Given a mission, a support plan, an initial survey, a site for construction or engineer operations, commander's intent, task organized personnel and equipment, and references.

**STANDARD:** To reduce construction time and meet design specifications in accordance with the concept of operations and commander's intent.

**EVENT COMPONENTS:**
1. Review construction site plan.
2. Analyze support requirements and location(s).
3. Conduct final coordination with supported unit (location, requirements, security, ground guides, etc.).
4. Conduct final coordination with supporting units (logistics, etc.).
5. Move to site.
6. Conduct area clearance.
7. Conduct earthmoving operations, as required.
8. Conduct demolition operations, as required.
9. Conduct material handling operations, as required.
10. Provide utilities support, as required.
11. Submit required reports.

**CHAINED EVENTS:**
- ENGR-EQIP-4001
- ENGR-HORZ-4001
- ENGR-MOBL-4005
- ENGR-RECN-4001
- ENGR-RECN-4004
- ENGR-UTIL-4001
- ENGR-VERT-4002

**RELATED EVENTS:**
- 1169-ADMN-2002
- 1169-ADMN-2003
- 1169-ADMN-2021
- 1169-ADMN-2022
- 1169-XENG-2501
- 1169-XENG-2502
- 1169-XENG-2521
- 1169-XENG-2522
- 1169-XENG-2561
- 1169-XENG-2621
- 1169-XENG-2622
- 1169-XENG-2721
- 1169-XENG-2821
- 1169-XENG-2965
- 1169-XENG-2966
- 1302-DEMO-1001
- 1302-DEMO-1002
- 1302-HORZ-1001
- 1302-HORZ-1002
- 1302-RECN-1001
- 1371-DEMO-1001
- 1371-DEMO-2002
- 1371-EOPS-2005
- 1371-EOPS-2006
- 1371-HORZ-1001
- 1371-HORZ-1002
- 1371-HORZ-1003
- 1371-HORZ-1004
REFERENCES:
1. FM 5-33 Terrain Analysis
2. MCRP 2-3A Intelligence Preparation of the Battlefield/Battlespace
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
4. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
5. MCRP 3-17.7F Project Management
6. MCRP 3-17.7I Earthmoving Operations
7. MCRP 3-17A Engineering Field Data
8. MCRP 3-17B Engineer Forms and Reports
9. MCWP 3-17 Engineering Operations
10. MCWP 3-17.4 Engineer Reconnaissance

SUPPORT REQUIREMENTS:

**EQUIPMENT:** Engineer earthmoving equipment, Material Handling Equipment, Motor Transportation equipment, Utilities equipment.

**ENGR-MANT-5001:** Maintain engineer equipment

**SUPPORTED MET(S):** MCT 5.3.3.3

**EVALUATION-CODED:** YES **SUSTAINMENT INTERVAL:** 3 months

**DESCRIPTION:** The MWSS engineer company, maintenance platoon possesses an organic capability to conduct organizational maintenance and limited intermediate maintenance of assigned engineer equipment and organizational maintenance of engineer equipment for supported unit(s), except for the elements of the MACG.

**CONDITION:** With equipment, tools, repairs parts, supplies, personnel and references.

**STANDARD:** To sustain equipment in an operational status at or above unit readiness requirements.

**EVENT COMPONENTS:**
1. Manage maintenance programs.
2. Monitor equipment readiness.
3. Conduct reconciliation.
4. Assign tasks.
5. Maintain utilities equipment, as required.
6. Maintain bulk fuel equipment, as required.
7. Maintain MHE, as required.
8. Maintain earthmoving equipment, as required.
9. Maintain other organic tactical engineer equipment, as required.
10. Submit required reports.
CHAINED EVENTS: ENGR-MANT-4001

RELATED EVENTS:

- 1120-ADMN-2006
- 1120-ADMN-2021
- 1120-ADMN-2051
- 1120-ADMN-2065
- 1120-ADMN-2073
- 1120-ADMN-2084
- 1310-ADMN-2004
- 1310-MANT-2002
- 1310-MANT-2003
- 1310-MANT-2004
- 1310-MANT-2005
- 1310-MANT-2006

REFERENCES:

1. Applicable technical references
2. DoDI 6055.1 DoD Safety and Occupational Health (SOH) Program
3. MCBUL 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
4. MCO 4733.1 Marine Corps Test, Measurement, and Diagnostics Equipment (TMDE) Calibration and Maintenance Program (CAMP)
5. MCO 4790.18 Corrosion Prevention and Control (CPAC) Program
6. MCO 5100.29 Marine Corps Safety Program
7. MCWP 4-11 Tactical-Level Logistics
8. MCWP 4-11.4 Maintenance Operations
9. MCWP 4-11.6 Petroleum and Water Logistics Operations
10. SOP Standard Operating Procedures (SOP)
11. TM 11275-15/3 Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment
12. TM 4700-15/1 Ground Equipment Record Procedures

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
- Facility Code 17631 Light Antiarmor Weapons Range Live
- Facility Code 17931 Medium/Heavy Equipment Training Area

EQUIPMENT: Maintenance Contact vehicle

MATERIAL: Tools sets chests and kits

UNITS/PERSONNEL: Engineer equipment mechanics, utilities maintenance personnel, welders, equipment operators and bulk fuel personnel

OTHER SUPPORT REQUIREMENTS: POL and HAZ-MAT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: ORM

ENGR-MOBIL-5001: Conduct Airfield Damage Repair (ADR)
SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: These repairs may be required due to enemy or friendly action/damage, lack of maintenance, poor construction techniques (for existing surfaces), or environmental damage. May be part of airfield damage repair or as part of BRAAT.

CONDITION: Given a tactical situation, an operations order, commander's intent, an airfield/landing zone requiring repair, task organized personnel and equipment, and references.

STANDARD: To restore the air field/landing zone operating surfaces to minimum operational capability within the design criteria and the commander's intent.

EVENT COMPONENTS:
1. Plan airfield damage repair.
2. Coordinate airfield damage repair.
3. Conduct engineer reconnaissance/damage assessment of airfield operating surfaces.
4. Task organize personnel and equipment.
5. Receive minimum operating strip coordinates.
6. Receive EOD operations information.
7. Conduct crater repair as required.
8. Conduct spall repair as required.
9. Conduct foreign object debris clearance as required.
10. Submit required reports.

CHAINED EVENTS:
ENGR-MOBL-4002 ENGR-MOBL-4003 ENGR-RECN-4001
HQCO-OPS-4001 HQCO-OPS-4002

RELATED EVENTS:
1302-EOPS-1004 1302-EOPS-1009 1302-RECN-1001
1371-RECN-2001

REFERENCES:
1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2D Explosive Hazard Operations
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
4. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
5. MCRP 3-17.7L Explosives and Demolitions
6. MCRP 3-17A Engineering Field Data
7. MCRP 3-17B Engineer Forms and Reports
8. MCWP 3-17 Engineering Operations
9. MCWP 3-17.4 Engineer Reconnaissance
10. MCWP 3-17.8 Combined Arms Mobility Operations
11. MCWP 3-21.1 Aviation Ground Support
12. UFC 3-270-07 Airfield Damage Repair
SUPPORT REQUIREMENTS:

**RANGE/TRAINING AREA:** Facility Code 17918 Road/Airfield Construction Training Site

**EQUIPMENT:** Equipment for Combat Engineers, MHE, EOD and MWSS personnel.

**ENGR-MOBL-5002:** Construct Tactical Landing Zones (TLZs)

**SUPPORTED MET(S):**
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Conduct construction of tactical landing zones; includes but is not limited to site selection, construction, repair, and maintenance of existing or expeditionary airfields, landing zones, and other facilities for takeoff and landing of fixed and rotary wing aircraft in support of MAGTF operations.

**CONDITION:** Given a mission, commander’s intent, available resources, and references.

**STANDARD:** To create, repair, and maintain tactical landing zones that meet or exceed landing zone requirements listed in the design specifications per type, model, series, and number of aircraft.

**EVENT COMPONENTS:**
1. Task organize.
2. Conduct engineer reconnaissance and survey.
3. Develop production estimation.
4. Estimate engineer equipment requirements.
5. Coordinate necessary support.
6. Finalize construction plan.
7. Issue the order.
8. Construct/repair airfield, landing zone, or other facilities as required.
9. Maintain and improve airfield, landing zone, or other facilities as required.
10. Submit required reports.

**CHAINED EVENTS:**
- ENGR-EQIP-4001  ENGR-HORZ-4001  ENGR-MOBL-4002
- ENGR-MOBL-4003  ENGR-RECN-4001  ENGR-VERT-4005

**RELATED EVENTS:**

**REFERENCES:**
1. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
2. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the
Theater of Operations - Airfield and Heliport Design
3. MCRP 3-17.7L Explosives and Demolitions
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCRP 4-11.3E Multi-service Helicopter Sling Load Vol 1&2
7. MCWP 3-17 Engineering Operations
8. MCWP 3-17.4 Engineer Reconnaissance
9. MCWP 3-17.8 Combined Arms Mobility Operations
10. MCWP 3-21.1 Aviation Ground Support
11. NAVAIR 00-80T-115 Expeditionary Airfield NATOPS Manual
12. UFC 3-270-07 Airfield Damage Repair

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17918 Road/Airfield Construction Training Site

EQUIPMENT: Engineer Earthmoving equipment, Material Handling equipment, Utilities equipment.

ENGR-MOBL-5003: Conduct area clearance operations

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.1.1.3.4  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Conduct area clearance operations to eliminate obstacle(s) [explosive or non-explosive] to provide a secure environment.

CONDITION: Provided a mission, designated area with known/potential/suspected obstacle(s), personnel, engineer tools and equipment, intelligence support, demolitions tools, explosives, and references.

STANDARD: To eliminate all obstacle(s) [explosive or non-explosive] in an area to provide a cleared environment for military operations in accordance with the commander's intent.

EVENT COMPONENTS:
1. Task organize.
2. Conduct engineer reconnaissance and survey.
3. Estimate engineer equipment requirements.
4. Coordinate necessary support.
5. Finalize clearing plan.
6. Issue the order.
7. Locate all obstacle(s).
8. Identify all obstacle(s).
9. Reduce obstacle(s).
10. Verify obstacle reduction.
11. Coordinate explosive ordnance disposal activities as required.
12. Coordinate weapons intelligence team activities as required.
13. Coordinate with other specialist personnel as required.
14. Mark cleared area as required.
15. Submit required reports.

CHAIN EVENTs:
AOPS-EOD-3007   ENGR-EQIP-4001   ENGR-MOBL-4005
ENGR-RECN-4001

RELATED EVENTS:
1302-MOBL-1003   1302-MOBL-1004   1302-MOBL-1005
1302-MOBL-1009   1302-MOBL-1010   1302-RECN-1001
1371-DEMO-1001   1371-MOBL-1001   1371-MOBL-1002
1371-MOBL-1003   1371-MOBL-2012   1371-MOBL-2017
1371-MOBL-2010   1371-MOBL-2019   1371-MOBL-2020
1371-MOBL-2021   1371-MOBL-2022   1371-MOBL-2023
1371-RECN-1001   1371-RECN-2001

REFERENCES:
1. FM 5-101-5-1 Operational Terrain and Symbols
2. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
3. MCRP 2-3A Intelligence Preparation of the Battlefield/Battlespace
4. MCRP 3-17.2D Explosive Hazard Operations
5. MCRP 3-17.7L Explosives and Demolitions
6. MCRP 3-17A Engineering Field Data
7. MCRP 3-17B Engineer Forms and Reports
8. MCWP 3-13.2 MINE WARFARE
9. MCWP 3-17 Engineering Operations
10. MCWP 3-17.3 MAGTF Breaching Operations
11. MCWP 3-17.4 Engineer Reconnaissance
12. MCWP 3-17.8 Combined Arms Mobility Operations
13. MCWP 3-33 Military Operations Other Than War (MOOTW)
14. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17420 Maneuver/Training Area, Heavy Forces
Facility Code 17830 Light Demolition Range

EQUIPMENT: Combat engineer equipment

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Type/quantities of ammunition, explosives and pyrotechnics are documented with the 4000 Level Events Chained to this event.

ENGR-MOBL-5004: Construct expedient Helicopter Landing Zone (HLZ)

SUPPORTED MET(S):
MCT 5.3.3.3   MCT 6.3.3
EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Conduct construction of expedient Helicopter Landing Zone (HLZ); includes but not limited to clearing and grubbing and stripping geographical locations for takeoff and landing of rotary wing aircraft in support of troop transport, resupply, medevac operations, etc.

CONDITION: Given a mission, commander's intent, available resources, and references.

STANDARD: To create a landing site that will support rotary wing aircraft for the loading and unloading of personnel, resupply, and equipment in accordance with commander's intent, concept of operations and supported unit requirements.

EVENT COMPONENTS:
1. Conduct engineer reconnaissance and survey.
2. Task organize.
3. Coordinate resource requirements.
4. Issue the order.
5. Clear landing site.
6. Maintain and improve landing site as required.
7. Submit required reports.

CHAINED EVENTS:
ENGR-EQIP-4001  ENGR-HORZ-4001  ENGR-MOBL-4005
ENGR-RECN-4001  ENGR-VERT-3001

RELATED EVENTS:
1302-MOBL-1016  1302-RECN-1001  1371-EOPS-1003
1371-EOPS-2008  1371-MOBL-2001  1371-RECN-1001
1371-RECN-2001

REFERENCES:
1. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
2. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
3. MCRP 3-17.7F Project Management
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.4 Engineer Reconnaissance
6. MCWP 3-17.8 Combined Arms Mobility Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17420 Maneuver/Training Area, Heavy Forces
Facility Code 17918 Road/Airfield Construction Training Site

EQUIPMENT: Engineer Earthmoving equipment, Engineer Material Handling equipment, Survey equipment.
ENGR-OPS-5001: Conduct demolition operations

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Employ Class V supplies to reduce/destroy obstacles (explosive and non-explosive) or to create obstacles such as craters, ditches, in support of the ACE.

CONDITION: Given a tactical situation, an order, task organized equipment and personnel, specifications, demolition materials, and appropriate references.

STANDARD: To achieve desired effects in accordance with commander’s intent.

EVENT COMPONENTS:
1. Coordinate engineer reconnaissance.
2. Plan demolition operations.
3. Coordinate with required supporting units.
4. Destroy captured arms and ammunition as required.
5. Employ demolitions in support of mobility operations as required.
7. Employ demolitions in support of countermobility operations.
8. Submit required reports.

CHAINED EVENTS:
AOPS-EOD-3003  ENGR-CMOB-4003  ENGR-MOBL-4005
ENGR-RECN-4001  ENGR-SURV-4006

RELATED EVENTS:
1302-DEMO-1001  1302-DEMO-1002  1302-DEMO-1003
1302-DEMO-1004  1302-RECN-1001  1371-DEMO-2001

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCWP 3-17.5 Combined Arms Obstacle Integration
3. JP 3-15 Barriers, Obstacles, and Mine Warfare for Joint Operations
4. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
5. MCRP 3-17.2D Explosive Hazard Operations
6. MCRP 3-17.7D Concrete and Masonry
7. MCRP 3-17.7L Explosives and Demolitions
8. MCRP 3-17A Engineering Field Data
9. MCWP 3-17 Engineering Operations
10. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal
11. MCWP 3-17.4 Engineer Reconnaissance
12. MCWP 3-17.6 Survivability
13. MCWP 3-17.7 General Engineering
14. MCWP 3-17.8 Combined Arms Mobility Operations

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range
EQUIPMENT: Combat engineer demolitions kit.

UNITS/PERSONNEL: Range Safety Officer, Corpsman.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Type/quantities of ammunition, explosives and pyrotechnics are in concert with the 4000 level events chained to this event.

**ENGR-RECN-5001**: Conduct engineer reconnaissance

**SUPPORTED MET(S):**
- MCT 5.3.3.3
- MCT 6.1.1.3.4
- MCT 6.3.3

**EVALUATION-CODED**: YES **SUSTAINMENT INTERVAL**: 6 months

**DESCRIPTION**: Conduct engineer reconnaissance to collect data and obtain detailed information, within/along designated routes, zones, and/or areas that provides the ACE information on terrain and infrastructure (e.g., built-up areas, transportation networks, utilities and existing natural or manmade obstacles/resources) necessary to support ongoing or future operations.

**CONDITION**: Given a mission, commander's intent, task organization of personnel and equipment, and references.

**STANDARD**: To gather all relevant engineer data, and produce an engineer estimate (or designated products IAW unit SOPs or guidance) in accordance with the concept of operations and commander's intent.

**EVENT COMPONENTS**:
1. Review reconnaissance plan.
2. Analyze support requirements and location(s).
3. Conduct final coordination with supported unit (location, requirements, security, ground guides, etc.).
4. Conduct final coordination with supporting units (logistics, etc.).
5. Conduct zone reconnaissance, as required.
6. Conduct area reconnaissance, as required.
7. Conduct route reconnaissance, as required.
8. Conduct host-nation infrastructure assessment, as required.
9. Submit required reports.

**CHAINED EVENTS**:
- ENGR-RECN-4001
- ENGR-RECN-4002
- ENGR-RECN-4003
- ENGR-RECN-4004

**RELATED EVENTS**:
- 1302-RECN-1001
- 1371-RECN-1001
- 1371-RECN-2001

**REFERENCES**:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. 5-446 Military Non-Standard Fixed Bridge
3. GTA 05-07-013 Rapid Field Classification Booklet
4. GTA 5-2-5 Engineer Reconnaissance
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
8. MCWP 3-17 Engineering Operations
9. MCWP 3-17.4 Engineer Reconnaissance
10. MCWP 3-17.5 Combined Arms Countermobility Operations
11. MCWP 3-17.8 Combined Arms Mobility Operations

**ENGR-SURV-5001:** Construct survivability positions

**SUPPORTED MET(S):**
MCT 5.3.3.3  
MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Construct positions designed to reduce the vulnerability of personnel, equipment, weapons, and supplies to enemy fire and as a means to enhance force protection. Positions may include fighting and protective positions.

**CONDITION:** Provided a mission, commander's intent, reconnaissance reports, survivability plan, a task organization of personnel and equipment, and references.

**STANDARD:** That meets the mission requirements in accordance with the concept of operations and commander's intent.

**EVENT COMPONENTS:**
1. Plan survivability construction.
2. Analyze engagement areas, battle positions, and weapons location.
3. Coordinate with supported unit for specific position placement and requirements.
4. Conduct engineer reconnaissance and survey.
5. Coordinate with supported unit for specific position placement and requirements.
6. Coordinate resources for project.
7. Conduct site preparation.
8. Harden existing structure(s), as required.
9. Eemplace pre-fabricated barriers, as required.
10. Provide SME input to AT/FP plan, as required.
11. Construct field fortification, as required.
12. Construct Vehicle Control Point (VCP), as required.
13. Construct Entry Access Point (EAP), as required.
14. Construct earth filled barrier/structure, as required.
15. Construct individual fighting positions, as required.
16. Construct vehicle fighting positions, as required.
17. Construct vehicle survivability positions, as required.
18. Construct revetment, as required.
19. Construct crew-served weapon positions, as required.
20. Construct overhead cover, as required.
21. Construct shelter/bunker, as required.
22. Construct berms, as required.
23. Conduct earthmoving operations, as required.
24. Construct triggering screen, as required.
25. Provide electrical power, as required.
26. Submit required reports.

**CHAINED EVENTS:**

<table>
<thead>
<tr>
<th>ENGR-EQIP-3003</th>
<th>ENGR-EQIP-4001</th>
<th>ENGR-RECN-4001</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-SURV-3001</td>
<td>ENGR-SURV-3002</td>
<td>ENGR-SURV-3003</td>
</tr>
<tr>
<td>ENGR-SURV-3004</td>
<td>ENGR-SURV-3005</td>
<td>ENGR-SURV-3006</td>
</tr>
<tr>
<td>ENGR-SURV-3007</td>
<td>ENGR-SURV-4001</td>
<td>ENGR-SURV-4002</td>
</tr>
<tr>
<td>ENGR-SURV-4003</td>
<td>ENGR-SURV-4004</td>
<td>ENGR-SURV-4005</td>
</tr>
<tr>
<td>ENGR-SURV-4007</td>
<td>ENGR-UTIL-3004</td>
<td>HQCO-ABGD-4001</td>
</tr>
<tr>
<td>HQCO-ABGD-4002</td>
<td>HQCO-ABGD-4003</td>
<td>HQCO-ABGD-4004</td>
</tr>
<tr>
<td>HQCO-ABGD-4005</td>
<td>HQCO-ABGD-4006</td>
<td></td>
</tr>
</tbody>
</table>

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>1302-SURV-1001</th>
<th>1302-SURV-1002</th>
<th>1302-SURV-1003</th>
</tr>
</thead>
<tbody>
<tr>
<td>1302-SURV-1004</td>
<td>1302-SURV-1005</td>
<td>1371-SURV-1001</td>
</tr>
<tr>
<td>1371-SURV-2001</td>
<td>1371-SURV-2002</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES:**

1. FM 3-21.75 The Warrior Ethos and Soldier Combat Skills
2. JP 3-34 Joint Engineer Operations
3. MCRP 3-17.7C Carpentry
4. MCRP 3-17.7L Explosives and Demolitions
5. MCRP 3-17A Engineering Field Data
6. MCWP 3-17 Engineering Operations
7. MCWP 3-17.4 Engineer Reconnaissance
8. MCWP 3-17.5 Combined Arms Countermobility Operations
9. MCWP 3-17.6 Survivability
10. MCWP 3-33 Military Operations Other Than War (MOOTW)
11. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
12. MCWP 3-35.5 Jungle Operations
13. MCWP 3-35.6 Desert Operations
14. MCWP 3-41.1 Rear Area Operations
15. MCWP 4-11 Tactical-Level Logistics

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17420 Maneuver/Training Area, Heavy Forces

**EQUIPMENT:** Combat engineer equipment, Engineer earthmoving and material handling equipment, utilities equipment.

**MATERIAL:** Map, Compass, Protractor, Overlay sheets, Reconnaissance reports.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** ORM
ENGR-SURV-5002: Harden existing structure(s)

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: To harden existing structures in order to reduce the vulnerability of personnel, equipment, weapons, and supplies to enemy fire and as a means to enhance force protection.

CONDITION: Provided a mission, in an urban environment, commander's intent, reconnaissance reports, survivability plan, task organized personnel and equipment, and references.

STANDARD: To harden an existing structure that meets the mission requirements and supports the concept of operations in accordance with the commander's intent.

EVENT COMPONENTS:
1. Plan structure hardening.
2. Conduct engineer reconnaissance and survey.
3. Analyze reconnaissance reports.
4. Coordinate with supported unit for specific position requirements.
5. Coordinate resources for project.
7. Construct perimeter security, as required.
8. Shore walls/floors/roofs, as required.
9. Remove/reinforce windows as required.
10. Compartmentalize interior of structure, as required.
11. Emplace prefabricated barriers, as required.
12. Construct earth filled barrier/structure, as required.
13. Conduct earthmoving operations, as required.
14. Construct overhead cover as, required.
15. Construct shelter/bunker as, required.
16. Construct triggering screen, as required.
17. Wire position for electricity, as required.
18. Submit required reports.

CHAINED EVENTS:
ENGR-EQIP-3003  ENGR-EQIP-4001  ENGR-RECN-4001
ENGR-SURV-3001  ENGR-SURV-3004  ENGR-SURV-3005
ENGR-SURV-3006  ENGR-SURV-4001  ENGR-SURV-4002
ENGR-SURV-4005  ENGR-UTIL-3004

RELATED EVENTS:
1302-SURV-1001  1302-SURV-1002  1302-SURV-1003
1302-SURV-1005  1371-SURV-1001  1371-SURV-2001
1371-SURV-2002

REFERENCES:
1. FM 3-21.75 The Warrior Ethos and Soldier Combat Skills
2. MCRP 3-17A Engineering Field Data
3. MCWP 3-17 Engineering Operations
4. MCWP 3-17.4 Engineer Reconnaissance
5. MCWP 3-17.5 Combined Arms Countermobility Operations
6. MCWP 3-17.6 Survivability
7. MCWP 3-33 Military Operations Other Than War (MOOTW)
8. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17420 Maneuver/Training Area, Heavy Forces

**EQUIPMENT:** Engineer earthmoving equipment, combat engineer tools and kits, utilities equipment.

---

**ENGR-UTIL-5001:** Provide utilities support

**SUPPORTED MET(S):**
MCT 5.3.3.3  MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Provide tactical electrical supply and distribution; heating, ventilation, air conditioning and refrigeration service; and maintenance capabilities for specified utilities equipment in accordance with the unit's mission statement.

**CONDITION:** Given a mission, support plan, equipment availability, personnel, equipment, and references.

**STANDARD:** To provide support IAW with the concept of operations and in accordance with commander's intent.

**EVENT COMPONENTS:**
1. Coordinate supported unit requirements.
2. Establish utilities plan.
3. Establish utilities site(s).
4. Provide tactical electrical support, as required.
5. Provide non-tactical utilities support, as required.
6. Provide water production/storage/distribution equipment.
7. Maintain utilities equipment.
8. Recover utilities equipment, as required.
9. Submit required reports.

**CHAINED EVENTS:**
- ENGR-EQIP-4001
- ENGR-MANT-4001
- ENGR-UTIL-4001
- ENGR-UTIL-4002
- ENGR-UTIL-4003

**RELATED EVENTS:**
- 1120-ADMN-2001
- 1120-ADMN-2002
- 1120-ADMN-2003
- 1120-ADMN-2004
- 1120-ADMN-2005
- 1120-ADMN-2006
- 1120-ADMN-2007
- 1120-ADMN-2012
- 1120-ADMN-2021
- 1120-ADMN-2022
- 1120-ADMN-2031
- 1120-ADMN-2051
REFERENCES:

1. Appropriate Technical Manuals
2. 29 CFR 1910.147 Chapter 29, Code of Federal Regulations, Part Number 1910 (Occupational Safety and Health Standards), Standard Number 147 - Control of Hazardous Energy (Lockout/Tagout)
5. 40 CFR 82 Chapter 40, Code of Federal Regulations, Part Number 82 (Protection of Stratospheric Ozone)
6. 42 USC 85 VI 7671 Title 42, United States Code, Chapter 85, Subchapter VI, Section 7671 (Ozone Protection)
7. FM 10-52 Water Supply in Theaters of Operation
8. FM 10-52-1 Water Supply Point Equipment and Operations
9. FM 5-424 Theater of Operations Electrical Systems
10. JP 4-03 Joint Bulk Petroleum and Water Doctrine
11. MCO 5090.1 Chlorofluorocarbons (CFC's) and Halons
12. MCRP 3-17B Engineer Forms and Reports
13. MCRP 4-11.1D Field Hygiene and Sanitation
14. MCRP 4-11B Environmental Considerations
15. MCWP 3-17 Engineering Operations
16. MCWP 3-17.4 Engineer Reconnaissance
17. MCWP 4-11 Tactical-Level Logistics
18. MCWP 4-11.4 Maintenance Operations
19. MCWP 4-11.6 Petroleum and Water Logistics Operations
20. MCWP 5-1 Marine Corps Planning Process (MCPP)
21. NAVMED P-5010-5 Manual of Naval Preventive Medicine, Chapter 5, Water Supply Ashore
22. NEC (NFPA 70) National Electrical Code - by National Fire Protection Association
23. TB MED 577 Occupational and Environmental Health Sanitary Control and Surveillance of Field Water Supplies
24. TB MED 593 Guidelines for Field Waste Management
25. TC 3-34.489 The Soldier and the Environment
26. TM 11275-15/3_ Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment
27. TM 12359A-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** Utilities equipment, Engineer Material Handling Equipment, Motor Transport equipment, HAZMAT handling equipment.

---

**ENGR-VERT-5001:** Conduct vertical construction

**SUPPORTED MET(S):**

| MCT 5.3.3.3 | MCT 6.3.3 |

**EVALUATION-CODED:** YES **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** To conduct vertical construction in order to build or provide improvements to existing structures or construction of base camps, command posts, and maintenance facilities for use by the ACE.

**CONDITION:** Given a mission, commander's intent, tactical situation, task organized equipment and personnel, design specifications, construction materials and appropriate references.

**STANDARD:** To build and/or improve facilities that meet the minimum requirements listed in the design specifications in accordance with the commander's intent and concept of operations.

**EVENT COMPONENTS:**

1. Plan vertical construction.
2. Conduct engineer reconnaissance.
3. Conduct survey, as required.
4. Coordinate resources for project.
5. Conduct site preparation.
6. Repair facility, as required.
7. Erect prefabricated structure, as required.
8. Construct wood frame structure, as required.
9. Construct timber structure, as required.
10. Construct expedient drainage structure, as required.
11. Wire structure for electricity as required.
12. Plumb structure as required.
13. Submit required reports.

**PREREQUISITE EVENTS:** ENGR-RECN-5001

**CHAINED EVENTS:**

<table>
<thead>
<tr>
<th>ENGR-EQIP-4001</th>
<th>ENGR-HORZ-4001</th>
<th>ENGR-RECN-4001</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-UTIL-3004</td>
<td>ENGR-UTIL-3012</td>
<td>ENGR-VERT-4001</td>
</tr>
<tr>
<td>ENGR-VERT-4002</td>
<td>ENGR-VERT-4003</td>
<td>ENGR-VERT-4004</td>
</tr>
<tr>
<td>ENGR-VERT-4005</td>
<td>ENGR-VERT-4006</td>
<td>ENGR-VERT-4007</td>
</tr>
</tbody>
</table>
RELATED EVENTS:
1302-HORZ-1001  1302-RECN-1001  1302-VERT-1001
1371-EOPS-2010  1371-EOPS-2011  1371-HORZ-2002
1371-HORZ-2003  1371-HORZ-2004  1371-HORZ-2005
1371-RECN-1001  1371-VERT-1001  1371-VERT-1002
1371-VERT-1003  1371-VERT-1004  1371-VERT-1005
1371-VERT-2001  1371-VERT-2002

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. JP 3-15 Barriers, Obstacles, and Mine Warfare for Joint Operations
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations — Road Design
4. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations — Airfield and Heliport Design
5. MCRP 3-17.7C Carpentry
6. MCRP 3-17.7D Concrete and Masonry
7. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
8. MCRP 3-17.7F Project Management
9. MCRP 3-17.7I Earthmoving Operations
10. MCRP 3-17.7K Theater of Operations Electrical Systems
11. MCRP 3-17.7M Construction Estimating
12. MCRP 3-17.7N Base Camps
13. MCRP 3-17A Engineering Field Data
14. MCRP 4-11.1D Field Hygiene and Sanitation
15. MCWP 3-17 Engineering Operations
16. MCWP 3-33 Military Operations Other Than War (MOOTW)
17. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
18. MCWP 4-11 Tactical-Level Logistics
19. TM 5-232 Elements of Construction Surveying

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17420 Maneuver/Training Area, Heavy Forces

EQUIPMENT:  Engineer earthmoving equipment, material handling equipment, motor transportation equipment, combat engineer tools and kits

MATERIAL:  Class III/IV.

UNITS/PERSONNEL:  MT, UT, & HE operators, Engineers, Surveyors

HQCO-ABGD-5001:  Conduct guard force operations

SUPPORTED MET(S):  MCT 6.1.1.3.4

EVALUATION-CODED:  YES  SUSTAINMENT INTERVAL:  12 months

DESCRIPTION:  The MWSS forms the core of the interior guard force. Interior
guard forces are formed from an augment pool of personnel from the air base tenant units. The size of this force is dependent on security requirements and the watch schedule required. This force is used to provide security response to level I one threats. The Interior Guard will assist Response forces for level II threats. The BDOC can employ the guard force to provide delay tactics for level III threats until the GCE responds, where appropriate. Level I threats include enemy-controlled agents, enemy sympathizers and terrorism. Level II threats include small tactical units, unconventional warfare forces and guerrillas. Level III threats consist of large tactical force operations (e.g., airborne, helicopterborne, amphibious, infiltration) and major air operations.

**CONDITION:** Given the references, a facility, equipment, weapons and support personnel.

**STANDARD:** To protect and defend ACE areas so uninterrupted combat service support operations are maintained.

**EVENT COMPONENTS:**
1. Receive the order.
2. Issue the order.
3. Provide standing security for critical ACE facilities and areas.
4. Man sentinel posts around the air base.
5. Provide security to the flight line as required.
6. React to level I security threat, as required.
7. React to level II security threat, as required.
8. Provide delay tactics for a level III security threat, as required.
9. Reconstitute the force.
10. Conduct debrief.
11. Document the event.

**CHAINED EVENTS:**
HQCO-ABGD-4001 HQCO-ABGD-4002 HQCO-ABGD-4003
HQCO-ABGD-4004 HQCO-ABGD-4005 HQCO-ABGD-4006
HQCO-ABGD-4007

**REFERENCES:**
1. MCO 5530.15 U.S. Marine Corps Interior Guard Manual
2. MCWP 3-21.1 Aviation Ground Support
3. MCWP 3-41.1 Rear Area Operations
4. NAVMC 2691A Interior Guard
5. NAVMC 3500.44_ Infantry T&R Manual

**HQCO-ABGD-5002:** Conduct response force operations

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Response forces, commonly referred to as reaction forces, are those forces purposely standing by to quickly respond to emergencies and increased threat posture beyond the capabilities of the dedicated interior
guard force. The response force is the principal force the BDOC will use to respond to a Level II threat. Level II threats include small tactical units, unconventional warfare forces and Guerrillas. Level III threats consist of large tactical force operations (e.g., airborne, helicopterborne, amphibious, infiltration) and major air operations.

**CONDITION:** Given the references, a facility, equipment, weapons and support personnel.

**STANDARD:** To provide adequate security in order to maintain uninterrupted combat service support operations.

**EVENT COMPONENTS:**
1. Receive the order.
2. Issue the order.
3. Task organize the force.
4. React to level II security threat.
5. Provide delay tactics for a level III security threat, as required.
6. Reconstitute the force.
7. Conduct debrief.
8. Document the event.

**CHAINED EVENTS:**
HQCO-ABGD-4001   HQCO-ABGD-4002   HQCO-ABGD-4003
HQCO-ABGD-4004   HQCO-ABGD-4005   HQCO-ABGD-4006
HQCO-ABGD-4007

**REFERENCES:**
1. MCO 5530.15 U.S. Marine Corps Interior Guard Manual
2. MCWP 3-21.1 Aviation Ground Support
3. MCWP 3-41.1 Rear Area Operations
4. NAVMC 3500.44_ Infantry T&R Manual

**HQCO-ABGD-5003:** Conduct tenant unit force operations

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** As the level of enemy threat increases, the ACE or Site Commander may require all or parts of each tenant organization to support ABGD. Tenant units will fall under the control of the Tactical Security officer and BDOC. These unit's specific organization, responsibilities, and level of response are assigned in the ABGD plan. Level III threats consist of large tactical force operations (e.g., airborne, helicopterborne, amphibious, infiltration) and major air operations.

**CONDITION:** Given an operations order, ACE commander's intent, references, equipment, weapons and support personnel.

**STANDARD:** To provide security support to the ABGD in an identified sector of the ACE AO and prevent combat service support operations from interruption.
EVENT COMPONENTS:
1. Receive the operations order.
2. Coordinate with the BDOC.
3. Issue the order.
4. Task organize.
5. Provide delay tactics for a level III security threat, as required.
6. Transition to GCE augmentation.
7. Reconstitute the force.
8. Conduct debrief of the event.

CHAINED EVENTS:
HQCO-ABGD-4001  HQCO-ABGD-4002  HQCO-ABGD-4003
HQCO-ABGD-4004  HQCO-ABGD-4005  HQCO-ABGD-4006
HQCO-ABGD-4007

REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support
2. MCWP 3-41.1 Rear Area Operations

HQCO-ABGD-5004: Establish provisional security forces

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The RASC may assign the ACE to provide personnel and equipment to either augment or form provisional security forces. These forces consist of provisional mobile security platoons and helicopter security forces formed from augment personnel of various units. MCWP 3-41.1A covers the organization, responsibilities, and employment of the provisional security forces. The tactical combat force is a task-organized combat unit capable of quickly responding to enemy threats. The tactical combat force can range in size from a company to a regiment depending on the situation and factors of METT-T. It could be a combat unit temporarily in the rear area or a designated task-organized force with the capability to perform the mission. The tactical combat force should be capable of controlling ground and air fires and coordinating its actions with other Marine, joint, or host-nation forces. It should have sufficient mobility and should be located in a position that allows it to respond to potential threats in a timely fashion. The MAGTF rear area commander, if designated, directs MAGTF tactical combat force operations and ensures its integration with other rear area activities.

CONDITION: Given the references, a facility, equipment, weapons and support personnel.

STANDARD: To provide adequate security in order to maintain uninterrupted combat service support operations.

EVENT COMPONENTS:
1. Receive mission from the RAOC.
2. Establish RAS threat control plan.
3. Task organize the force.
4. Train the force.
5. Coordinate with supporting and supported units.
6. Coordinate route patrol protection as required.
7. Coordinate convoy protection as required.
8. Coordinate surveillance as required.
9. Coordinate reconnaissance as required.
10. Coordinate defense of enemy drops in Helicopter Landing Zone (HLZ) and Lzs as required.
11. Coordinate provisional helicopter borne security force as required.
12. Augment other security forces as directed.
13. Issue the order.
14. Respond to threat in a timely manner.
15. Re-group the force.
16. Conduct a debrief.
17. Document event.

CHAINED EVENTS:
HQCO-ABGD-4001   HQCO-ABGD-4002   HQCO-ABGD-4003
HQCO-ABGD-4004   HQCO-ABGD-4005   HQCO-ABGD-4006
HQCO-ABGD-4007

REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support
2. MCWP 3-41.1 Rear Area Operations
3. NAVMC 3500.44_ Infantry T&R Manual

HQCO-COMM-5001: Provide single channel radio services

SUPPORTED MET(S):
MCT 4.6.3     MCT 5.3.2.12      MCT 5.3.3.3
MCT 6.1.1.3.4  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 2 months

DESCRIPTION: The platoon will provide single channel radio services IAW the Radio Network Plan utilizing all necessary support assets. An example of a successful task includes the physical layout and the configuration of all single channel radio assets that meet all functional and safety parameters.

CONDITION: Provided a command's mission, a Radio Network Plan, SAA, and all required equipment and personnel.

STANDARD: Within 1 hour to satisfy the commander's information exchange requirements.

EVENT COMPONENTS:
1. Conduct deliberate ORM.
2. Establish single channel radio networks by frequency band.
3. Extend radio services to end users.
4. Establish a radio watch.
RELATED EVENTS:
0602-PLAN-1101  0603-PLAN-2102  0621-INST-2401
0621-MNGT-2701  0621-OPER-2501  0629-MNGT-2701
0629-MNGT-2702  0629-PLAN-2101  0629-PLAN-2103

REFERENCES:
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCO 3500.27 Operational Risk Management (ORM)
4. MCWP 3-40.3 MAGTF Communications System
5. SOP Standard Operating Procedures (SOP)

HQCO-COMM-5002: Provide telephone services

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.2.12  MCT 5.3.3.3  
MCT 6.1.1.3.4  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The platoon will IOM all terminal devices IAW the Telephone Network Plan utilizing all necessary support assets. Examples of successful tasks include establishing secure and non-secure call processing according to Multi-Level Precedence and Preemption directives in a stand-alone, tandem or gateway architecture, and any special requirements such as conference calling or other features.

CONDITION: Given a command's mission, telephone network plan, all equipment and personnel, and an existing trunk.

STANDARD: Within 3 hours to satisfy the command's circuit switching requirements.

EVENT COMPONENTS:
1. Validate cut sheets and diagrams.
2. Establish loops.
3. Install terminal devices.
4. Provide input for ISD.
5. Validate input for ISD.
6. Provide end user support.

CHAINED EVENTS: HQCO-COMM-4002

RELATED EVENTS:
0603-PLAN-2104  0610-DSGN-2201  0610-ENGR-2301
0610-MNGT-2701  0610-MNGT-2702  0610-MNGT-2703
0610-PLAN-2101  0612-MANT-2601  0612-MNGT-2702
0612-MNGT-2704  0619-MNGT-2701  0619-PLAN-2101

REFERENCES:
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCWP 3-40.3 MAGTF Communications System

HQCO-COMM-5003: Execute a cabling plan

SUPPORTED MET(S):
- MCT 4.6.3
- MCT 5.3.2.12
- MCT 5.3.3.3
- MCT 6.3.3

EVALUATION-CODED: YES
SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The platoon will IOM all required cable runs to provide connectivity between transmission mediums, and switching systems including inside and outside plant installation.

CONDITION: Given a command's mission, communications plan, and all equipment and personnel.

STANDARD: Within the time allotted by the commander and with signal quality levels appropriate to the medium.

EVENT COMPONENTS:
1. Validate cut sheets and CCSD/SLD.
2. Validate line route map.
3. Install cable runs.
4. Establish inside plant.
5. Establish outside plant.

RELATED EVENTS:
- 0612-MNGT-2701
- 0612-MNGT-2703
- 0613-MNGT-2701
- 0613-OPER-2501
- 0619-MNGT-2702
- 0619-PLAN-2101

REFERENCES:
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCWP 3-40.3 MAGTF Communications System

HQCO-COMM-5004: Provide data network services

SUPPORTED MET(S):
- MCT 4.6.3
- MCT 5.3.2.12
- MCT 5.3.3.3
- MCT 6.3.3

EVALUATION-CODED: YES
SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The platoon will employ data network resources IAW the Data Network Plan utilizing all necessary support assets. Examples of successful tasks include the installation of switches, routers, servers and boundary protection devices to provide access to secure/non-secure email, web browsing and other required data network services.
CONDITION: Given a command's mission, a Data Network Plan, all equipment and personnel, an approved certification and accreditation package, and an existing digital backbone.

STANDARD: Within 48 hours to satisfy the commander's information exchange requirements.

EVENT COMPONENTS:
1. Install network architecture.
2. Install boundary protection devices.
3. Install data network services.
4. Conduct computer network defense.
5. Enforce information assurance policies.
6. Provide end user support.

CHAINED EVENTS: HQCO-COMM-4001

RELATED EVENTS:
0603-PLAN-2105  0603-PLAN-2106  0650-DSGN-2201
0650-DSGN-2202  0650-ENGR-2301  0650-MNGL-2701
0650-MNGL-2702  0650-MNGL-2703  0650-MNGL-2704
0650-MNGL-2708  0650-MNGL-2711  0650-PLAN-2101
0650-PLAN-2102  0651-INST-2401  0651-INST-2402
0651-INST-2403  0651-INST-2404  0651-MANGL-2601
0651-OPER-2501  0651-OPER-2502  0651-OPER-2503
0651-PLAN-2101

REFERENCES:
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCWP 3-40.3 MAGTF Communications System

HQCO-COMM-5005: Provide a communications network in support of a command element

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.2.12  MCT 5.3.3.3
MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The platoon will IOM all required communication and support assets IOT provide secure/non-secure voice (e.g. radio and telephony), video, data and real-time services in support of end user information exchange enabling command and control.

CONDITION: Given a command's mission, communications plan, an approved certification and accreditation package, and all equipment and personnel.

STANDARD: Within a time allotted by the commander, to satisfy information exchange requirements.
EVENT COMPONENTS:
1. Establish single channel radio networks.
2. Establish a technical control facility.
3. Establish a cabling plant.
5. Establish special circuits as required.
6. Implement COMSEC policies established by higher headquarters.
7. Implement information assurance policies.
8. Distribute services to end users.
10. Establish a systems control facility.

CHAINED EVENTS:
HQCO-COMM-4001 HQCO-COMM-4002

RELATED EVENTS:
0600-OPER-2503 0603-PLAN-2101 0603-PLAN-2107
0620-DSGN-2201 0620-DSGN-2202 0620-ENGR-2301
0620-ENGR-2302 0620-PLAN-2101 0620-PLAN-2102
0699-MNGT-2701 0699-MNGT-2703

REFERENCES:
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. EKMS-1 (series) EKMS Policy and Procedures for Navy EKMS Tiers 2 & 3
3. JP 6-0 Joint Communications System
4. MCWP 3-40.3 MAGTF Communications System

HQCO-MED-5001: Provide medical services

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The aid station provides direct Level I medical support and provides an advanced level of care in the overall effort to sustain the combat force. The aid station is designed to provide HSS under combat conditions. It operates as far forward as the tactical situation permits and prepares patients for return to duty or evacuation to the appropriate level of treatment.

CONDITION: Given personnel, equipment and supplies.

STANDARD: To triage, stabilize casualty and evacuate to higher level of care or return casualty to duty.

EVENT COMPONENTS:
1. Conduct triage.
2. Treat casualties.
3. Stabilize for evacuation.
4. Track casualties received.
5. Prepare casualty reports.
7. Transfer evacuees from aid station to evacuation platform.
8. Initiate medical treatment of combat stress casualties.
10. Provide ancillary services as stated in the TO/TE.
11. Maintain health records.
12. Coordinate personnel replacements/augmentees.
13. Provide medical resupply (replenishment).
15. Implement PREVMED/force health protection programs.

CHAINED EVENTS:
HQCO-MED-3001       HQCO-MED-3002       HQCO-MED-3005
HQCO-MED-4001

RELATED EVENTS:
8404-ADMN-2002       8404-HSS-2013         FMSO-ADMN-1101
FMSO-ADMN-1102       FMSO-ADMN-2002         FMSO-HSS-2013

REFERENCES:
1. MCRP 4-11.1G Patient Movement
2. MCWP 4-11.1 Health Service Support Operations
3. NAVMED P-117 Manual of the Medical Department
4. NAVMED P-5010 Navy Sanitation

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17413 Field Training Area

EQUIPMENT: AMAL (Authorized Medical Allowance List).

HQCO-MED-5002: Perform mass casualty

SUPPORTED MET(S):
MCT 5.3.3.3       MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: This can be performed anywhere. It may be a crew of personnel up
to the size of a battalion depending on the mission and situation.

CONDITION: Given multiple casualties that exceed existing resources,
personnel, equipment and supplies.

STANDARD: To provide appropriate stabilization care to casualties during a
mass casualty incident preventing further injury or death.

EVENT COMPONENTS:
1. Determine the nature of incident.
2. Activate mass casualty plan.
3. Identify non-medical assets available to assist.
5. Provide emergency treatment, as indicated.
6. Determine patient transportation requirements.
7. Establish communication for evacuation of casualties.
8. Reassess triage categories assigned, as needed (NATO Casualty Categories).

CHAINED EVENTS:
HQCO-MED-3001   HQCO-MED-3002   HQCO-MED-4001

RELATED EVENTS:
8404-HSS-2002   8404-HSS-2003   8404-HSS-2004
FMSO-HSS-2003   FMSO-HSS-2104   FMSO-MED-2102
FMSO-MED-2103

REFERENCES:
1. MCRP 4-11.1G Patient Movement
2. MCWP 4-11.1 Health Service Support Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17413 Field Training Area

EQUIPMENT: AMAL (Authorized Medical Allowance List).

HQCO-OPS-5001: Conduct Minimum Operating Strip (MOS) selection

SUPPORTED MET(S):
MCT 5.3.2.12   MCT 5.3.3.3   MCT 6.3.3

EVALUATION-CODED: YES   SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: After an airfield has been attacked, the MOS selection team is established in the AGSOC to receive airfield damage reports from the DATs and to determine the usable areas of the airfield for aircraft launch and recovery.

CONDITION: Given the references, personnel, equipment, and a damaged runway.

STANDARD: To provide an adequate solution to maintain uninterrupted ACE operations.

EVENT COMPONENTS:
1. Determine FOB operating conditions.
2. Determine surface roughness chart requirements.
3. Determine MOS and taxiway requirements.
4. Record and plot damage information.
5. Identify candidate MOSs.
6. Determine repair quality requirements on candidate MOSs.
7. Estimate explosive ordnance disposal (EOD) and RRR repair times.
8. Tabulate comparative recovery times for candidate MOSs. The MOS team leader calculates total estimated recovery times based on EOD and RRR times.
9. Brief site commander on candidate MOSs.
10. Select MOS.

CHAINED EVENTS:
ENGR-MOBL-4002  ENGR-MOBL-4003  HQCO-OPS-4001
HQCO-OPS-4002

REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support

SUPPORT REQUIREMENTS:

EQUIPMENT: Numerous items of equipment from various MOSs will be required to be utilized in order to accomplish this event. Equipment types and numbers can be found in the MCWP 3-21.1 Aviation Ground Support (AGS).

OTHER SUPPORT REQUIREMENTS:
The MOS selection team normally consists of:
1. Team leader, who performs the quality control of the MOS selection process, calculates the estimated repair time required to repair the runway and access routes and recommends the MOS location to higher authority.
2. A Data recorder who receives coordinates of airfield damage and UXO from the DAT and records this information on an MOS selection team record sheet.
3. A Data plotter who takes the information from the data recorder and plots the airfield damage and UXO locations on the airfield map (scale: 1 inch equal to 100 feet) located in the AGSOC.
4. A MOS selector who identifies potential MOS with access routes by using templates that should correspond to the type of aircraft operating at the airfield and their MOS requirements.

The collected information is presented to the team leader who calculates the time required to repair craters and spalls and to remove or render safe any UXOs located on the MOS. Once the MOS has been selected and approved by the air base commander, the repair information is passed to the ADR OIC who organizes teams to accomplish the physical repair effort.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:
The MOSs listed are necessary in various numbers to complete MOS selection: engineer equipment operator, motor transportation operator, utility Operator, EAF specialist, bulk fuel, combat engineer, motor transportation mechanic, engineer equipment mechanic, utility mechanic, and surveyor.

Numerous worksheets are required to be completed in order to accomplish this event. Worksheet information can be found in MCRP 3-21.1, Aviation Ground Support.
MTCO-OPS-5001: Conduct convoy operations

SUPPORTED MET(S):
MCT 5.3.3.3   MCT 6.1.1.3.4   MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: A tactical convoy is a deliberate planned combat operation to move personnel and/or cargo via ground transportation in a secure manner under the control of a single commander. Tactical convoys must have access to the current common operational picture and maintain an aggressive posture that is both agile and unpredictable. Contact with the enemy can be mitigated by security and detailed planning/coordination; however, the convoy should be prepared to take immediate action against any enemy threat.

CONDITION: Given vehicles, personnel, required tools and equipment.

STANDARD: Arrive at a determined location with all required equipment and personnel.

EVENT COMPONENTS:
1. Analyze the operation order.
2. Draft a movement order.
3. Identify classifications for routes.
4. Conduct a convoy commander's brief.
5. Create a defense plan for tactical convoy.
6. Establish convoy communication.
7. Conduct a debrief.
8. Perform land navigation.
9. Prepare a convoy commander's after action report.

CHAINED EVENTS:
MTCO-LIC-4001  MTCO-OPS-4001

REFERENCES:
1. ATP 4-11 Army Motor Transport Operations
2. Local SOP Local Standard Operating Procedures
3. MCWP 3-17.4 Engineer Reconnaissance
4. TC 21-305-20 Manual for the Wheeled Vehicle Operator
5. TM 08089B-OI/1A Operators Manual for Semitrailer, Tank: 5,000 Gallon Fuel Dispensing, Under/Overwing Aircraft (MK970)
6. TM 11165A-OR System Operational Manual for Truck, Tractor, 7-Ton, W/O Winch, MK31
7. TM 9-2320-280-10 Operator Manual for the 1 1/2 Ton M998
8. TM 9-2330-202-14&P Trailer, Cargo 3/4 Ton, 2-Wheel
9. TM 9-2330-213-14&P M103 Chassis, Trailer, 1 1/2 Ton, 2-Wheel
10. TM 9-2330-247-14&P M353 Chassis, Trailer, 3 1/2 Ton, 2-Wheel
11. TM 9-2330-267-14&P M149A/A1/A2 Trailer Tank Water, 1 1/2 Ton, 2-Wheel

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces
MTCO-OPS-5002: Establish a tactical motor pool

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The tactical motor pool supports the MWSS as well as other units operating out of the FOB (base camp and airfield). It provides a centralized location for the management and maintenance of motor transport assets.

CONDITION: Provided with the requirement, equipment and personnel.

STANDARD: To safely meet operational requirement with no injury to personnel or damage to equipment.

EVENT COMPONENTS:
1. Conduct site recon.
2. Prepare a security plan.
3. Develop space requirements for equipment.
4. Develop space requirements for facilities.
5. Construct road network requirements.
6. Prepare a defense plan.
7. Create a fire prevention plan.
8. Observe environmental considerations.

CHAINED EVENTS:
MTCO-LIC-4001  MTCO-OPS-4001

REFERENCES:
1. ATP 4-11 Army Motor Transport Operations
2. MCRP 3-0B How to Conduct Training
3. TM 11240-14/2 Logistic Consideration for Motor Transport Convoy Operations

3006. 4000-LEVEL EVENTS

AOPS-ARFF-4001: Conduct structural firefighting operations

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: ARFF Marines are trained and equipped to conduct structural firefighting operations in support of buildings on or near a FOB, to include adjacent Base Camps. In addition, ARFF personnel are trained and equipped to provide Emergency Medical Services and initial response to mishaps involving
Hazardous Materials.

**CONDITION:** Given a structural fire scenario, firefighting personnel, and firefighting vehicles/equipment.

**STANDARD:** To save lives and minimize fire damage to government property.

**EVENT COMPONENTS:**
2. Coordinate approach/positioning of vehicles at the site.
3. Protect nearby structures from fire/heat.
4. Conduct search and rescue of personnel.
5. Extinguish fires throughout the structure.
6. Maintain water resupply to firefighting vehicles and equipment.
7. Ensure all smoldering fires are extinguished.
8. Conduct salvage operations as necessary.
10. Write Incident Report.

**REFERENCES:**
1. IFSTA 36538 International Fire Service Training Association (IFSTA) 36538, Essentials of Fire Fighting and Fire Department Operations
2. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information
3. NFPA 1001 Standard for Fire Fighter Professional Qualifications

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17951 Fire Fighting And Rescue Training Area

**EQUIPMENT:** Firefighting vehicles outfitted with appropriate equipment and tools for structural firefighting, for example: ladders, hoses, forcible entry tools, etc.

**MISCELLANEOUS:**

**SPECIAL PERSONNEL CERTS:** All ARFF personnel should have the appropriate qualifications for the job/duties to be performed for example: Firefighter I, Firefighter II, Fire Apparatus Driver/Operator, etc.

**AOPS-ARFF-4002:** Conduct ARFF operations

**SUPPORTED MET(S):**

| MCT 4.6.3 | MCT 5.3.3.3 | MCT 6.3.3 |

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** ARFF Marines are trained and equipped to conduct aircraft firefighting operations in support of flight sorties at FOBs. ARFF personnel are task organized and equipped to provide immediate response to aircraft mishaps.
on the airfield and surrounding areas, emergency medical services, and initial response mishaps involving hazardous materials.

**CONDITION:** Given an aircraft mishap scenario, firefighting personnel, firefighting vehicles/equipment.

**STANDARD:** To save lives and minimize fire damage to aircraft.

**EVENT COMPONENTS:**
2. Coordinate approach/positioning of vehicles at the mishap site.
3. Coordinate extrication/egress of crewmembers/passengers.
4. Extinguish aircraft fires.
5. Extinguish fires at mishap site.
6. Manage immediate hazards related to ordnance and ammunitions.
7. Contain hazardous materials (fuel, hydraulic fluids/oils, composite fibers, etc.).
8. Conduct salvage operations as necessary.
10. Enter Incident Report into Marine Corps Fire Incident Reporting System (MCFIRS).

**REFERENCES:**
1. IFSTA 36538 International Fire Service Training Association (IFSTA) 36538, Essentials of Fire Fighting and Fire Department Operations
2. NAVAIR 00-80R-14 NATOPS U.S. Navy Aircraft Emergency Rescue Information
3. NFPA 1001 Standard for Fire Fighter Professional Qualifications
5. NFPA 1003 Standard for Airport Fire Fighter Professional Qualifications

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17951 Fire Fighting And Rescue Training Area

**EQUIPMENT:** Firefighting vehicles outfitted with appropriate equipment and tools for aircraft firefighting and rescue/extrication of flight crewmembers, for example: aircraft safety pins/down locks, forcible entry tools, specialized rescue tools, etc.

**MISCELLANEOUS:**

**SPECIAL PERSONNEL CERTS:** All ARFF personnel should have the appropriate qualifications for the job/duties to be performed for example: airport fire fighter, firefighter I, firefighter II, fire apparatus driver/operator, etc.

**AOPS-EAF-4001:** Provide aircraft arrestment capability

**SUPPORTED MET(S):**
MCT 4.6.3  MCT 5.3.3.3
EVALUATION-CODED: YES    SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The installation of the M-31 Marine Corps Expeditionary Arresting Gear System (MCEAGS) enables the ACE to operate from airfields that lack sufficient runway length to support T/M/S roll-out requirements when landing, or when aborting take-off. Additionally, M-31 MCEAGS can provide overrun protection for aircraft during aborted takeoffs and during inclement weather or adverse runway surface conditions.

CONDITION: Given a mission requirement, commander's intent, personnel, equipment and references.

STANDARD: To ensure operations are conducted in support of the ACE Commander's intent.

EVENT COMPONENTS:
1. Install the M-31 MCEAGS.
2. Obtain certification of M-31 MCEAGS.
3. Operate the M-31 MCEAGS.
4. Maintain M-31 MCEAGS.

REFERENCES:
1. NAVAIR 51-5FAA-1(_) M31 Marine Corps Expeditionary Arresting Gear System
2. NAVAIR 51-5FAA-2(_) M31 Periodic Maintenance Requirements
3. NAVAIR 51-5FAA-3 M31 Preoperational Checklist

AOPS-EAF-4002: Provide visual landing aids for terminal guidance of aircraft

SUPPORTED MET(S):
MCT 4.6.3    MCT 5.3.3.3

EVALUATION-CODED: YES    SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The Fresnel Lens Optical Landing System (FLOLS) provides optimal approach information to pilots intending to conduct an arrested landing utilizing the M-31 MCEAGS. The FLOLS provides a day/night visual reference enabling the pilot to fly a 3 degree glideslope that will touch the tailhook down 150-feet prior to the arresting gear cable. This minimizes the chance of an aborted landing due to hook-skip.

CONDITION: Given a mission requirement, commander's intent, personnel, equipment and tools and the references.

STANDARD: To ensure operations are conducted in support of the ACE Commander's intent.

EVENT COMPONENTS:
1. Determine FLOLS location.
2. Install FLOLS.
3. Obtain certification of FLOLS.
4. Operate FLOLS.
5. Maintain FLOLS.
REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support
2. NAVAIR 51-40ABA-14 Portable Shore Based Fresnel Lens OLS MK 8 MOD 0 & MOD1
3. NAVAIRINST 13800.12B Certification of Expeditionary Airfield AM-2 Mat Installations, Aircraft Recovery Equipment, Visual/Optical Landing Aids, and Marking/Lighting Systems

AOPS-EAF-4003: Provide airfield lighting/marketing

SUPPORTED MET(S):
MCT 4.6.3 MCT 5.3.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: EAF airfield marking and lighting systems provide pilots and aircrew with visual navigational cues when approaching and departing the airfield. Additionally, the systems enable safe navigation of airfield surfaces (runways, taxiways, etc.) during periods of reduced visibility.

CONDITION: Given a mission requirement, commander's intent, personnel, equipment and tools and the references.

STANDARD: To ensure operations are conducted in support of the ACE commander's intent.

EVENT COMPONENTS:
1. Determine lighting requirement.
2. Install lighting system.
3. Obtain certification, as required.
4. Operate lighting system
5. Maintain lighting system.

REFERENCES:
1. MCWP 3-21.1 Aviation Ground Support
2. NAVAIR 51-40ABA-18 Lighting & Marking for EAF Bare-Base Airfields
3. NAVAIR 51-40ABA-7 Lighting & Marking for EAF
4. NAVAIR 51-50ABA-16( _) Minimum Operating Strip Lighting System (MOSLS)

AOPS-EAF-4004: Conduct aircraft arrestment/recovery operations

SUPPORTED MET(S):
MCT 4.6.3 MCT 5.3.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: EAF Marines are trained and equipped to conduct aircraft arrestment operations in support of flight sorties at Forward Operating Bases (FOBs). An aircraft arrestment requires coordination of effort and operational precision in order to ensure the safe recovery of flight crew personnel and aircraft.
CONDITION: Given an aircraft requiring arrested landing, appropriate EAF personnel and equipment.

STANDARD: To ensure the safe recovery of flight crew personnel and aircraft.

EVENT COMPONENTS:
1. Conduct EAF equipment operational checks prior to commencing air operations.
2. Upon notification of an intended arrested landing, assign personnel to equipment as required.
3. Make proper settings on arresting equipment and FLOLS.
4. Provide a ready deck for arrestment.
5. Monitor the arrestment.
6. Clear the aircraft off arresting gear.
7. Maintain airfield/recovery operations daily journal.

REFERENCES:
1. NAVAIR 00-80T-115 Expeditionary Airfields Forward Operating Bases NATOPS Manual
2. NAVAIR 51-5-31(...) E28 Emergency Runway Arresting Gear
3. NAVAIR 51-5FAA-1(...) M31 Marine Corps Expeditionary Arresting Gear System
4. NAVAIR 51-5FAA-2(...) M31 Periodic Maintenance Requirements
5. NAVAIR 51-5FAA-3 M31 Preoperational Checklist

SUPPORT REQUIREMENTS:

EQUIPMENT: Arresting gear, optical landing aids and associated equipment.

UNITS/PERSOENNEL: Qualified EAF personnel for: Section leader/recovery coordinator, plane director, (2) engine operators, cable runner, FLOLS operator, duty runway vehicle operator, and duty runway heavy equipment operator.

AOPS-EAF-4005: Conduct expedient Tactical Landing Zone (TLZ) site survey

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The EAF services platoon possesses the capability to conduct expedient tactical landing zone (TLZ) site surveys, selection, and marking. This capability is critical when conducting FOB operations forward of main operating bases. The TLZ provides flexibility through expandability by allowing the KC-130 to air land resupply and rapid ground refuel forward operating units and provides the ACE with the ability to project aviation power forward and sustain operations. The proper execution of a TLZ site survey provides the commander with critical information regarding the potential TLZ sites (i.e., surface load bearing capabilities, LZ dimensions, safety zone, and expandability). Although the MATC mobile team (MMT) of the MACG has the capability to conduct expedient TLZ site surveys and selection, only the MWSS possesses the equipment and training necessary within the MAW to
conduct soil suitability testing of potential TLZ sites. The MWSS maintains equipment that can determine the shearing strength of soils, asphalt surfaces and sub-grades, as well as soil analysis equipment, which can determine the gradation, compression, and content of the soil.

**CONDITION:** Provided a mission order, task organized personnel and equipment, and references.

**STANDARD:** To allow for critical planning of facilities and projects per the concept of operations and commander's intent.

**EVENT COMPONENTS:**
1. Review the mission.
2. Coordinate with supporting unit as required.
3. Conduct final coordination with supported unit (location, requirements, security, etc.) as required.
4. Move to site or area.
5. Gather critical information as required.
6. Make liaisons as required.
7. Develop draft plans and schematics as required.
8. Plan resources as required.
9. Submit required reports.

**REFERENCES:**
1. GTA 5-2-5 Engineer Reconnaissance
2. MCRP 3-17.7F Project Management
3. MCRP 3-17A Engineering Field Data
4. MCRP 3-17B Engineer Forms and Reports
5. MCWP 3-17 Engineering Operations
6. MCWP 3-17.4 Engineer Reconnaissance
7. MCWP 3-21.1 Aviation Ground Support

**SUPPORT REQUIREMENTS:**

**EQUIPMENT:** Engineer survey equipment, EAF survey equipment.

**UNITS/PERSO NNEL:** Engineer surveyor 1361, Expeditionary Airfields Officer 7002, Expeditionary Airfields Chief 7011.

**AOPS-EOD-4001:** Provide Support to Other Government Agencies in Support of the Homeland Defense Mission

**SUPPORTED MET(S):** MCT 4.6.3

**EVALUATION-CODED:** YES **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** The multi/Joint Service EOD Program provides EOD Teams to Very Important Persons Protection Agency (VIPPSA) in support of the President of the United States, Vice President, and other dignitaries as directed. Furthermore, many communities do not have organic civilian EOD units to respond to the threat of improvised explosive devices, and they rely on the closest military EOD unit for this function. Military EOD is required to
respond to all calls when an item is military ordnance as the military has the "cradle to grave" responsibility.

**CONDITION:** Given a requirement.

**STANDARD:** Ensuring all explosive components are mitigated.

**EVENT COMPONENTS:**
1. Ensure MOA's are in place with the local communities.
2. Coordinate with higher headquarters.
3. Provide the necessary support as requested.
4. Complete the required report.

**CHAINED EVENTS:**
AOPS-EOD-3001 AOPS-EOD-3002 AOPS-EOD-3003
AOPS-EOD-3004 AOPS-EOD-3005 AOPS-EOD-3006
AOPS-EOD-3007 AOPS-EOD-3008 AOPS-EOD-3009
AOPS-EOD-3010 AOPS-EOD-3011 EOD-ADMN-4001

**REFERENCES:**
1. AEODPS 60 Series Automated EOD Publication System
2. MCO 3571.2_ Explosive Ordnance Disposal (EOD) Program

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** In order to successfully perform this task, personnel must have advanced/evasive driving skills. Refer to CID: A16M9K3 Antiterrorism/Evasive driving course.

---

**AOPS-EOD-4002:** Conduct Emergency Decontamination Operations

**SUPPORTED MET(S):**
MCT 4.6.3 MCT 5.3.3.3 MCT 6.3.3

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

**CONDITION:** Given an environment, equipment, and personnel.

**STANDARD:** To eliminate the spread of contamination from personnel and equipment exposed.

**EVENT COMPONENTS:**
1. Assess situation/contamination.
2. Determine exclusion area/downwind hazard distance.
3. Establish Hotline.
4. Process personnel and equipment.

**CHAINED EVENTS:**
AOPS-EOD-3002 AOPS-EOD-3009 AOPS-EOD-3011
EOD-CBRN-4001

**REFERENCES:**
1. Applicable Marine Corps Orders and Directives
2. National Response Plan
3. AEODPS 60 Series Automated EOD Publication System
5. DODDIR 3150.8 DOD Response to Radiological Accidents

**SUPPORT REQUIREMENTS:**

**ORDNANCE:**

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>K765 Riot Control Agent, CS</td>
<td>12 per Section</td>
</tr>
</tbody>
</table>

**RANGE/TRAINING AREA:**

Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17963 MOUT Collective Training Facility (Large)

**OTHER SUPPORT REQUIREMENTS:** Viscous material to act as agents.

**AOPS-FUEL-4001:** Maintain bulk fuel distribution site

**SUPPORTED MET(S):**

MCT 4.6.3  MCT 5.3.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Employ tactical fuel systems, to include: SIXCON pump and tank module, MK970 semi-trailer tank (5K) and MK31 truck tractor (7 Ton), Helicopter Expedient Refueling System (HERS) and Tactical Airfield Fuel Dispensing System (TAFDS).

**CONDITION:** With a bulk petroleum distribution plan, bulk petroleum supply, distribution system, safety equipment and personnel.

**STANDARD:** To dispense fuel in order to meet mission requirements.

**EVENT COMPONENTS:**

1. Coordinate with supported unit.
2. Determine personnel, tools, and equipment requirement(s).
3. Survey proposed area and prepare site.
5. Place environmental control devices.
6. Place firefighting equipment.
7. Ensure quality control measures are in compliance.
8. Conduct bulk fuel operations.
9. Implement inventory control procedures.
10. Provide reports as required.

**CHAINED EVENTS:**

AOPS-FUEL-3001  AOPS-FUEL-3002

**RELATED EVENTS:**

REFERENCES:
1. FM 10-69 Petroleum Supply Point Equipment and Operations
2. MCWP 4-11 Tactical-Level Logistics
3. MCWP 4-11.6 Petroleum and Water Logistics Operations
4. MIL STD 3004 Quality Surveillance Handbook for Fuels, Lubricants and Related Products
5. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
7. TM 3835-01/1A Marine Corps Tactical Fuel Systems

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17933 POL Training Area

EQUIPMENT: Tactical Fuel System (TFS), Engineer earthmoving equipment, Material Handling Equipment, Utilities equipment, Bulk fuel equipment, Motor Transport equipment, Engineer lifting equipment, Tactical communications equipment and personal protective equipment (PPE).

MATERIAL: Plan for POL and HazMat.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Other personnel required: Corpsman and security personnel.

ENGR-CMOB-4001: Create an explosive obstacle

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Create an explosive obstacle to turn, block, fix, or disrupt enemy movement or maneuver of personnel or equipment.

CONDITION: Given a mission, commander's intent, location to emplace the obstacle, task organized personnel and equipment, and resources (Class IV and V supplies, etc.).

STANDARD: That is part of an obstacle group, intended to fix turn, block, or disrupt enemy personnel or equipment.

EVENT COMPONENTS:
1. Analyze obstacle plan.
2. Analyze engagement areas, battle positions, and weapons location.
3. Determine actual work sequence.
4. Finalize coordination with supported unit for specific obstacle placement and observation.
5. Coordinate overwatch/security for obstacle construction.
6. Move to obstacle site.
7. Emplace expedient anti-personnel devices, as required.
8. Account for all personnel and equipment prior to returning to friendly lines.
9. Coordinate lane closure plan with supported unit, as required.
10. Submit required reports.

CHAINED EVENTS:

RELATED EVENTS:

REFERENCES:

1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2D Explosive Hazard Operations
3. MCRP 3-17.7L Explosives and Demolitions
4. MCRP 3-17A Engineering Field Data
5. MCWP 3-17 Engineering Operations
6. MCWP 3-17.4 Engineer Reconnaissance
7. MCWP 3-17.5 Combined Arms Countermobility Operations
8. MCWP 3-17.8 Combined Arms Mobility Operations
9. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
10. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J007</td>
<td>Mine, Antipersonnel M18A 1 with Non-L495 Flare, Surface Trip M49 Series</td>
<td>2 mines per squad</td>
</tr>
<tr>
<td>L598</td>
<td>Simulator, Explosive Booby Trap Flas M49 Series</td>
<td>4 flares per squad</td>
</tr>
<tr>
<td>M032</td>
<td>Charge, Demolition Block TNT 1-Pound</td>
<td>10 charges per squad</td>
</tr>
<tr>
<td>M039</td>
<td>Charge, Demolition Cratering 40-Pound</td>
<td>1 charges per squad</td>
</tr>
<tr>
<td>M130</td>
<td>Cap, Blasting Electric M6</td>
<td>10 blasting caps per squad</td>
</tr>
<tr>
<td>M131</td>
<td>Cap, Blasting Non-Electric M7</td>
<td>20 blasting caps per squad</td>
</tr>
<tr>
<td>M420</td>
<td>Charge, Demolition Shaped M2 Series</td>
<td>1 charges per squad</td>
</tr>
<tr>
<td>M421</td>
<td>Charge, Demolition Shaped M3 Series</td>
<td>1 charges per squad</td>
</tr>
<tr>
<td>M456</td>
<td>Cord, Detonating PETN Type I Class E</td>
<td>1500 FT per squad</td>
</tr>
</tbody>
</table>
M591 Dynamite, Military M1  
10 charges per squad

M670 Fuse, Blasting Time M700  
500 FT per squad

M757 Charge, Assembly Demolition M183 Com  
2 charges per squad

ML03 Firing Device, Demolition Multi-Purp  
2 primers per squad

MN08 Igniter, Time Blasting Fuse with Sho  
35 igniters per squad

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces  
Facility Code 17730 Fire And Movement Range  
Facility Code 17830 Light Demolition Range

EQUIPMENT:  Combat engineer equipment, Material Handling Equipment.

UNITS/PERSOONNEL:  Range Safety Officer, Corpsman

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:  Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per squad. Final amounts should be adjusted to reflect sustainment intervals for this event.

ENGR-CMOB-4002:  Create a non-explosive obstacle/barriers

SUPPORTED MET(S):
MCT 5.3.3.3
MCT 6.1.1.3.4

EVALUATION-CODED:  YES  
SUSTAINMENT INTERVAL:  12 months

DESCRIPTION:  Create non-explosive obstacles/barriers to turn, block, fix, or disrupt enemy movement or maneuver of personnel or equipment.

CONDITION:  Given a mission, commanders intent, location to emplace the obstacle, task organized personnel and equipment, and resources (Class IV and V supplies, natural terrain, battlefield materials, etc.).

STANDARD:  That is part of an obstacle group that will turn, block, fix, or disrupts enemy personnel or equipment in accordance with the concept of operations and commander's intent.

EVENT COMPONENTS:
1. Analyze obstacle plan.
2. Analyze engagement areas, battle positions, and weapons location.
3. Determine actual work sequence.
4. Finalize coordination with supported unit for specific obstacle placement and observation.
5. Coordinate overwatch/security for obstacle construction.
6. Move to obstacle site.
7. Tie obstacles into natural/existing obstacles, as required.
8. Emplace mobility obstacles (barriers, hedgehogs, etc.), as required.
9. Emplace wire obstacles, as required.
10. Emplace field expedient obstacles (logs, abatis, rubble, etc.), as required.
11. Create craters, as required.
12. Emplace deceptive obstacles, as required.
13. Create tank ditches, as required.
14. Account for all personnel and equipment prior to returning to friendly lines.
15. Coordinate lane closure plan with supported unit, as required.
16. Submit required reports.

CHAINED EVENTS:
- ENGR-CMOB-3002
- ENGR-CMOB-3004
- ENGR-EQIP-3001
- ENGR-EQIP-3002
- ENGR-EQIP-3003
- ENGR-VERT-3001

RELATED EVENTS:
- 1302-CMOB-1001
- 1310-CMOB-1002
- 1310-HEOP-2001
- 1310-MANT-2002
- 1316-ADMN-1001
- 1316-ADMN-1002
- 1316-ADMN-2001
- 1316-ADMN-2002
- 1316-XENG-1001
- 1316-XENG-1002
- 1316-XENG-2002
- 1345-HEOP-1003
- 1345-HEOP-1004
- 1345-HEOP-2009
- 1345-HEOP-2006
- 1349-HEOP-2001
- 1349-HEOP-2002
- 1349-MANT-2002
- 1371-CMOB-1001
- 1371-CMOB-2001
- 1371-CMOB-2002
- 1371-CMOB-2003

REFERENCES:
1. MCRP 2-3A Intelligence Preparation of the Battlefield/Battlespace
2. MCRP 3-17A Engineering Field Data
3. MCWP 3-17 Engineering Operations
4. MCWP 3-17.4 Engineer Reconnaissance
5. MCWP 3-17.5 Combined Arms Countermobility Operations
6. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
7. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>L495 Flare, Surface Trip M49 Series</td>
<td>6 flares per squad</td>
</tr>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>12 charges per squad</td>
</tr>
<tr>
<td>M039 Charge, Demolition Cratering 40-Pound</td>
<td>12 charges per squad</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>12 blasting caps per squad</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>12 blasting caps per squad</td>
</tr>
<tr>
<td>M327 Coupling Base, Firing Device with Pr</td>
<td>12 primers per squad</td>
</tr>
<tr>
<td>M421 Charge, Demolition Shaped M3 Series</td>
<td>8 charges per squad</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>1000 FT per squad</td>
</tr>
<tr>
<td>M591 Dynamite, Military M1</td>
<td>10 charges per squad</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>500 FT per squad</td>
</tr>
<tr>
<td>M757 Charge, Assembly Demolition M183 Com</td>
<td>6 cases per squad</td>
</tr>
<tr>
<td>ML03 Firing Device, Demolition Multi-Purp</td>
<td>12 primers per squad</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>12 igniters per squad</td>
</tr>
<tr>
<td>MN14 Firing Device, Dual Mode MK54</td>
<td>12 detonators per squad</td>
</tr>
</tbody>
</table>
**RANGE/TRAINING AREA:**
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17830 Light Demolition Range
Facility Code 17931 Medium/Heavy Equipment Training Area

**EQUIPMENT:** Combat engineer equipment, Material Handling equipment, Earthmoving Equipment.

**UNITS/PERSOENNEL:** Range Safety Officer, Corpsman.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

---

**ENGR-CMOB-4003:** Employ demolitions in support of countermobility operations

**SUPPORTED MET(S):**
MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Employ demolitions in support of countermobility operations to create mobility obstacles (explosively) such as craters, ditches or to destroy structures (bridges, tunnels, etc.). This could include field expedient explosive obstacles (improvised anti-vehicular/anti-personnel explosive devices) to destroy enemy personnel and equipment.

**CONDITION:** Provided a mission order, task organized personnel and equipment, Class V, personal protective equipment (PPE), and references.

**STANDARD:** To construct countermobility obstacles at designated areas/routes to fix, turn, block, or disrupt enemy vehicles and personnel per commander's intent, concept of operations, and mission requirement.

**EVENT COMPONENTS:**
1. Review the mission.
2. Coordinate with supporting unit(s).
3. Conduct final coordination with supported unit (location, requirements, security, etc.), as required.
4. Prepare equipment and materials for operation.
5. Move to obstacle sites(s).
7. Prepare charges.
8. Place charges.
9. Create obstacle(s), as required.
10. Inspect obstacle(s), as required.
11. Improve obstacle site with support equipment, as required.
12. Reconstitute the force.
13. Submit required reports.

**CHAINED EVENTS:**

ENGR-CMOB-3001

ENGR-CMOB-3003

**RELATED EVENTS:**

1302-CMOB-1001 1302-CMOB-1002 1302-CMOB-1003
1302-DEMO-1001 1302-DEMO-1002 1310-ADMN-2002
1310-ADMN-2006 1310-ADMN-2009 1310-ADMN-2010
1310-HEOP-2001 1310-MANT-2002 1345-ADMN-1002
1345-ADMN-2002 1345-HEOP-1003 1345-HEOP-1004
1345-HEOP-1005 1345-HEOP-1006 1345-HEOP-2009

**REFERENCES:**

1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2D Explosive Hazard Operations
3. MCRP 3-17.7L Explosives and Demolitions
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 3-17.5 Combined Arms Countermobility Operations
7. MCWP 3-17.7 General Engineering

**SUPPORT REQUIREMENTS:**

**ORDNANCE:**

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M023 Charge, Demolition Block M112 1-1/4</td>
<td>20 charges per squad</td>
</tr>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>10 charges per squad</td>
</tr>
<tr>
<td>M039 Charge, Demolition Cratering 40-Pound</td>
<td>10 charges per squad</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>6 blasting caps per squad</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>6 blasting caps per squad</td>
</tr>
<tr>
<td>M420 Charge, Demolition Shaped M2 Series</td>
<td>5 charges per squad</td>
</tr>
<tr>
<td>M421 Charge, Demolition Shaped M3 Series</td>
<td>10 charges per squad</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>1000 FT per squad</td>
</tr>
<tr>
<td>M591 Dynamite, Military M1</td>
<td>10 charges per squad</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>500 FT per squad</td>
</tr>
<tr>
<td>ML03 Firing Device, Demolition Multi-Purp</td>
<td>6 primers per squad</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>6 igniters per squad</td>
</tr>
</tbody>
</table>

**RANGE/TRAINING AREA:**

Facility Code 17830 Light Demolition Range

**EQUIPMENT:** Engineer MHE, Combat engineer demolitions kit.

**UNITS/PERSOONNEL:** Range Safety Officer, Corpsman.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** Quantities of ammunition, explosives and
pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

**ENGR-EQIP-4001:** Conduct Material Handling Equipment (MHE) operations

**SUPPORTED MET(S):**
MCT 5.3.3.3
MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Provide Material Handling Equipment (MHE) support to enable handling of loads (equipment, supplies, materials, etc.) exceeding carrying capacity of personnel.

**CONDITION:** Given a mission, commander's intent, personnel and equipment, and references.

**STANDARD:** To provide support an IAW unit SOPs or guidance to support the concept of operations in accordance with commander's intent.

**EVENT COMPONENTS:**
1. Review tasking.
2. Coordinate with supported unit (location, requirements, security, ground guides, etc.).
3. Move to location.
4. Operate MHE, as required.
5. Load and unload materiel(s), as required.
6. Employ safety measures, as required.
7. Submit required reports.

**CHAINED EVENTS:**
ENGR-EQIP-3001  ENGR-EQIP-3002  ENGR-EQIP-3003

**RELATED EVENTS:**
1349-HORZ-2002  1349-HORZ-2003

**REFERENCES:**
1. MCRP 3-17B Engineer Forms and Reports
2. MCWP 3-41.1 Rear Area Operations
3. MCWP 4-11 Tactical-Level Logistics
4. MCWP 4-11.4 Maintenance Operations

**SUPPORT REQUIREMENTS:**

**EQUIPMENT:** Engineer MHE and Engineer support equipment, and Motor
Transport equipment.

**ENGR-HORZ-4001:** Conduct horizontal construction

**SUPPORTED MET(S):**
MCT 5.3.3.3
MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** The conduct of horizontal construction necessary to shape the terrain in order to meet the operational requirements of the MAGTF and includes MSR construction and/or maintenance; expeditionary airfields; site preparation for bed down facilities; and ordnance storage facilities.

**CONDITION:** Given a mission, commander's intent, tactical situation, a map, task organized equipment and personnel, design specifications, construction materials and references.

**STANDARD:** That meets or exceeds the requirements listed in the design specifications and the commander's intent.

**EVENT COMPONENTS:**
1. Review engineer reconnaissance and survey.
2. Review horizontal construction plans.
3. Coordinate support for horizontal construction.
4. Employ engineer equipment/kits.
5. Clear, grub, and strip site for construction.
6. Construct base course for road(s), as required.
7. Conduct soil stabilization, as required.
8. Conduct ditching for roads, as required.
9. Emplace road surface, as required.
10. Construct drainage structures, as required.
11. Construct tactical landing zones, as required.
12. Conduct dust abatement, as required.
13. Construct expedient Helicopter Landing Zone (HLZ), as required.
14. Construct expeditionary airfield, as required.
15. Construct high power run-up areas.
16. Submit required reports.

**PREREQUISITE EVENTS:**
1302-HORZ-1001   1302-HORZ-1002   ENGR-RECN-4001
ENGR-RECN-5001

**CHAINED EVENTS:**
ENGR-EQIP-3002   ENGR-EQIP-3003   ENGR-HORZ-3001
ENGR-MANT-3001   ENGR-VERT-3001

**RELATED EVENTS:**
1302-EOPS-1001   1302-EOPS-1003   1302-EOPS-1007
1302-EOPS-1009   1302-HORZ-1001   1302-HORZ-1002
REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. FM 3-21.75 The Warrior Ethos and Soldier Combat Skills
3. JP 3-15 Barriers, Obstacles, and Mine Warfare for Joint Operations
4. MCRP 2-3A Intelligence Preparation of the Battlefield/Battlespace
5. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
6. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
7. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
8. MCRP 3-17.7F Project Management
9. MCRP 3-17.7G Military Soils Engineering
10. MCRP 3-17.7I Earthmoving Operations
11. MCRP 3-17.7L Explosives and Demolitions
12. MCRP 3-17.7N Base Camps
13. MCRP 3-17A Engineering Field Data
14. MCRP 3-17B Engineer Forms and Reports
15. MCRP 4-11.1D Field Hygiene and Sanitation
16. MCWP 3-17 Engineering Operations
17. MCWP 3-17.4 Engineer Reconnaissance
18. MCWP 3-33 Military Operations Other Than War (MOOTW)
19. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
20. MCWP 3-41.1 Rear Area Operations
21. MCWP 4-11 Tactical-Level Logistics
22. NAVAIR 00-80T-115 Expeditionary Airfield NATOPS Manual
23. TM 5-232 Elements of Construction Surveying

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17918 Road/Airfield Construction Training Site

EQUIPMENT: Engineer Earthmoving equipment, Material Handling equipment, Combat engineer equipment, Utilities equipment
**ENGR-MANT-4001**: Maintain engineer equipment

**SUPPORTED MET(S):**
MCT 5.3.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 3 months

**DESCRIPTION:** The MWSS engineer company, maintenance platoon possesses an organic capability to conduct organizational maintenance and limited intermediate maintenance of assigned engineer equipment and organizational maintenance of engineer equipment for supported unit(s), except for the elements of the MACG.

**CONDITION:** With equipment, tools, repair parts, supplies, personnel and references.

**STANDARD:** To sustain equipment in an operational status at or above unit readiness requirements.

**EVENT COMPONENTS:**
1. Monitor equipment readiness.
2. Conduct internal reconciliation.
3. Induct equipment.
4. Assign tasks.
5. Maintain utilities equipment, as required.
6. Maintain bulk fuel equipment, as required.
7. Maintain Material Handling Equipment, as required.
8. Maintain earthmoving equipment, as required.
9. Maintain other organic tactical engineer equipment, as required.
10. Submit required reports.

**CHAINED EVENTS:**
ENGR-MANT-3001  ENGR-MANT-3002  ENGR-MANT-3003

**RELATED EVENTS:**
1169-ADMN-2006  1169-ADMN-2007  1169-ADMN-2012
1169-ADMN-2021  1169-ADMN-2022  1169-ADMN-2041
1169-ADMN-2051  1169-ADMN-2052  1169-ADMN-2061
1169-ADMN-2064  1169-ADMN-2071  1169-ADMN-2072
1169-ADMN-2073  1169-ADMN-2074  1169-ADMN-2075
1310-MANT-2002  1341-ADMN-1001  1341-ADMN-1002
1341-MANT-1001  1341-MANT-1002  1341-MANT-2010

**REFERENCES:**
1. EMC Electric Motor Controls by American Technical Publishers, Inc.
2. Applicable technical references
3. DoDI 6055.1 DoD Safety and Occupational Health (SOH) Program
4. MCBUL 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
5. MCO 3500.27_ Operational Risk Management (ORM)
6. MCO 4731.1A Oil Analysis Program for Ground Equipment
7. MCO 4733.1_ Marine Corps Test, Measurement, and Diagnostics Equipment (TMDE) Calibration and Maintenance Program (CAMP)
8. MCO 4790.18_ Corrosion Prevention and Control (CPAC) Program
9. MCO 4855.10_ Product Quality Deficiency Report (PQDR)
10. MCO 5100.29_ Marine Corps Safety Program
11. MCO P11262.2 Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment
12. MCO P4790.2_ MIMMS Field Procedures Manual
13. MCWP 4-11 Tactical-Level Logistics
14. MCWP 4-11.4 Maintenance Operations
15. SOP Standard Operating Procedures (SOP)
16. TM 4700-15/1_ Ground Equipment Record Procedures

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17420 Maneuver/Training Area, Heavy Forces

**EQUIPMENT:** Tool sets, chests, and kits.

---

**ENGRLY-OBUL-4001:** Conduct route improvement

**SUPPORTED MET(S):**
MCT 5.3.3.3
MCT 6.3.3

**EVALUATION-CODED:** YES **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Route improvement supports airfield/airbase operations, maintains the route and prevents/limits explosive hazard concealment opportunities for the enemy.

**CONDITION:** Given a permissive tactical situation, an operations order, commander's intent, a route to be improved, task organized personnel and equipment, engineer reconnaissance reports, and references.

**STANDARD:** To improve/maintain the route in support of airfield/airbase operations in accordance with the concept of operations and commander's intent.

**EVENT COMPONENTS:**
1. Analyze engineer reconnaissance report(s).
2. Coordinate with route clearance mission commander (for repair materials, logistics, security, etc.).
3. Confirm improvement requirements.
4. Move to improvement area.
5. Visually detect explosive and other hazards, as required.
6. Identify surface repairs, as required.
7. Operate engineer equipment, as required.
8. Remove obstructions (i.e., rubble/debris, vegetation, trash), as required.
9. Remove upheaval to required specifications.
10. Remove berms, as required.
11. Place additional fill/stabilization/reinforcement materials, as required.
12. Identify drainage structure repairs, as required.
13. Conduct culvert denial activities, as required.
14. Submit required reports.

**PREREQUISITE EVENTS:**

<table>
<thead>
<tr>
<th>Event Code</th>
<th>Description</th>
<th>Requirement Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1301-MOBL-1001</td>
<td>ENGR-RECN-3002</td>
<td>ENGR-RECN-3007</td>
</tr>
<tr>
<td>ENGR-RECN-5001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHAINED EVENTS:**

<table>
<thead>
<tr>
<th>Event Code</th>
<th>Description</th>
<th>Requirement Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-EQIP-3002</td>
<td>ENGR-EQIP-3003</td>
<td>ENGR-HORZ-3001</td>
</tr>
<tr>
<td>ENGR-RECN-3001</td>
<td>ENGR-VERT-3001</td>
<td></td>
</tr>
</tbody>
</table>

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>Event Code</th>
<th>Description</th>
<th>Requirement Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1302-MOBL-1002</td>
<td>1302-MOBL-1003</td>
<td>1302-MOBL-1004</td>
</tr>
<tr>
<td>1302-MOBL-1009</td>
<td>1302-MOBL-1010</td>
<td>1371-MOBL-2020</td>
</tr>
<tr>
<td>1371-MOBL-2021</td>
<td>1371-MOBL-2022</td>
<td>1371-MOBL-2023</td>
</tr>
</tbody>
</table>

**REFERENCES:**

1. GTA 5-2-5 Engineer Reconnaissance
2. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
3. MCRP 3-17.2D Explosive Hazard Operations
4. MCRP 3-17.7L Explosives and Demolitions
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 3-17.3 MAGTF Breaching Operations
8. MCWP 3-17.4 Engineer Reconnaissance
9. MCWP 3-17.8 Combined Arms Mobility Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17410 Maneuver/Training Area, Light Forces  
Facility Code 17918 Road/Airfield Construction Training Site

**EQUIPMENT:**
Combat engineer equipment, Engineer equipment.

**ENGR-MOBL-4002:**
Repair runway crater

**SUPPORTED MET(S):**
MCT 5.3.3.3  
MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** These repairs may be required due to enemy or friendly action/damage, lack of maintenance, poor construction techniques (for existing
surfaces), or environmental damage. This task may be part of Airfield Damage Repair (ADR), and Base Recovery after an Attack (BRAAT).

CONDITION: Given a tactical situation, an operations order, commander's intent, an airfield operating surface requiring repair, task organized personnel and equipment, damage assessment reports, and references.

STANDARD: To return the air field operating surface to a minimum operational capability within the design criteria and the commander's intent.

EVENT COMPONENTS:
1. Analyze engineer reconnaissance report(s).
2. Coordinate crater repair.
3. Confirm repair requirements.
4. Conduct Explosive Ordnance Disposal (EOD) operations, as required.
5. Operate engineer equipment, as required.
6. Operate motor transport equipment, as required.
7. Remove ejecta from operating surfaces.
8. Remove upheaval to required specifications.
9. Square hole, as required.
10. Place fill/stabilization/reinforcement materials, as required.
11. Compact fill material, as required.
12. Place geotextile layer(s), as required.
13. Surface repair with foreign object debris cover, as required.
15. Submit required reports.

PREREQUISITE EVENTS:
1302-EOPS-1004  ENGR-RECN-3002  ENGR-RECN-5001

CHAINED EVENTS:
AOPS-EOD-3004  ENGR-EQIP-3002  ENGR-EQIP-3003
ENGR-HORZ-3001  ENGR-RECN-3001  HQCO-OPS-4002

RELATED EVENTS:
1302-EOPS-1004  1302-EOPS-1007  1302-RECN-1001
1371-EOPS-2010  1371-EOPS-2011  1371-EOPS-2012

REFERENCES:
1. GTA 05-07-013 Rapid Field Classification Booklet
2. GTA 5-2-5 Engineer Reconnaissance
3. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
4. MCRP 3-17.2D Explosive Hazard Operations
5. MCRP 3-17.7L Explosives and Demolitions
6. MCWP 3-17.4 Engineer Reconnaissance
7. MCWP 3-17.8 Combined Arms Mobility Operations
8. MCWP 3-21.1 Aviation Ground Support

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17918 Road/Airfield Construction Training Site

**EQUIPMENT:** Engineer equipment, Combat engineer tools and kits, Combat engineer equipment, Motor transportation equipment

**ENGR-MOBL-4003:** Repair spall(s)

**SUPPORTED MET(S):**
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** These repairs may be required due to enemy or friendly action/damage, lack of maintenance, poor construction techniques (for existing surfaces), or environmental damage. ADR may be conducted as part of BRAAT. Damage classified as a spall does not reach the base course underneath the operating surface of an airfield or road.

**CONDITION:** Given a tactical situation, an operations order, commander's intent, an airfield operating surface requiring repair, task organized personnel and equipment, damage assessment reports, and references.

**STANDARD:** To return the airfield operating surface to a minimum operational capability within the design criteria and the commander's intent.

**EVENT COMPONENTS:**
1. Analyze engineer reconnaissance/damage assessment report(s).
2. Coordinate spall repair(s).
3. Confirm repair requirements.
4. Conduct EOD operations, as required.
5. Operate engineer equipment, as required.
6. Remove ejecta from operating surfaces.
7. Square hole, as required.
8. Fill damaged area with materials suitable for airfield operating surface.
9. Tamp repair, as required.
10. Screed, as required.
11. Reconstitute spall repair team.
12. Submit required reports.

**PREREQUISITE EVENTS:**
- 1302-EOPS-1004
- ENGR-RECN-5001
- HQCO-OPS-4001
- HQCO-OPS-4002

**CHAINED EVENTS:**
- AOPS-EOD-3004
- ENGR-EQIP-3002
- ENGR-EQIP-3003
- ENGR-HORZ-3001
- ENGR-RECN-3001
- HQCO-OPS-4001
- HQCO-OPS-4002

**RELATED EVENTS:**
- 1302-EOPS-1004
- 1302-EOPS-1007
- 1302-EOPS-1009
REFERENCES:
1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2D Explosive Hazard Operations
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
4. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
5. MCRP 3-17.7L Explosives and Demolitions
6. MCRP 3-17A Engineering Field Data
7. MCRP 3-17B Engineer Forms and Reports
8. MCWP 3-17.4 Engineer Reconnaissance
9. MCWP 3-17.8 Combined Arms Mobility Operations
10. MCWP 3-21.1 Aviation Ground Support

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17918 Road/Airfield Construction Training Site

EQUIPMENT: Engineer equipment, Motor transportation equipment, Combat engineer tools and kits, Combat engineer equipment.

ENGR-MOBL-4004: Conduct dismounted route sweep operations

SUPPORTED MET(S):
MCT 5.3.3.3
MCT 6.1.1.3.4
MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Conduct dismounted route sweep operations to detect, investigate, mark, report, and reduce Explosive Hazards (EH) and other obstacles along a defined route to enable assured mobility.

CONDITION: Given a mission, commander's intent, a permissive or semi-permissive environment, a route to be swept, task organized personnel and equipment, and references.

STANDARD: To ensure all explosive/non-explosive hazards are detected, identified, reduced, proofed, and/or marked to provide sufficient mobility to support the concept of operations and commander's intent integrating all available resources.

EVENT COMPONENTS:
1. Analyze search route intelligence.
2. Coordinate with supported unit for security, as required.
3. Coordinate with supporting units.
4. Move to search area.
5. Detect obstacles along route.
6. Alternate detector operators as required to prevent fatigue.
7. Identify explosive components of obstacle(s).
8. Mark obstacle(s) as required.
9. Coordinate explosive ordnance disposal activities, as required.
10. Reduce obstacle, as required.
11. Verify obstacle reduction.
12. Coordinate weapons intelligence team activities, as required.
13. Submit required reports.

**PREREQUISITE EVENTS:**
1302-MOBL-1002

**CHAINED EVENTS:**
AOPS-EOD-3003 AOPS-EOD-3004 AOPS-EOD-3006
AOPS-EOD-3008 ENGR-RECN-3002

**RELATED EVENTS:**
1371-MOBL-1002 1371-MOBL-2018 1371-MOBL-2019
1371-MOBL-2022 1371-MOBL-2023

**REFERENCES:**
1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2 Multiservice Procedures for Explosive Ordnance Disposal (NTTP) in a Joint Environment
3. MCRP 3-17.2D Explosive Hazard Operations
4. MCRP 3-17.7L Explosives and Demolitions
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 3-13.2 MINE WARFARE
8. MCWP 3-17 Engineering Operations
9. MCWP 3-17.4 Engineer Reconnaissance
10. MCWP 3-17.8 Combined Arms Mobility Operations

**SUPPORT REQUIREMENTS:**

**ORDNANCE:**

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>10 charges per squad</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>30 blasting caps per squad</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>2000 FT per squad</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>250 FT per squad</td>
</tr>
<tr>
<td>M757 Charge, Assembly Demolition M183 Com</td>
<td>2 cases per squad</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>25 igniters per squad</td>
</tr>
<tr>
<td>MN88 Cap, Blasting, 500 ft mini-tube M21</td>
<td>5 blasting caps per squad</td>
</tr>
<tr>
<td>MN90 Cap, Blasting, 1000 ft mini-tube M23</td>
<td>10 blasting caps per squad</td>
</tr>
</tbody>
</table>

**RANGE/TRAINING AREA:**
Facility Code 17830 Light Demolition Range

**EQUIPMENT:** Kevlar helmet, flak vest, Communications equipment, Mine
detectors, probe, compass, protractor, Hand Emplaced Mine Marking System (HEMMS) kit, sickle stick, DA FORM 1355-1-R.

**MATERIAL:** Engineer tape, concertina wire, barbed wire, engineer stakes, tie wire, mine signs, sandbags.

**UNITS/PERSOEONNEL:** Range Safety Officer, Corpsman.

**OTHER SUPPORT REQUIREMENTS:** ORM

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

**ENGR-MOBL-4005:** Employ demolitions in support of mobility operations

**SUPPORTED MET(S):**
MCT 6.1.1.3.4

**EVALUATION-CODED:** NO **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Employ demolitions in support of mobility operations to reduce/destroy obstacles (explosive and non-explosive) that present mobility impediments to operating forces on routes.

**CONDITION:** Provided a mission order, task organized personnel and equipment, Class V, personal protective equipment (PPE), and references.

**STANDARD:** To reduce mobility obstacles on designated routes and ensure mobility in accordance in the commander's intent, concept of operations and mission requirement.

**EVENT COMPONENTS:**
1. Review the mission.
2. Coordinate with supporting unit(s).
3. Conduct final coordination with supported unit (location, requirements, security, etc.), as required.
4. Prepare equipment and materials for operation.
5. Move to obstacle sites(s).
7. Prepare charges.
8. Place charges.
9. Reduce obstacle(s).
10. Proof obstacle(s).
11. Clear site with support equipment, as required.
12. Reconstitute obstacle clearing force.
13. Submit required reports.
PREREQUISITE EVENTS:
1302-DEMO-1001

CHAINED EVENTS:
AOPS-EOD-3003  AOPS-EOD-3004  AOPS-EOD-3006
AOPS-EOD-3008

RELATED EVENTS:
1371-MOBL-2020  1371-MOBL-2023

REFERENCES:
1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2D Explosive Hazard Operations
3. MCRP 3-17.7L Explosives and Demolitions
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 3-17 Engineering Operations
7. MCWP 3-17.5 Combined Arms Countermobility Operations

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M023 Charge, Demolition Block M12 1-1/4</td>
<td>30 charges per squad</td>
</tr>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>30 charges per squad</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>10 blasting caps per squad</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>20 blasting caps per squad</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>2000 FT per squad</td>
</tr>
<tr>
<td>M591 Dynamite, Military M1</td>
<td>20 charges per squad</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>1000 FT per squad</td>
</tr>
<tr>
<td>ML03 Firing Device, Demolition Multi-Purp</td>
<td>10 primers per squad</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>30 igniters per squad</td>
</tr>
<tr>
<td>MN52 MK154 Mod 0</td>
<td>20 detonators per squad</td>
</tr>
</tbody>
</table>

RANGE/TRAINING AREA:
Facility Code 17830 Light Demolition Range

EQUIPMENT: Engineer Material Handling equipment, Combat engineer demolitions kit.

UNITS/PERSONNEL: Range Safety Officer Corpsman.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per squad. Final amounts should be adjusted to reflect sustainment intervals for this event. In addition, mission and situation will dictate which breaching charge will be used.

ENGR-RECN-4001: Conduct site survey
SUPPORTED MET(S):
MCT 5.3.3.3
MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Conduct site survey to reconnoiter a site or area as part of survey, liaison and reconnaissance party to allow critical planning of specific construction and or operations in support of the MAGTF.

CONDITION: Provided a mission order, task organized personnel and equipment, and references.

STANDARD: To allow for critical planning of facilities and projects per the concept of operations and commander’s intent.

EVENT COMPONENTS:
1. Review the mission.
2. Coordinate with supporting unit, as required.
3. Conduct final coordination with supported unit (location, requirements, security, etc.), as required.
4. Move to site or area.
5. Gather critical information, as required.
6. Make liaisons, as required.
7. Develop draft plans and schematics, as required.
8. Plan resources as required.
9. Submit required reports.

CHAINED EVENTS:
ENGR-RECN-3003

RELATED EVENTS:
1302-HORZ-1001  1302-PLAN-1002  1302-VERT-1001
1361-SRZY-1001  1361-SRZY-1002  1361-SRZY-1003
1361-SRZY-1004  1361-SRZY-1005  1361-SRZY-1006
1361-SRZY-1007  1361-SRZY-1008  1361-SRZY-1009
1361-SRZY-1010  1361-SRZY-1011  1361-SRZY-1012
1371-PLAN-2002

REFERENCES:
1. GTA 5-2-5 Engineer Reconnaissance
2. MCRP 3-17.7F Project Management
3. MCRP 3-17A Engineering Field Data
4. MCRP 3-17B Engineer Forms and Reports
5. MCWP 3-17 Engineering Operations
6. MCWP 3-17.4 Engineer Reconnaissance

SUPPORT REQUIREMENTS:

EQUIPMENT: Engineer survey equipment

UNITS/PERS: Engineer surveyor 1361
ENGR-RECN-4002: Conduct zone reconnaissance

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.1.1.3.4

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Conduct zone reconnaissance to reconnoiter a delineated area to compile pertinent information and to clarify the threat situation, gather obstacle/terrain intelligence, zone infrastructure.

CONDITION: Given a mission, commander's intent, task organized personnel and equipment, and references.

STANDARD: To gather all relevant engineer data, and produce an engineer estimate (or designated products or guidance) in accordance with unit SOPs, the concept of operations and the commander's intent.

EVENT COMPONENTS:
1. Review mission.
2. Coordinate support requirements and location(s).
3. Conduct final coordination with supported unit (location, requirements, security, etc.).
4. Conduct final coordination with supporting units (logistics, etc.).
5. Conduct final rehearsals and immediate action drills, as required.
6. Reconnoiter for enemy threat, as required.
7. Reconnoiter routes, as required.
8. Reconnoiter infrastructures, as required.
9. Reconnoiter for obstacles, as required.
10. Submit required reports.

CHAINED EVENTS:
ENGR-RECN-3001  ENGR-RECN-3002  ENGR-RECN-3004
ENGR-RECN-3005  ENGR-RECN-3006  ENGR-RECN-3007

RELATED EVENTS:
1302-RECN-1001  1371-RECN-1001  1371-RECN-2001

REFERENCES:
1. GTA 05-07-013 Rapid Field Classification Booklet
2. GTA 5-2-5 Engineer Reconnaissance
3. GTA 5-7-13 Bridge Classification Booklet
4. MCRP 3-17.1B Military Non-Standard Fixed Bridging
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
8. MCWP 3-17 Engineering Operations
9. MCWP 3-17.4 Engineer Reconnaissance
10. MCWP 3-17.5 Combined Arms Countermobility Operations
11. MCWP 3-17.8 Combined Arms Mobility Operations

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light
ENGR-RECN-4003: Conduct route reconnaissance

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Conduct route reconnaissance to reconnoiter specific routes to compile pertinent information and to clarify the threat situation, gather obstacle/terrain intelligence, infrastructure.

CONDITION: Given a mission, commander's intent, task organization of personnel and equipment, and references.

STANDARD: To gather all relevant engineer data, and produce an engineer estimate (or designated products or guidance) in accordance with unit SOPs, the concept of operations and the commander's intent.

EVENT COMPONENTS:
1. Review mission.
2. Issue the order.
3. Coordinate support requirements.
4. Conduct final coordination with supported unit (location, requirements and security).
5. Conduct final coordination with supporting units, as required.
6. Conduct final rehearsals and immediate action drills, as required.
7. Reconnoiter roads/routes, as required.
8. Reconnoiter tunnels, as required.
9. Reconnoiter bridges, as required.
10. Reconnoiter for fords/ferries, as required.
11. Reconnoiter for landing zones, as required.
12. Submit required reports.

CHAINED EVENTS:
ENGR-RECN-3006 ENGR-RECN-3007

RELATED EVENTS:
1302-RECN-1001 1371-RECN-1001 1371-RECN-2001

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. GTA 05-07-013 Rapid Field Classification Booklet
3. GTA 5-2-5 Engineer Reconnaissance
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 3-17 Engineering Operations
7. MCWP 3-17.4 Engineer Reconnaissance
8. MCWP 3-17.5 Combined Arms Countermobility Operations

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Combat engineer equipment.

ENGR-RECN-4004: Conduct area reconnaissance

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Conduct area reconnaissance to reconnoiter an area to compile pertinent information and to clarify the threat situation, gather obstacle/terrain intelligence, area infrastructure in established lateral boundaries.

CONDITION: Given a mission, commander's intent, task organized personnel and equipment, and references.

STANDARD: To gather all relevant data, and produce an engineer estimate (or designated products or guidance) in accordance with unit SOPs, the concept of operations and the commander's intent.

EVENT COMPONENTS:
1. Review mission.
2. Issue the order.
3. Coordinate support requirements.
4. Conduct final coordination with supported unit (location, requirements, security, etc.).
5. Conduct final coordination with supporting units, as required.
6. Conduct final rehearsals and immediate action drills, as required.
7. Reconnoiter roads/routes to specified area, as required.
8. Reconnoiter infrastructure/facilities in specified area, as required.
9. Reconnoiter obstacles in specified area, as required.
10. Reconnoiter structures in specified area, as required.
11. Submit required reports.

CHAINED EVENTS:
ENGR-RECN-3002 ENGR-RECN-3005 ENGR-RECN-3006
ENGR-RECN-3007

RELATED EVENTS:
1302-RECN-1001 1371-RECN-1001 1371-RECN-2001

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. GTA 5-2-5 Engineer Reconnaissance
3. GTA 5-7-13 Bridge Classification Booklet
4. MCRP 3-17.1B Military Non-Standard Fixed Bridging
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
8. MCWP 3-17 Engineering Operations
9. MCWP 3-17.4 Engineer Reconnaissance
10. MCWP 3-17.5 Combined Arms Countermobility Operations
11. MCWP 3-17.8 Combined Arms Mobility Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17420 Maneuver/Training Area, Heavy Forces

**EQUIPMENT:** Combat engineer equipment.

**ENGR-SURV-4001:** Harden existing structure

**SUPPORTED MET(S):** MCT 6.1.1.3.4

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

**DESCRIPTION:** Harden existing structure in order to reduce the vulnerability of personnel, equipment, weapons, and supplies to enemy fire and as a means to enhance force protection.

**CONDITION:** Provided a mission, in an urban environment, commander's intent, reconnaissance reports, and survivability plan, a task organization of personnel and equipment, and references.

**STANDARD:** To meet the mission requirements in accordance with the concept of operations and commander's intent.

**EVENT COMPONENTS:**
1. Review mission.
2. Review engineer reconnaissance and survey reports.
3. Coordinate with supported unit for specific position requirements.
4. Coordinate resources for project.
5. Conduct site preparation.
6. Construct perimeter security obstacles, as required.
7. Shore walls/floors/roofs, as required.
8. Remove/reinforce windows, as required.
9. Compartmentalize interior of structure, as required.
10. Emplace prefabricated barrier(s), as required.
11. Construct earth filled barrier/structure(s), as required.
12. Conduct earthmoving operations, as required.
13. Construct overhead cover, as required.
14. Construct shelter/bunker, as required.
15. Construct triggering screen, as required.
16. Provide tactical power, as required.
17. Submit required reports.

**PREREQUISITE EVENTS:**
1302-SURV-1005  ENGR-RECN-4001  ENGR-RECN-5001
CHAINED EVENTS:
ENGR-CMOB-3001  ENGR-CMOB-3003  ENGR-CMOB-3004
ENGR-EQIP-3001  ENGR-EQIP-3002  ENGR-EQIP-3003
ENGR-RECN-3003  ENGR-SURV-3001  ENGR-SURV-3002
ENGR-SURV-3003  ENGR-SURV-3004  ENGR-SURV-3005
ENGR-SURV-3006  ENGR-SURV-3007  ENGR-UTIL-3001
ENGR-UTIL-3002  ENGR-UTIL-3003  ENGR-UTIL-3004

RELATED EVENTS:
1302-EOPS-1001  1302-EOPS-1002  1302-EOPS-1003
1302-EOPS-1009  1302-RECN-1001  1302-SURV-1001
1371-EOPS-2007  1371-EOPS-2010  1371-EOPS-2011
1371-EOPS-2012  1371-HORZ-2004  1371-HORZ-2005
1371-RECN-1001  1371-RECN-2001  1371-SURV-1001
1371-SURV-2001  1371-SURV-2002  1371-VERT-1001
1371-VERT-1002  1371-VERT-1003  1371-VERT-1004
1371-VERT-1005  1371-VERT-2001  1371-VERT-2002

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. FM 5-553 General Drafting
3. JP 3-15 Barriers, Obstacles, and Mine Warfare for Joint Operations
4. MCRP 3-17.1B Military Non-Standard Fixed Bridging
5. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
6. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
7. MCRP 3-17.7C Carpentry
8. MCRP 3-17.7D Concrete and Masonry
9. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
10. MCRP 3-17.7F Project Management
11. MCRP 3-17.7J Earthmoving Operations
12. MCRP 3-17.7L Explosives and Demolitions
13. MCRP 3-17A Engineering Field Data
14. MCRP 3-17B Engineer Forms and Reports
15. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
16. MCWP 3-13.2 MINE WARFARE
17. MCWP 3-17 Engineering Operations
18. MCWP 3-17.4 Engineer Reconnaissance
19. MCWP 3-17.5 Combined Arms Countermobility Operations
20. MCWP 3-17.6 Survivability
21. MCWP 3-17.8 Combined Arms Mobility Operations
22. MCWP 4-11 Tactical-Level Logistics
23. MCWP 5-1 Marine Corps Planning Process (MCPP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17420 Maneuver/Training Area, Heavy Forces

EQUIPMENT: Engineer material handling equipment, engineer earthmoving
equipment, combat engineer tools and kits, utilities equipment.

ENGR-SURV-4002: Construct field fortifications

SUPPORTED MET(S):
MCT 5.3.3.3    MCT 6.1.1.3.4

EVALUATION-CODED: NO    SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Construct field fortifications that reduce the vulnerability of personnel, equipment, weapons, and supplies to enemy fire, increase effectiveness of friendly weapons, and as a means to enhance force protection.

CONDITION: Provided a mission, commanders intent, reconnaissance reports, a task organization of personnel and equipment, and references.

STANDARD: To meet mission requirements in accordance with the concept of operations and commander's intent.

EVENT COMPONENTS:
1. Review mission.
2. Review engineer reconnaissance and survey.
3. Coordinate with supported unit for specific position placement and requirements.
4. Construct survivability positions, as required.
5. Construct wire obstacles, as required.
6. Construct field expedient obstacles, as required.
7. Construct/emplace barrier(s), as required.
8. Construct/emplace explosive obstacle(s), as required.
9. Conduct vertical construction, as required.
10. Harden existing structures, as required.
11. Conduct earthmoving operations, as required.
12. Provide tactical power, as required.
13. Submit required reports.

PREREQUISITE EVENTS:
1302-CMOB-1001    1302-SURV-1005    ENGR-RECN-4001
ENGR-RECN-5001

CHAINED EVENTS:
ENGR-CMOB-3002    ENGR-CMOB-3003    ENGR-CMOB-3004
ENGR-EQIP-3002    ENGR-EQIP-3003    ENGR-SURV-3001
ENGR-SURV-3003    ENGR-SURV-3004    ENGR-SURV-3006
ENGR-UTIL-3001    ENGR-UTIL-3003    ENGR-UTIL-3004

RELATED EVENTS:
1302-CMOB-1001    1302-EOPS-1001    1302-EOPS-1002
1302-EOPS-1003    1302-EOPS-1009    1302-RECN-1001
1302-SURV-1001    1302-SURV-1002    1302-SURV-1003
1310-HORZ-2003    1345-HEOP-1003    1345-HEOP-1004
1345-HEOP-1005    1345-HEOP-1006    1349-HEOP-2001
ENCLOSURE (1)

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17.7C Carpentry
3. MCRP 3-17.7D Concrete and Masonry
4. MCRP 3-17.7I Earthmoving Operations
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 3-17 Engineering Operations
8. MCWP 3-17.4 Engineer Reconnaissance
9. MCWP 3-17.5 Combined Arms Countermobility Operations
10. MCWP 3-17.6 Survivability
11. MCWP 3-33 Military Operations Other Than War (MOOTW)
12. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
13. MCWP 3-41.1 Rear Area Operations
14. MCWP 4-11 Tactical-Level Logistics

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17420 Maneuver/Training Area, Heavy Forces

EQUIPMENT: Engineer earthmoving equipment, Engineer Material Handling Equipment, Combat engineer tools and equipment, Utilities equipment.

MATERIAL: Map, Compass, Protractor, Overlay sheets, Reconnaissance reports.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: ORM

ENGR-SURV-4003: Construct Vehicle Control Point (VCP)

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Construct Vehicle Control Point (VCP) to control, restrict and monitor movement of personnel and equipment and to gain information/data on suspected vehicles during military operations.
CONDITION: Provided a mission, commander's intent, intelligence reports, task organization of personnel and equipment, Class IV supplies, and references.

STANDARD: To gain information and maintain control of vehicles, pedestrians, and materials in accordance with mission requirements and commander's intent.

EVENT COMPONENTS:
1. Review mission.
2. Review intelligence reports.
3. Coordinate with supported unit for specific position requirements.
4. Coordinate resources for project.
5. Coordinate security, as required.
7. Construct survivability positions, as required.
8. Emplace prefabricated barrier(s), as required.
9. Construct wire obstacles, as required.
10. Construct expedient obstacles, as required.
11. Construct earth filled barrier/structure(s), as required.
12. Conduct earthmoving operations, as required.
13. Establish vehicle waiting area, as required.
14. Conduct search lanes, as required.
15. Construct personnel search area(s), as required.
16. Construct/emplace signs, as required.
17. Provide tactical power, as required.
18. Submit required reports.

PREREQUISITE EVENTS:
1302-CMOB-1001  1302-SURV-1005

CHAINED EVENTS:
ENGR-CMOB-3003  ENGR-CMOB-3004  ENGR-EQIP-3002
ENGR-EQIP-3003  ENGR-RECN-3003  ENGR-SURV-3001
ENGR-SURV-3002  ENGR-SURV-3003  ENGR-SURV-3004
ENGR-SURV-3005  ENGR-SURV-3006  ENGR-SURV-3007
ENGR-UTIL-3001  ENGR-UTIL-3002  ENGR-UTIL-3003
ENGR-UTIL-3004

RELATED EVENTS:
1302-CMOB-1003  1302-EOPS-1001  1302-EOPS-1002
1302-EOPS-1003  1302-EOPS-1009  1302-RECN-1001
1302-SURV-1001  1302-SURV-1002  1302-SURV-1003
1310-HORZ-2003  1345-HEOP-1003  1345-HEOP-1004
1345-HEOP-1005  1345-HEOP-1006  1349-HEOP-2001
1349-HORZ-2001  1349-HORZ-2002  1371-CMOB-1001
1371-CMOB-1002  1371-CMOB-1003  1371-CMOB-2001
1371-EOPS-1001  1371-EOPS-2005  1371-EOPS-2006
1371-EOPS-2010  1371-EOPS-2011  1371-EOPS-2012
1371-HORZ-1001  1371-HORZ-1002  1371-HORZ-1003
1371-HORZ-2004  1371-HORZ-2005  1371-SURV-1001
1371-VERT-1001  1371-VERT-1002  1371-VERT-1003
1371-VERT-1004  1371-VERT-1005
REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17.7C Carpentry
3. MCRP 3-17A Engineering Field Data
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.4 Engineer Reconnaissance
6. MCWP 3-17.5 Combined Arms Countermobility Operations
7. MCWP 3-17.6 Survivability
8. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
9. MCWP 3-41.1 Rear Area Operations
10. MCWP 4-11 Tactical-Level Logistics

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer Material Handling Equipment, engineer earthmoving equipment, combat engineer tools, kits and utilities equipment.

MATERIAL: Map, Compass, Protractor, Overlay sheets, Reconnaissance reports, Class IV supplies.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: ORM

ENGR-SURV-4004: Construct Entry Access Point (EAP)

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Construct Entry Access Point to prevent unauthorized personnel into military facilities.

CONDITION: Provided a mission, commanders intent, intelligence reports, task organization of personnel and equipment, Class IV supplies, and references.

STANDARD: To control and monitor access of vehicles, pedestrians, and materials onto military facilities in accordance with the concept of operations and commander's intent.

EVENT COMPONENTS:
1. Review mission.
2. Review force protection requirements.
3. Coordinate resources for project.
4. Coordinate security as required.
5. Conduct site preparation and layout.
6. Construct survivability positions, as required.
7. Emplace prefabricated barrier(s), as required.
8. Construct wire obstacles, as required.
9. Construct expedient obstacles, as required.
10. Construct earth filled barrier/structure(s), as required.
11. Conduct earthmoving operations, as required.
12. Establish vehicle turn-around area, as required.
13. Establish pedestrian lanes, as required.
14. Construct personnel search area(s), as required.
15. Construct/emplace signs, as required.
16. Provide tactical power, as required.
17. Submit required reports.

CHAINED EVENTS:

ENGR-CMOB-3002     ENGR-CMOB-3002     ENGR-CMOB-3004
ENGR-CMOB-3004     ENGR-EQIP-3002     ENGR-EQIP-3003
ENGR-RECN-3001     ENGR-SURV-3001     ENGR-SURV-3002
ENGR-SURV-3003     ENGR-SURV-3004     ENGR-SURV-3005
ENGR-UTIL-3001     ENGR-UTIL-3003     ENGR-UTIL-3004
HQCO-ABGD-4001     HQCO-ABGD-4004

RELATED EVENTS:

1302-CMOB-1001     1302-CMOB-1003     1302-EOPS-1007
1302-EOPS-1009     1302-SURV-1001     1302-SURV-1002
1310-HORZ-2002     1310-HORZ-2003     1345-HEOP-1003
1345-HEOP-1004     1345-HEOP-1005     1345-HEOP-1006
1371-CMOB-1001     1371-CMOB-1002     1371-CMOB-1003
1371-EOPS-2010     1371-EOPS-2011     1371-EOPS-2012
1371-SURV-1001     1371-SURV-2001     1371-VERT-1001
1371-VERT-1002     1371-VERT-1004

REFERENCES:
1. FM 3-21.75 The Warrior Ethos and Soldier Combat Skills
2. MCRP 3-17.7L Explosives and Demolitions
3. MCRP 3-17A Engineering Field Data
4. MCRP 3-17B Engineer Forms and Reports
5. MCWP 3-17 Engineering Operations
6. MCWP 3-17.5 Combined Arms Countermobility Operations
7. MCWP 3-17.6 Survivability
8. MCWP 3-33 Military Operations Other Than War (MOOTW)
9. MCWP 3-41.1 Rear Area Operations
10. MCWP 4-11 Tactical-Level Logistics

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer Material Handling Equipment, Engineer Earthmoving equipment, Combat Engineer tools & kits.

MATERIAL: Map, Compass, Protractor, Overlay sheets, reconnaissance
reports, Class IV supplies.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: ORM

ENGR-SURV-4005: Construct earth filled barrier/structure

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.1.1.3.4

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Construct earth filled barrier/structure in support of survivability of the force.

CONDITION: Provided a mission, commander's intent, reconnaissance reports, a task organization of personnel and equipment, and references.

STANDARD: That supports the mission requirements and concept of operations in accordance with the commander's intent.

EVENT COMPONENTS:
1. Review mission.
2. Review engineer reconnaissance and survey.
3. Coordinate with supported unit for specific placement and requirements.
4. Construct/emplace barrier(s), as required.
5. Conduct earthmoving operations, as required.
6. Submit required reports.

PREREQUISITE EVENTS:
1302-CMOB-1001  1302-SURV-1004  1302-SURV-1005

CHAINED EVENTS:
ENGR-CMOB-3004  ENGR-EQIP-3002  ENGR-EQIP-3003
ENGR-EQIP-3003  ENGR-RECN-3003

RELATED EVENTS:
1302-RECN-1001  1302-SURV-1001  1302-SURV-1002
1345-HEOP-1003  1345-HEOP-1004  1345-HEOP-1005
1345-HEOP-1006  1349-HEOP-2001  1371-RECN-1001

REFERENCES:
1. MCRP 3-17.7I Earthmoving Operations
2. MCRP 3-17A Engineering Field Data
3. MCWP 3-17 Engineering Operations
4. MCWP 3-17.4 Engineer Reconnaissance
5. MCWP 3-17.6 Survivability
6. MCWP 3-33 Military Operations Other Than War (MOOTW)
7. MCWP 4-11 Tactical-Level Logistics
SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer earthmoving equipment.

ENGR-SURV-4006: Employ demolitions in support of survivability operations

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Employ demolitions in support of survivability operations to support the defense of friendly positions or clearance of natural/man-made obstacles for fields of fire to eliminate enemy cover and concealment.

CONDITION: Provided a mission order, task organized personnel and equipment, Class V supplies, personal protective equipment (PPE), and references.

STANDARD: To enhance friendly survivability positions and fields of fire to defeat the enemy per the commander's intent and concept of operations.

EVENT COMPONENTS:
1. Review the mission.
2. Coordinate with supporting unit(s).
3. Conduct final coordination with supported unit (location, requirements, security, etc.), as required.
4. Prepare personnel for mission requirements, as required.
5. Construct explosive devices, as required.
6. Clear fields of fire, as required.
7. Place expedient explosive devices to support positions, as required.
8. Mark fortifications/explosive devices, as required.
9. Reconstitute force, as required.
10. Submit required reports.

PREREQUISITE EVENTS:
1302-DEMO-1001 1302-SURV-1002

CHAINED EVENTS:
ENGR-CMOB-3001 ENGR-CMOB-3002 ENGR-CMOB-3003
ENGR-EQIP-3002 ENGR-EQIP-3003 ENGR-RECN-3003

RELATED EVENTS:
1302-DEMO-1002 1302-SURV-1001 1302-SURV-1003
1302-SURV-1005 1371-CMOB-2003 1371-DEMO-1001
1371-DEMO-2002 1371-EOPS-1002 1371-EOPS-1003
1371-EOPS-1004 1371-SURV-1001 1371-SURV-2001
1371-SURV-2002

REFERENCES: 
1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2D Explosive Hazard Operations
3. MCRP 3-17.7L Explosives and Demolitions
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 3-17 Engineering Operations
7. MCWP 3-17.5 Combined Arms Countermobility Operations
8. MCWP 3-17.6 Survivability Operations

SUPPORT REQUIREMENTS:

**ORDNANCE:**

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M023 Charge, Demolition Block M112 1-1/4</td>
<td>20 charges per squad</td>
</tr>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>20 charges per squad</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>10 blasting caps per squad</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>20 blasting caps per squad</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>2000 FT per squad</td>
</tr>
<tr>
<td>M591 Dynamite, Military M1</td>
<td>20 charges per squad</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>500 FT per squad</td>
</tr>
<tr>
<td>ML03 Firing Device, Demolition Multi-Purp</td>
<td>10 primers per squad</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>20 igniters per squad</td>
</tr>
<tr>
<td>MN52 MK154 Mod 0</td>
<td>10 detonators per squad</td>
</tr>
</tbody>
</table>

**RANGE/TRAINING AREA:** Facility Code 17830 Light Demolition Range

**EQUIPMENT:** Engineer Material Handling Equipment, Combat engineer demolitions kit.

**UNITS/PERSONNEL:** Range Safety Officer, Corpsman.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

**DESCRIPTION:** Construct vehicle survivability position/revetment to increase vehicle survivability.

**CONDITION:** Given an operations order, personnel, engineer equipment, and materials.

**STANDARD:** To build vehicle survivability position(s) (Revetment) that meet or
exceed the mission requirement and supports the concept of operation in accordance with the commander's intent.

**EVENT COMPONENTS:**
1. Coordinate with supported unit.
2. Design position required.
3. Determine material required.
4. Calculate time required for construction.
5. Prepare equipment for operation.
6. Move to site.
7. Establish safety zone.
8. Construct revetment, as required.
9. Displace equipment, as required.
10. Submit required reports.

**PREREQUISITE EVENTS:**

**CHAINED EVENTS:**

**RELATED EVENTS:**

**REFERENCES:**
1. JP 3-34 Engineer Doctrine for Joint Operations
2. FM 3-21.75 The Warrior Ethos and Soldier Combat Skills
3. GTA 05-08-001 Survivability Positions
4. MCRP 3-17.7C Carpentry
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-41.1A MAGTF Rear Area Security
7. MCWP 3-17 Engineering Operations
8. MCWP 3-17.5 Combined Arms Countermobility Operations
9. MCWP 3-17.6 Survivability
10. MCWP 3-17.7 General Engineering
11. MCWP 3-33 Military Operations Other Than War (MOOTW)
12. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
13. MCWP 3-41.1 Rear Area Operations
14. MCWP 4-11 Tactical-Level Logistics

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces
EQUIPMENT: Engineer equipment.

MATERIAL: Map, Compass, Protractor, Overlay sheets, Reconnaissance reports, Class IV materials, as required.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: ORM

ENGR-UTIL-4001: Provide tactical electrical power

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Plan and coordinate power generation/electrical distribution in accordance with the unit's mission statement.

CONDITION: With a utilities plan, required equipment and personnel.

STANDARD: In accordance with the operational order and commander's intent.

EVENT COMPONENTS:
1. Plan tactical power requirements.
2. Coordinate logistical support/requirements.
3. Establish generator site(s).
4. Establish power distribution.
5. Maintain utilities equipment, as required.
6. Submit required reports.

PREREQUISITE EVENTS:
1120-XENG-2501 1120-XENG-2521 1169-XENG-2501
1169-XENG-2521 1169-XENG-2561

CHAINED EVENTS:
ENGR-MANT-3001 ENGR-MANT-3002 ENGR-UTIL-3001
ENGR-UTIL-3002 ENGR-UTIL-3003 ENGR-UTIL-3004
ENGR-UTIL-3005 ENGR-UTIL-3006

RELATED EVENTS:
1169-ADMN-2002 1169-ADMN-2003 1169-ADMN-2021
1169-ADMN-2022 1169-XENG-2502 1169-XENG-2522
1169-XENG-2621 1169-XENG-2622 1169-XENG-2721
1169-XENG-2821 1169-XENG-2965 1169-XENG-2966

REFERENCES:
1. FM 5-424 Theater of Operations Electrical Systems
2. TM 12359A-0D Principal Technical Characteristics of Expeditionary Power Systems Equipment
3. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety

3-120 Enclosure (1)
SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Utilities equipment, engineer Material Handling Equipment (MHE), Motor Transport equipment.

MATERIAL: POLs, HazMat Kits, spill containment kits, fuel.

ENGR-UTIL-4002: Provide potable water

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Produce, store, and distribute potable water in order to meet mission requirements.

CONDITION: With a utilities plan, required equipment and personnel.

STANDARD: To meet planning requirements.

EVENT COMPONENTS:
2. Establish Water Point.
3. Produce Potable Water.
5. Establish Water Distribution Points.

PREREQUISITE EVENTS:
1120-XENG-2501 1120-XENG-2553 1169-XENG-2501
1169-XENG-2561

CHAINED EVENTS:
ENGR-UTIL-3007 ENGR-UTIL-3008 ENGR-UTIL-3009

RELATED EVENTS:
1169-ADMN-2007 1169-ADMN-2021 1169-ADMN-2022
1169-ADMN-2051 1169-ADMN-2052 1169-ADMN-2075
1169-ADMN-2091 1169-XENG-2502 1169-XENG-2653
1169-XENG-2752 1169-XENG-2753 1169-XENG-2853

REFERENCES:
1. Appropriate Technical Manuals
2. FM 10-52 Water Supply in Theaters of Operation
3. FM 10-52-1 Water Supply Point Equipment and Operations
4. JP 4-03 Joint Bulk Petroleum and Water Doctrine
5. MCWP 4-11.6 Petroleum and Water Logistics Operations
6. TB MED 577 Occupational and Environmental Health Sanitary Control and Surveillance of Field Water Supplies
SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17924 Water Supply Training Area

EQUIPMENT: Utilities equipment with supplemental kits (cartridges, NBC filters etc.), MHE, water testing kit, tool kits, PPE.

MATERIAL: Chemicals to purify raw water source.

UNITS/PERSƠNNEL: Note: Request Navy Medical Technician and Preventive Medicine Technician (PMT) as required.

ENGR-UTIL-4003: Provide tactical hygiene support

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Provide tactical hygiene support in order to provide sanitary shower, laundry, and field sanitation support to meet the commander's intent.

CONDITION: With a utilities plan, required equipment and personnel.

STANDARD: To meet planning requirements in accordance with commander's intent.

EVENT COMPONENTS:
1. Establish shower facilities.
2. Establish laundry facilities.
3. Supervise field sanitation.

PREREQUISITE EVENTS:
1120-XENG-2501  1120-XENG-2555  1169-XENG-2501
1169-XENG-2555

CHAINED EVENTS:
ENGR-MANT-3001  ENGR-MANT-3002  ENGR-UTIL-3009
ENGR-UTIL-3010  ENGR-UTIL-3011  ENGR-UTIL-3012

RELATED EVENTS:
1169-ADMN-2007  1169-ADMN-2021  1169-ADMN-2022
1169-ADMN-2051  1169-ADMN-2052  1169-ADMN-2091
1169-XENG-2502  1169-XENG-2655  1169-XENG-2755
1169-XENG-2855

REFERENCES:
1. Appropriate Technical Manuals
2. MCRP 4-11.1D Field Hygiene and Sanitation

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Utilities equipment, Material Handling equipment, PPE.

MATERIAL: Building materials (gravel, lime, pest insecticide, lumber, etc.)

ENGR-VERT-4001: Construct manufactured steel structure

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Any manufactured steel structures to include but not limited to K-spans, Butler buildings, Pre-engineered buildings, Framed shelters w/vinyl cover, etc.

CONDITION: Given a mission, commander's intent, tactical situation, task organized equipment and personnel, steel structure components, design specifications, construction materials and appropriate references.

STANDARD: That meets the requirements listed in the manufacturer specifications, in accordance with the commander's intent and concept of operations.

EVENT COMPONENTS:
1. Review construction plans and schematics.
2. Review engineer reconnaissance and survey.
3. Acquire resources needed for project.
4. Conduct site preparation as required.
5. Operate/employ engineer equipment and kits.
6. Construct/install foundation, as required.
7. Construct/install flooring, as required.
8. Construct/install structure(s), as required.
9. Construct/install doors, as required.
10. Construct/install windows, as required.
11. Submit required reports.

PREREQUISITE EVENTS:
1302-SURV-1005 1302-VERT-1001 ENGR-RECN-5001

CHAINED EVENTS: ENGR-RECN-3003

RELATED EVENTS:
1302-EOPS-1001 1302-EOPS-1002 1302-EOPS-1003
1302-EOPS-1007 1302-EOPS-1009 1302-SURV-1001
1316-XENG-1001 1316-XENG-1006 1371-EOPS-1001
1371-EOPS-2010 1371-EOPS-2011 1371-EOPS-2012
1371-HORZ-1001 1371-HORZ-1002 1371-HORZ-1003
REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. JP 3-15 Barriers, Obstacles, and Mine Warfare for Joint Operations
3. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
4. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
5. MCRP 3-17.7C Carpentry
6. MCRP 3-17.7D Concrete and Masonry
7. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
8. MCRP 3-17.7F Project Management
9. MCRP 3-17.7I Earthmoving Operations
10. MCRP 3-17.7K Theater of Operations Electrical Systems
11. MCRP 3-17.7L Explosives and Demolitions
12. MCRP 3-17A Engineering Field Data
13. MCRP 4-11.1D Field Hygiene and Sanitation
14. MCWP 3-17 Engineering Operations
15. MCWP 3-17.6 Survivability
16. MCWP 3-33 Military Operations Other Than War (MOOTW)
17. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
18. MCWP 3-41.1 Rear Area Operations
19. MCWP 4-1 Logistics Operations
20. MCWP 4-11 Tactical-Level Logistics
21. TM 5-232 Elements of Construction Surveying

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer Earthmoving equipment, Material Handling equipment, Combat engineer equipment, Utilities equipment.

ENGR-VERT-4002: Construct wood frame structure

SUPPORTED MET(S):
MCT 5.3.3.3
MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Construct wood frame structures for use in all operations conducted to include but not limited to strong backs, sheds, facilities, sea huts, etc., or may be specified in mission directives.

CONDITION: Given a mission, commander's intent, tactical situation, task organized equipment and personnel, design specifications, construction plans, design specifications, construction materials and references.
STANDARD: That meets the requirements listed in the design specifications in accordance with the commander's intent.

EVENT COMPONENTS:
1. Review construction plans and schematics.
2. Review engineer reconnaissance and survey.
3. Acquire resources needed for project.
4. Conduct site preparation as required.
5. Operate/employ engineer equipment and kits.
6. Construct/install footers, as required.
7. Construct/install flooring structure, as required.
8. Construct/install wall structure(s), as required.
9. Construct/install roof structure, as required.
10. Construct/install doors, as required.
11. Construct/install windows, as required.
12. Finish interior, as required.
13. Finish exterior, as required.
14. Submit required reports.

PREREQUISITE EVENTS:
1302-VERT-1001  1371-VERT-2001  ENGR-RECN-5001

CHAINED EVENTS:
ENGR-EQIP-3001  ENGR-EQIP-3002  ENGR-EQIP-3003
ENGR-RECN-3001  ENGR-RECN-3003  ENGR-UTIL-3001

RELATED EVENTS:
1302-EOPS-1007  1302-EOPS-1009  1302-RECN-1001
1371-EOPS-1002  1371-EOPS-1003  1371-EOPS-1004
1371-EOPS-2010  1371-EOPS-2011  1371-EOPS-2012
1371-HORZ-2002  1371-HORZ-2003  1371-MANT-1001
1371-VERT-1001  1371-VERT-1002  1371-VERT-2002

REFERENCES:
1. MCRP 3-17.7C Carpentry
2. MCRP 3-17.7F Project Management
3. MCRP 3-17.7M Construction Estimating
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.6 Survivability
6. MCWP 3-17.7 General Engineering
7. MCWP 3-33 Military Operations Other Than War (MOOTW)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17330 Covered Training Area
Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer Material Handling equipment, Combat Engineer Tools and Kits, PPE.

MATERIAL: Class IV
OTHER SUPPORT REQUIREMENTS: Electrical and fuel requirements.

ENGR-VERT-4003: Construct concrete block structure

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: To conduct concrete block and other masonry construction as directed. Task emphasizes type of material, placement, finishing, and equipment used to build structures and foundations. This task also implies use of wood frame components for roofs and opening enclosures (doors, windows, etc.).

CONDITION: Given a mission, commander's intent, tactical situation, task organized equipment and personnel, design specifications, construction materials and appropriate references.

STANDARD: That meets the requirements listed in the design specifications in accordance with the commander's intent and concept of operations.

EVENT COMPONENTS:
1. Review construction plans and schematics.
2. Review engineer reconnaissance and survey.
3. Acquire resources needed for project.
4. Conduct site preparation, as required.
5. Operate/employ engineer equipment and kits.
6. Construct/install foundation, as required.
7. Construct/install wall structure(s), as required.
8. Place opening(s), as required.
9. Construct/place roof, as required.
10. Construct/install doors, as required.
11. Construct/install windows, as required.
12. Submit required reports.

PREREQUISITE EVENTS:
1302-VERT-1001 ENGR-RECN-5001

CHAINED EVENTS:
ENGR-EQIP-3001 ENGR-EQIP-3002 ENGR-EQIP-3003
ENGR-RECN-3003 ENGR-UTIL-3001

RELATED EVENTS:
1302-EOPS-1001 1302-EOPS-1002 1302-EOPS-1003
1302-EOPS-1007 1302-EOPS-1009 1302-RECN-1001
1316-XENG-1001 1316-XENG-1006 1371-EOPS-1001
1371-EOPS-1004 1371-EOPS-2005 1371-EOPS-2006
1371-EOPS-2007 1371-EOPS-2010 1371-EOPS-2011
1371-EOPS-2012 1371-HORZ-1001 1371-HORZ-1002
1371-HORZ-1003 1371-HORZ-2004 1371-HORZ-2005
1371-MANT-1001 1371-RECN-2001 1371-VERT-1003
REFERENCES:
1. MCRP 3-17.7C Carpentry
2. MCRP 3-17.7D Concrete and Masonry
3. MCRP 3-17.7F Project Management
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 3-17 Engineering Operations
7. MCWP 3-17.6 Survivability
8. MCWP 3-17.8 Combined Arms Mobility Operations
9. MCWP 3-33 Military Operations Other Than War (MOOTW)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17330 Covered Training Area
Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Concrete and Masonry kit, concrete mixer, Pioneer kit, PPE

MATERIAL: Portland cement, coarse and fine aggregate, ad-mixture

OTHER SUPPORT REQUIREMENTS: Electrical and fuel requirements

ENGR-VERT-4004: Construct timber structure

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Conduct construction of timber structures for survivability of personnel and equipment. Structures consist of but not limited to bunkers, shelters, overhead cover, guard posts, crew-serve weapons positions, and individual fighting positions.

CONDITION: Given a mission, commander's intent, tactical situations, task organized equipment and personnel, design specifications, construction materials and references.

STANDARD: To meet the survivability requirements in accordance with the commander's intent and concept of operations.

EVENT COMPONENTS:
1. Review construction plans and schematics.
2. Review engineer reconnaissance and survey.
3. Acquire resources needed for project.
4. Conduct site preparation, as required.
5. Operate/employ engineer equipment and kits.
6. Construct/prefabricate structures, as required.
7. Emplace structures, as required.
8. Construct/install wall structure(s), as required.
9. Construct/install roof structure/components, as required.
10. Construct/install doors, as required.
11. Construct/install portholes, as required.
12. Sandbag structure, as required.
13. Camouflage as required.
14. Install grenade sumps, as required.
15. Submit required reports.

PREREQUISITE EVENTS:
1302-SURV-1002  1302-VERT-1001  ENGR-RECN-5001

CHAINED EVENTS:
ENGR-EQIP-3002  ENGR-EQIP-3003  ENGR-RECN-3003
ENGR-SURV-3002  ENGR-SURV-3003  ENGR-SURV-3004
ENGR-SURV-3005  ENGR-SURV-3006  ENGR-SURV-3007
ENGR-UTIL-3001

RELATED EVENTS:
1302-EOPS-1007  1302-EOPS-1009  1302-RECN-1001
1302-SURV-1001  1371-EOPS-1002  1371-EOPS-1003
1371-EOPS-2008  1371-EOPS-2010  1371-EOPS-2011
1371-EOPS-2012  1371-MANT-1001  1371-RECN-2001
1371-SURV-1001  1371-SURV-2001  1371-SURV-2002
1371-VERT-1001  1371-VERT-1002  1371-VERT-1004
1371-VERT-1005

REFERENCES:
1. FM 5-100 Engineers in Combat Operations
2. MCRP 3-17.7C Carpentry
3. MCRP 3-17.7F Project Management
4. MCRP 3-17.7M Construction Estimating
5. MCWP 3-17 Engineering Operations
6. MCWP 3-17.6 Survivability
7. MCWP 3-17.7 General Engineering
8. MCWP 3-33 Military Operations Other Than War (MOOTW)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer Material Handling equipment, Combat Engineer tools and Kits

ENGR-VERT-4005: Repair existing structures

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Engineers will conduct this task for any type of structure
(wood, concrete, steel, bridges, etc.) or facilities that have been damaged/flawed or incorrect per design specifications.

**CONDITION:** Given a mission, commander's intent, tactical situation, task organized equipment and personnel, structure/facility in need of repair, construction materials and references.

**STANDARD:** To meet the original design requirements/specifications to restore structure or facilities and in accordance with the commander's intent.

**EVENT COMPONENTS:**
1. Review construction plans and schematics, as required.
2. Review engineer reconnaissance and survey, as required.
3. Acquire resources needed for project.
4. Conduct site preparation, as required.
5. Operate/employ engineer equipment and kits.
6. Repair/replace structural components, as required.
7. Repair/replace electrical, as required.
8. Repair bridge abutments, as required.
9. Repair/replace plumbing, as required.
10. Submit required reports.

**PREREQUISITE EVENTS:**

| 1120-XENG-2501 | 1302-VERT-1001 | ENGR-RECN-5001 |

**CHAINED EVENTS:**

| ENGR-EQIP-3002 | ENGR-EQIP-3003 | ENGR-RECN-3002 |
| ENGR-RECN-3006 | ENGR-UTIL-3001 | ENGR-UTIL-3004 |
| ENGR-UTIL-3012 |

**RELATED EVENTS:**

| 1302-EOPS-1009 | 1302-RECN-1001 | 1316-ADMN-1001 |
| 1316-XENG-1006 | 1371-EOPS-2007 | 1371-EOPS-2010 |
| 1371-EOPS-2011 | 1371-RECN-1001 | 1371-VERT-1001 |
| 1371-VERT-1002 | 1371-VERT-1003 | 1371-VERT-1004 |
| 1371-VERT-1005 |

**REFERENCES:**
1. MCRP 3-17.7C Carpentry
2. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
3. MCRP 3-17.7F Project Management
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.6 Survivability
6. MCWP 3-33 Military Operations Other Than War (MOOTW)

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** Engineer Material Handling equipment, Combat Engineer tools and kits
ENCGR-VERT-4006: Construct concrete structure

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Construction of concrete structures for use in all operations conducted to include but not limited to wing walls, buildings, foundations, retaining walls, etc., or may be specified in mission directives in support of the MAGTF.

CONDITION: Given a mission, commander's intent, tactical situation, task organized equipment and personnel, design specifications, construction materials and appropriate references.

STANDARD: To meet the requirements listed in the design specifications, in accordance with the commander's intent and concept of operations.

EVENT COMPONENTS:
1. Review construction plans and schematics.
2. Review engineer reconnaissance and survey.
3. Acquire resources needed for project.
4. Conduct site preparation, as required.
5. Operate/employ engineer equipment and kits.
6. Construct/install form work for footers, as required.
7. Construct/install form work for walls, as required.
8. Place reinforcement material, as required.
9. Place concrete for footer(s), as required.
10. Place concrete for wall(s), as required.
11. Place concrete for slab(s), as required.
12. Consolidate concrete, as required.
13. Finish concrete, as required.
14. Remove forms, as required.
15. Submit required reports.

PREREQUISITE EVENTS:
1302-VERT-1001 ENGR-RECN-5001

CHAINED EVENTS:
ENGR-EQIP-3001 ENGR-EQIP-3002 ENGR-EQIP-3003
ENGR-RECN-3002 ENGR-UTIL-3001

RELATED EVENTS:
1302-EOPS-1001 1302-EOPS-1002 1302-EOPS-1003
1371-EOPS-1001 1371-EOPS-2005 1371-HORZ-1001
1371-HORZ-1002 1371-HORZ-1003 1371-HORZ-2004
1371-HORZ-2005

REFERENCES:
1. MCRP 3-17.7C Carpentry
2. MCRP 3-17.7D Concrete and Masonry
3. MCRP 3-17.7F Project Management
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.6 Survivability
6. MCWP 3-33 Military Operations Other Than War (MOOTW)

SUPPORT REQUIREMENTS:

**EQUIPMENT:** Engineer Material Handling equipment, Combat Engineer tools and kits

**ENGR-VERT-4007:** Construct expedient drainage structure

**SUPPORTED MET(S):**

<table>
<thead>
<tr>
<th>MCT 5.3.3.3</th>
<th>MCT 6.3.3</th>
</tr>
</thead>
</table>

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

**DESCRIPTION:** Construction of expedient drainage structures (ditching, culverts, etc.) are designed for temporary conduit for water runoff from existing or proposed base camps, roads, airfields and watersheds until a permanent structure(s) can be installed.

**CONDITION:** Given a mission, commander's intent, tactical situation, task organized equipment and personnel, design specifications, construction materials and appropriate references

**STANDARD:** To meet the requirements listed in the design specifications in accordance with the commander's intent.

**EVENT COMPONENTS:**
1. Review construction plans and schematics.
2. Review engineer reconnaissance and survey.
3. Acquire resources needed for project.
4. Conduct site preparation, as required.
5. Operate/employ engineer equipment and kits.
6. Construct expedient ditch relief culverts.
7. Construct expedient log culverts.
8. Construct oil drum culvert.
10. Cover expedient culverts, as required.
11. Construct expedient head/wing walls, as required.
12. Submit required reports.

**PREREQUISITE EVENTS:**

<table>
<thead>
<tr>
<th>1302-HORZ-1001</th>
<th>1302-HORZ-1002</th>
<th>1371-HORZ-2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-RECN-4001</td>
<td>ENGR-RECN-5001</td>
<td></td>
</tr>
</tbody>
</table>

**CHAINED EVENTS:**

<table>
<thead>
<tr>
<th>ENGR-EQIP-3002</th>
<th>ENGR-EQIP-3003</th>
<th>ENGR-HORZ-3001</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGR-RECN-3001</td>
<td>ENGR-UTIL-3001</td>
<td>ENGR-VERT-3001</td>
</tr>
</tbody>
</table>

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>1345-ADMN-2002</th>
<th>1345-HEOP-1003</th>
<th>1345-HEOP-1004</th>
</tr>
</thead>
<tbody>
<tr>
<td>1345-HEOP-1005</td>
<td>1345-HEOP-1006</td>
<td>1345-HEOP-1007</td>
</tr>
</tbody>
</table>
REFERENCES:
1. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
2. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
3. MCRP 3-17.7E Plumbing, Pipe Fitting, and Sewerage
4. MCRP 3-17.7F Project Management
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: MHE, utilities and combat engineer equipment.

HQCO-ABGD-4001: Implement security measures

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES          SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The second fundamental of area security is unit responsibility. When executing area security or unit defense, unit commanders can take the active and passive measures to enhance rear area security.

CONDITION: Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

STANDARD: To establish rear area security within the designed criteria and the commander's intent.

EVENT COMPONENTS:
1. Train units in anti-armor and air defense.
2. Organize units for defensive operations.
3. Equip support personnel with weapon/munitions.
4. Equip augment personnel with weapons/munitions.
5. Conduct security patrols.
6. Conducting route sweeps.
7. Employ observation posts.
8. Employ listening posts.
9. Establish traffic control to vulnerable facilities and activities.
10. Establish access control to vulnerable facilities and activities.
11. Establish security for convoys.
12. Position LAAD units in depth within objective area.
13. Integrate CAS and close fire support.
14. Establish defensive positions and obstacles.
15. Conduct camouflaging for cover and concealment of resources.
17. Utilize natural cover as a security.
18. Establish redundancy in critical facilities.
19. Harden installations.
20. Employ deception measures.
21. Establish dummy installations and positions.

**PREREQUISITE EVENTS:** HQCO-ABGD-6001

**CHAINED EVENTS:**
- ENGR-CMOB-3002
- ENGR-CMOB-3004
- ENGR-SURV-3002
- ENGR-SURV-3003
- ENGR-SURV-3007
- ENGR-SURV-4002
- ENGR-SURV-4003
- ENGR-SURV-4004
- HQCO-ABGD-3002
- HQCO-ABGD-3001

**RELATED EVENTS:**
- MCCS-DEF-3002
- MCCS-DEF-3003
- MCCS-PAT-3500
- MCCS-PAT-3701

**REFERENCES:**
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**HQCO-ABGD-4002:** Employ Force Protection Conditions (FPCON)

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Force Protection conditions (FPCON) are designed to provide awareness to forces in all locations and situations; it is accomplished through planned and integrated application of combating terrorism, physical security, operations security, personal protective services, and supported by intelligence, counterintelligence, and other security programs.

**CONDITION:** Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

**STANDARD:** To establish rear area security within the designed criteria and the commander's intent.
EVENT COMPONENTS:
1. Participate in Force Protection Condition planning.
2. Implement plan.
3. Identify FPCON conditions.
4. Post daily FPCON condition.
5. Identify terrorist threat levels.
6. Integrate security fundamentals.
7. Establish security posture for conditions.

PREREQUISITE EVENTS: HQCO-ABGD-6001

REFERENCES:
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

HQCO-ABGD-4003: Employ security objectives

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES   SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: These are goals used to enhance rear area security in all levels of Air Base Ground defense. They are used when planning, implementing and executing.

CONDITION: Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and the references.

STANDARD: To establish rear area security within the designed criteria and the commander's intent.

EVENT COMPONENTS:
1. Establish security for required areas i.e. rear, local areas, and facilities.
2. Establish preventive measures for enemy interference with command, control, and communications operations.
3. Establish preventive measures for disruption of aviation operations.
5. Provide unimpeded movement of friendly units through the area.
6. Establish security for enemy incursion areas.
7. Establish quick and responsive area damage control.

PREREQUISITE EVENTS: HQCO-ABGD-6001

REFERENCES:
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**HQCO-ABGD-4004:** Employ security principles

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** They are used as a guide to accomplish ABGD in the planning, implement and execution of security operations.

**CONDITION:** Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and the references.

**STANDARD:** To establish rear area security within the designed criteria and the commander's intent.

**EVENT COMPONENTS:**
1. Task Organize.
2. Establish air base defense forces/perimeter security and defense.
3. Utilize augmented forces as initial reaction force and security screen.
4. Employ augmented force with Ground Combat Element (GCE), if required.
5. Employ engineers in ABGD planning and operations.
6. Establish a BDOC for ABGD coordination and control.
7. Establish responsiveness criteria.

**PREREQUISITE EVENTS:**
HQCO-ABGD-6001  HQCO-ABGD-5004

**CHAINED EVENTS:**
HQCO-ABGD-3001  HQCO-ABGD-3002

**REFERENCES:**
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**HQCO-ABGD-4005:** Employ security tasks
**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** They are used to accomplish ABGD in the planning, implement and execution of security operations.

**CONDITION:** Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

**STANDARD:** To establish rear area security within the designed criteria and the commander's intent.

**EVENT COMPONENTS:**
1. Secure necessary support to sustain AGS/combat service support.
2. Establish active security measures i.e. (observation, patrols, and electronic sensors).
3. Establish delay tactics using (firing positions, sectors, obstacles, etc.).
4. Establish methods for immediate reaction to enemy incursions. (Immediate reaction requires thorough planning, coordination, and rehearsal).

**PREREQUISITE EVENTS:**
HQCO-ABGD-6001  
HQCO-ABGD-5004

**CHAINED EVENTS:**
HQCO-ABGD-3001  
HQCO-ABGD-3002

**RELATED EVENTS:**
MCCS-DEF-3001  
MCCS-DEF-3002  
MCCS-DEF-3003
MCCS-DEF-3007  
MCCS-DEF-3600

**REFERENCES:**
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

---

**HQCO-ABGD-4006:** Employ security and control procedures

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Using the ABGD plan these procedures and tactics aid rear area security by controlling personnel and vehicles access and movement within the
ACE area of operations. They are implemented and executed for all levels of security in economy of the force.

**CONDITION:** Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

**STANDARD:** To establish rear area security within the designed criteria and the commander's intent.

**EVENT COMPONENTS:**
1. Establish identification check procedures for individuals entering base.
2. Establish entry/exit points.
3. Position crew-serve weapons as reinforcement for high-speed avenues of approach.
4. Position crew-serve weapons as reinforcement for entry points.
5. Establish redundancy in communications (telephone and radio).
6. Establish rally points.
7. Establish staging areas.
8. Employ night vision devices and other security enhancing equipment (e.g., flood lights).
9. Develop range cards.
10. Develop a fire support plan.
11. Harden critical facilities.
12. Harden defensive/security positions.
13. Position listening post based on threat (locate enemy before he can disrupt operations).
14. Position observation post based on threat (locate enemy before he can disrupt operations).
15. Position sentry post based on threat (locate enemy before he can disrupt operations).
16. Establish reporting procedures.
17. Establish procedures for signals.
18. Establish vehicle search procedures.
20. Establish random patrols (unpredictable).

**PREREQUISITE EVENTS:**
HQCO-ABGD-6001 HQCO-ABGD-5004

**CHAINED EVENTS:**
ENGR-CMOB-3002 ENGR-SURV-3002 ENGR-SURV-3003
ENGR-SURV-3007 ENGR-SURV-4001 ENGR-SURV-4002
ENGR-SURV-4003 ENSR-SURV-4004 ENGR-VERT-4004
HQCO-ABGD-3001 HQCO-ABGD-3002

**RELATED EVENTS:**
MCCS-DEF-2101 MCCS-DEF-3002 MCCS-DEF-3007
MCCS-OFF-3005

**REFERENCES:**
1. JP 3-10 Joint Security Operations in Theater
2. JP 3-10.1 Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
3. MCWP 3-21.1 Aviation Ground Support
4. MCWP 3-41.1 Rear Area Operations

SUPPORT REQUIREMENTS:

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**HQCO-ABGD-4007:** Process detained personnel

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** NO  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Provisional security forces may be required to capture or place individuals under the control of U.S. forces. The efficient and effective control, processing, detention, and intelligence exploitation of such personnel is often critical to the success of U.S. forces. The humane treatment and proper care of detained personnel as they are moved to either temporary or permanent internment facilities support this goal.

**CONDITION:** Given a unit that is conducting tactical operations, has captured known or suspected enemy personnel, and the unit remains in contact with the enemy.

**STANDARD:** To ensure safe and expeditious handling of detained personnel in accordance with the laws of armed conflict.

**EVENT COMPONENTS:**
1. Search detainees immediately after capture as required.
2. Tag and evacuate weapons, documents, and items of potential intelligence value at the same time as detainees.
3. Return personnel items, protective clothes, and equipment to the detainees.
4. Segregate detainees by type and gender - Officers, NCO, unranked, civilian combatants, etc.
5. Ensure detainees are prevented from conversing among themselves.
6. Ensure detainees are processed quickly to obtain maximum intelligence benefit.
7. Report perishable information obtained from detainees immediately to higher headquarters.
8. Ensure detainees are safeguarded from abuse and the hazards of enemy fire.
9. Treat enemy casualties with the same medical care and MEDEVAC priority as friendly casualties. Any difference in treatment is based solely on medical reasons.
10. Transfer custody of detainee(s) to higher or Detainee Facility.

**PREREQUISITE EVENTS:**
HQCO-ABGD-6001  HQCO-ABGD-5004

**REFERENCES:**
1. JP 3-36 Detainee Operations
2. MCO 3461.1 EPW, Retain, CI, and other Detainees
3. MCWP 3-11.1 Marine Rifle Company/ Platoon

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17904 Prisoner Of War Training Area

OTHER SUPPORT REQUIREMENTS:  Maneuver/Training area, role players, documents/ weapons.

HQCO-COMM-4001:  Establish data network services

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.2.12  MCT 5.3.3.3
MCT 6.3.3

EVALUATION-CODED:  YES  SUSTAINMENT INTERVAL:  3 months

DESCRIPTION:  The Section will employ data network resources IAW the Data Network Plan utilizing all necessary support assets. Examples of successful tasks include the installation of switches, routers, servers and boundary protection devices to provide access to secure/non-secure email, web browsing and other required data network services.

CONDITION:  Given a command's mission, a data network plan, all equipment and personnel, an approved certification and accreditation package, and an existing digital backbone.

STANDARD:  Within 48 hours to satisfy the commander's information exchange requirements.

EVENT COMPONENTS:
1. Install network architecture.
2. Implement computer network defense.
3. Install network services.
4. Provide end user support.

RELATED EVENTS:
0602-PLAN-1105  0603-PLAN-2104  0603-PLAN-2105
0603-PLAN-2107  0610-DSGN-2201  0610-ENGR-2301
0610-MNGT-2701  0610-MNGT-2702  0610-MNGT-2703
0610-PLAN-2101  0612-MANT-2601  0612-MNGT-2702
0612-MNGT-2704  0619-MNGT-2701  0619-MNGT-2702
0650-DSGN-2202  0650-ENGR-2301  0650-MNGT-2701
0650-PLAN-2101  0651-INST-2401  0651-MANT-2601
0651-OPER-2501  0651-OPER-2503  0651-PLAN-2101
0659-MNGT-2702  0659-PLAN-2101

REFERENCES:
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCWP 3-40.3 MAGTF Communications System

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17413 Field Training Area

**HQCO-COMM-4002:** Install trunked telephony services

**SUPPORTED MET(S):**
MCT 4.6.3  MCT 5.3.2.12  MCT 5.3.3.3
MCT 6.1.1.3.4  MCT 6.3.3

**EVALUATION-CODED:** NO  **SUSTAINMENT INTERVAL:** 3 months

**DESCRIPTION:** The section will IOM all telephony services IAW the telephone network plan utilizing all necessary support assets. Examples of successful tasks are establishing secure and non-secure call processing in a stand-alone or stacked architecture.

**CONDITION:** Given a command's mission, telephone network plan, all equipment and personnel.

**STANDARD:** Within 4 hours of establishment of an integrated network that satisfies the commander's information exchange requirements.

**EVENT COMPONENTS:**
1. Verify trunk connectivity
2. Program switchboard trunk.
3. Verify trunk connectivity.

**RELATED EVENTS:**
0603-PLAN-2104  0610-DSGN-2201  0610-DSGN-2202
0610-ENGR-2301  0610-ENGR-2302  0610-MNGT-2701
0610-MNGT-2702  0610-MNGT-2703  0610-MNGT-2704
0610-PLAN-2101  0610-PLAN-2102  0612-INST-1404
0612-INST-1406  0612-MANT-2601  0612-MNGT-2702
0612-MNGT-2704  0619-MNGT-2701  0619-PLAN-2101
0699-MNGT-2703

**REFERENCES:**
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCWP 3-40.3 MAGTF Communications System

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17413 Field Training Area
**HQCO-MED-4001:** Coordinate patient movement

**SUPPORTED MET(S):** MCT 5.3.3.3

**EVALUATION-CODED:** YES **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Patient movement is a system that provides a continuum of care and coordinates the movement of patients from point of injury or onset of disease through successive levels of medical care, to an appropriate taxonomy of care that can meet the needs of the patient. Prompt movement of casualties through the evacuation system to treatment facilities is essential to decrease morbidity and mortality.

**CONDITION:** Given a patient, personnel, equipment, supplies and a mode of transport.

**STANDARD:** To evacuate patients to higher level of care.

**EVENT COMPONENTS:**
1. Receive casualty evacuation request.
2. Determine means of casualty movement.
3. Determine casualty destination facility.
4. Coordinate with DASC for air support as needed.
5. Track casualty movement

**REFERENCES:**
1. MCRP 4-11.1G Patient Movement
2. MCWP 4-11.1 Health Service Support Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17413 Field Training Area

---

**HQCO-OPS-4001:** Conduct Damage Assessment Team (DAT) activities

**SUPPORTED MET(S):**
- MCT 4.6.3
- MCT 5.3.3.3
- MCT 6.3.3

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

**DESCRIPTION:** DATs are responsible for reconnoitering and surveying the airfield for damage such as craters, spalls, and UXOs on the runway, taxiway, and other facilities that directly support aircraft operations. The DATs report airfield damage directly to the AGSOC. Normally, four teams are required for a main air base and two teams are required for an air facility. The number of teams should be based on the number of runways and airfield operating surfaces that need to be maintained. Often, the more DATs that can be fielded, the quicker battle damage can be determined and the airfield recovered. To shorten airfield restoration time, runway damage assessment and UXO assessment can be done simultaneously.

**CONDITION:** Given a tactical situation, an operations order, commander's
intent, task organized personnel and equipment and references.

**STANDARD:** To provide the AGSOC with an assessment of battle damage to the airfield and in support of the MWSS Commander's intent.

**EVENT COMPONENTS:**
1. Receive the order.
2. Task organize.
3. Conduct reconnaissance of the airfield.
4. Conduct reconnaissance of the airfield support facilities.
5. Survey the airfield.
6. Survey the airfield support facilities.
7. Record damage of areas assessed.
8. Report damage assessment to MOS selection team
9. Submit report to the AGSOC.

**PREREQUISITE EVENTS:** SQDR-OPS-7003

**CHAINED EVENTS:**
ENGR-RECN-3001 ENGR-RECN-3002

**RELATED EVENTS:** 1302-EOFS-1004

**REFERENCES:**
1. MCO 3501.17 MARINE CORPS COMBAT READINESS EVALUATION SYSTEM (SHORT TITLE: MCCRES); VOLUME XIII, MARINE WING
2. MCWP 3-21.1 Aviation Ground Support

**RANGE/TRAINING AREA:**
Facility Code 17330 Covered Training Area
Facility Code 17410 Maneuver/Training Area, Light Forces

**HQCO-OPS-4002:** Conduct Damage Assessment and Response Team (DART) activities

**SUPPORTED MET(S):**
MCT 4.6.3 MCT 5.3.3.3 MCT 6.3.3

**EVALUATION-CODED:** YES **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** DARTs assess damage to designated critical facilities, report the presence of UXO, and isolate utility disruptions. Three teams are normally sufficient for a main air base. The number and personnel skill mix vary in a DART, permitting each DART to perform damage assessment on a variety of systems. Personnel chosen should have technical expertise appropriate to the type damage to be assessed (electrical, mechanical or structural).

**CONDITION:** Given a tactical situation, an operations order, commander's intent, task organized personnel and equipment and references.

**STANDARD:** To provide the AGSOC with an assessment of battle damage to the airfield and in support of the MWSS Commander's intent.
airfield and in support of the MWSS Commander's intent.

**EVENT COMPONENTS:**
1. Receive the order.
2. Task organize.
3. Assess damage to command posts directly related to combat flying squadrons.
4. Assess damage to control facilities directly related to combat flying squadrons.
5. Assess damage to communications facilities.
6. Assess damage to POL areas.
7. Assess damage to munitions facilities.
8. Assess damage to fire stations.
9. Assess damage to medical facilities.
10. Assess damage to utility plants.
11. Assess damage to distribution stations.
12. Record damage of areas assessed.
14. Submit report to the AGSOC.

**PREREQUISITE EVENTS:** 
SQDR-OPS-7003

**CHAINED EVENTS:**
ENGR-RECN-3001   ENGR-RECN-3002

**RELATED EVENTS:**
1302-EOPS-1004

**REFERENCES:**
1. MCO 3501.17 MARINE CORPS COMBAT READINESS EVALUATION SYSTEM (SHORT TITLE: MCCRES); VOLUME XIII, MARINE WING
2. MCWP 3-21.1 Aviation Ground Support

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
Facility Code 17330 Covered Training Area
Facility Code 17410 Maneuver/Training Area, Light Forces

**MTCO-LIC-4001:** Provide a licensing program

**SUPPORTED MET(S):** MCT 5.3.3.3

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

**DESCRIPTION:** Administration of the licensing program IAW current policy and directives.

**CONDITION:** Provided with the requirement, personnel and equipment.

**STANDARD:** To ensure all training, testing and administrative requirements are completed to operate equipment without injury to personnel or damage to equipment.
EVENT COMPONENTS:
1. Process applicants for licenses.
2. Conduct driver's testing.
3. Conduct individual driver's training.
5. Maintain driver's history files.

RELATED EVENTS:
3510-LIC-2301 3537-OPER-2301

REFERENCES:
1. MCO 11240.66_ Standard Licensing Policy for Operators of Military Motor Vehicles
2. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Motor transport equipment.

MTCO-OPS-4001: Conduct convoy operations

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: A tactical convoy is a deliberate planned combat operation to move personnel and/or cargo via ground transportation in a secure manner under the control of a single commander. Tactical convoys must have access to the current common operational picture and maintain an aggressive posture that is both agile and unpredictable. Contact with the enemy can be mitigated by security and detailed planning/coordination; however, the convoy should be prepared to take immediate action against any enemy threat. One of the main enemy tactics on the nonlinear battlefield is to target soft targets, lines of communication, and supplies.

CONDITION: Given vehicles, personnel, required tools and equipment.

STANDARD: To arrive at a determined location with all required equipment and personnel.

EVENT COMPONENTS:
1. Analyze the operation order.
2. Draft a movement order.
3. Identify classifications for routes.
4. Conduct a convoy commander's brief.
5. Create a defense plan for tactical convoy.
6. Establish convoy communication.
7. Conduct a debrief.
8. Perform land navigation.
9. Prepare a convoy commander's after action report.

**CHAINED EVENTS:** MTCO-OPS-3002

**RELATED EVENTS:**
- 3510-OPER-2501
- 3510-OPER-2502
- 3510-OPER-2507
- 3531-OPER-1001
- 3531-OPER-1002
- 3537-OPER-2302
- 3537-OPER-2304
- 3537-OPER-2305
- 3537-OPER-2306
- 3537-OPER-2309

**REFERENCES:**
1. ATP 4-11 Army Motor Transport Operations
2. MCWP 3-17.4 Engineer Reconnaissance
3. SOP Standard Operating Procedures (SOP)
4. TC 21-305-20 Manual for the Wheeled Vehicle Operator
5. TM 08089B-01/1A Operators Manual for Semitrailer, Tank: 5,000 Gallon Fuel Dispensing, Under/Overwing Aircraft (MK970)
6. TM 11165A-OR System Operational Manual for Truck, Tractor, 7-Ton, W/O Winch, MK31
7. TM 9-2320-280-10 Operator Manual for the 1 1/2 Ton M998
8. TM 9-2330-202-14&P Trailer, Cargo 3/4 Ton, 2-Wheel
9. TM 9-2330-213-14&P M103 Chassis, Trailer, 1 1/2 Ton, 2-Wheel
10. TM 9-2330-247-14&P M353 Chassis, Trailer, 3 1/2 Ton, 2-Wheel
11. TM 9-2330-267-14&P M149A/A1/A2 Trailer Tank Water, 1 1/2 Ton, 2-Wheel

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

---

**3007. 3000-LEVEL EVENTS**

**AOPS-EOD-3001:** Respond to an Aircraft Incident

**SUPPORTED MET(S):**
- MCT 4.6.3
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Provide response capabilities to aircraft crashes, mishaps, and tactical recovery of aircraft and personnel.

**CONDITION:** Given a requirement.

**STANDARD:** To mitigate explosive components and safely recover equipment/personnel.

**EVENT COMPONENTS:**
2. Develop Plan.
4. Complete the required report.

**CHAINED EVENTS:** EOD-ADMN-3001

**RELATED EVENTS:**
- 2300-ADMN-2001
- 2300-RSP-2003
- 2300-TOOL-2001
- 2301-C2-2001
- 2301-OPS-2001
- 2301-RSP-2001
- 2305-ADMN-2002

**REFERENCES:**
1. AEODPS 60 Series Automated EOD Publication System
2. MCO 3571.2_ Explosive Ordnance Disposal (EOD) Program

**AOPS-EOD-3002:** Conduct CBRN Response Operations

**SUPPORTED MET(S):**
- MCT 4.6.3
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**CONDITION:** Given an EOD response element, while in appropriate PPE, and utilizing EOD tools and equipment.

**STANDARD:** To mitigate the hazards.

**EVENT COMPONENTS:**
1. Coordinate with the on scene commander.
2. Set up a hot line or safe area.
3. Gather all intelligence.
4. Plot downwind hazard area.
5. Clear the downwind hazard area of all personnel.
6. Choose and don correct PPE.
7. Prepare RSP tools and equipment.
10. Conduct leak seal, packaging, mitigation techniques on CBRNE components.
11. Complete the reporting requirements.

**CHAINED EVENTS:** EOD-CBRN-3001

**RELATED EVENTS:**
- 2300-ADMN-2001
- 2300-CBRN-2001
- 2300-CBRN-2002
- 2300-DEMO-2007
- 2300-INTL-2002
- 2300-TOOL-2001
- 2300-TOOL-2006
- 2300-TOOL-2009
- 2300-TOOL-2013
- 2301-C2-2001
- 2301-OPS-2002
- 2301-OPS-2005
- 2305-ADMN-2002

**REFERENCES:**
1. Applicable Marine Corps Orders and Directives
2. AEODPS 60 Series Automated EOD Publication System
3. MCO 1510.101 Individual Training Standards System for Marine Corps Special
   Skills, Vol. II
4. MCO 8027.1 Interservice Responsibilities for Explosive Ordnance Disposal
5. MCRP 3-17.2 Multiservice Procedures for Explosive Ordnance Disposal (NTTP)
   in a Joint Environment
6. TM-10 Applicable Manuals

**SUPPORT REQUIREMENTS:**

**ORDNANCE:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>K765</td>
<td>Riot Control Agent, CS</td>
<td>12 per squad</td>
</tr>
</tbody>
</table>

**OTHER SUPPORT REQUIREMENTS:** Fissile material or agent that will test positive.

---

**AOPS-EOD-3003:** Conduct disposal of explosive components

**SUPPORTED MET(S):**

- MCT 4.6.3
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**CONDITION:** Given demolitions material, EOD tools, and explosive components.

**STANDARD:** To eliminate all threats/components.

**EVENT COMPONENTS:**

1. Determine scale of disposal.
2. Task organize force.
3. Verify complete disposal.
4. Submit report.

**CHAINED EVENTS:** EOD-DEMO-3001

**RELATED EVENTS:**

- 2300-ADMN-2001  
- 2300-DEMO-2005  
- 2300-DEMO-2007  
- 2301-C2-2001  
- 2301-OPS-2002  
- 2305-ADMN-2002

**REFERENCES:**

1. Applicable Marine Corps Orders and Directives
2. Military Munitions Rule
3. AEODPS 60 Series Automated EOD Publication System
4. MCO 3440.7 Marine Corps Support to Civil Authorities
5. NAVSEA OP 5 Vol 1 Ammunition and Explosives/Ashore Safety Regulations of
   Handling, Storage, Production, Renovation and Shipping
6. NAVSEA SWO60-AA-MMA-010 Demolition Materials
7. Op Order Annex C Appendix 13

**SUPPORT REQUIREMENTS:**
ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M023 Charge, Demolition Block M112 1-1/4</td>
<td>2 per Marine</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>10 per Marine</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>100 FT per Marine</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>100 FT per Marine</td>
</tr>
<tr>
<td>M757 Charge, Assembly Demolition M183 Com</td>
<td>1 per Marine</td>
</tr>
<tr>
<td>M980 Charge, Demolition Sheet 0.0831 Inch</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>M981 Charge, Demolition Sheet 0.125 Inch</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>M982 Charge, Demolition Sheet 0.161 Inch</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>M986 Sheet Explosive</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>10 per Marine</td>
</tr>
</tbody>
</table>

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

EQUIPMENT: Demolition Kit

UNITS/PERSONNEL: Corpsman with Trauma Training

AOPS-EOD-3004: Conduct post blast analysis

SUPPORTED MET(S):

| MCT 4.6.3 | MCT 5.3.3.3 | MCT 6.3.3 |

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

CONDITION: Given an impact crater or detonation site, fragmentation and/or components, required EOD references, tools and equipment.

STANDARD: To accurately identify ordnance type/explosive device type, Net Explosive Weight, components, possible initiation for intelligence and EOD reporting.

EVENT COMPONENTS:

1. Secure the area.
2. Search for secondary devices.
3. Gather fragmentation and forensic evidence.
4. Measure the crater or detonation site.
5. Research fragmentation to accurately identify Unexploded Ordnance type/explosive device type, Net Explosive Weight, components, and possible initiation.
6. Plot the back azimuth through the maximum range of the weapons system.
7. Complete the report.

CHAINED EVENTS: EOD-INTL-3401

RELATED EVENTS:


REFERENCES:

1. AEODPS 60 Series Automated EOD Publication System
2. MCO 8027.1 Interservice Responsibilities for Explosive Ordnance Disposal
3. MCRP 3-17.2 Multiservice Procedures for Explosive Ordnance Disposal (NTTP) in a Joint Environment

**SUPPORT REQUIREMENTS:**

**ORDNANCE:**

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B643 Cartridge, 60mm High Explosive M888</td>
<td>1 per Section</td>
</tr>
<tr>
<td>C869 Cartridge, 81mm HE M889/M889A1 with M889</td>
<td>1 per Section</td>
</tr>
<tr>
<td>DA54 Projectile, 155mm HE (IMX-101) w/Sup</td>
<td>1 per Section</td>
</tr>
<tr>
<td>M023 Charge, Demolition Block M112 1-1/4</td>
<td>3 per Section</td>
</tr>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>3 per Section</td>
</tr>
<tr>
<td>M039 Charge, Demolition Cratering 40-Poun</td>
<td>2 per Section</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>13 per Section</td>
</tr>
<tr>
<td>M591 Dynamite, Military M1</td>
<td>3 per Section</td>
</tr>
</tbody>
</table>

**RANGE/TRAINING AREA:**

- Facility Code 17430 Impact Area Dudded
- Facility Code 17820 Engineer Qualification Range, Non-Standardized
- Facility Code 17830 Light Demolition Range
- Facility Code 17937 Aerial Bombing Range

**MATERIAL:** Purchase miscellaneous electronic components and containers to replicate various IEDs in CONUS and OCONUS found.

**UNITS/PERSOMNEL:** Corpsman

**AOPS-EOD-3005:** Conduct sensitive site exploitation

**SUPPORTED MET(S):**

<table>
<thead>
<tr>
<th>MET</th>
<th>4.6.3</th>
<th>5.3.3.3</th>
<th>6.3.3</th>
</tr>
</thead>
</table>

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**CONDITION:** Given a site, intelligence data, an EOD team and equipment.

**STANDARD:** To identify, gain access, mitigate, recover documents and equipment, weapons related explosive, hazardous components, and explosive or non-explosive hazards.

**EVENT COMPONENTS:**

2. Develop a comprehensive plan.
3. Identify target/hazards.
4. Collect on-site intelligence.
5. Exploit documents, equipment, and weapons related explosive or hazardous components.
7. Document findings.
8. Report as required.
CHAINED EVENTS: EOD-OPS-3001

RELATED EVENTS:
2305-ADMN-2002

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
3. DODDIR 3150.5 DOD Response to Improvised Nuclear Device (IND) Incidents
4. DODDIR 3150.8 DOD Response to Radiological Accidents
5. FM 3-11.4 Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
6. FM 5-25 Explosives and Demolitions
7. JP 3-40 Combating Weapons of Mass Destruction
8. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17962 MOUT Collective Training Facility (Small)

AOPS-EOD-3006: Conduct unexploded explosive ordnance (UXO) response operations

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

CONDITION: Given a mission, personnel, equipment, and references.

STANDARD: In order to mitigate threats/hazards to personnel, installations, and equipment.

EVENT COMPONENTS:
2. Develop plan.
3. Task organize force.
4. Secure scene.
5. Establish command and control.
6. Conduct site exploitation.
7. Coordinate internal/external support, if applicable.
8. Mitigate situation.
9. Submit reports.

CHAINED EVENTS: EOD-OPS-3002

RELATED EVENTS:
REFERENCES:
1. AEOEPS 60 Series Automated EOD Publication System
3. DODDIR 3150.5 DOD Response to Improvised Nuclear Device (IND) Incidents
4. DODDIR 3150.8 DOD Response to Radiological Accidents
5. FM 3-11.4 Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
6. FM 5-25 Explosives and Demolitions
7. JP 3-40 Combating Weapons of Mass Destruction
8. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>5 per Marine</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>5 per Marine</td>
</tr>
<tr>
<td>M174 Cartridge, Caliber .50 Impulse Elect</td>
<td>2 per Marine</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>100 FT per Marine</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>100 FT per Marine</td>
</tr>
<tr>
<td>M757 Charge, Assembly Demolition M183 Com</td>
<td>1 per Marine</td>
</tr>
<tr>
<td>M980 Charge, Demolition Sheet 0.0831 Inch</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>M981 Charge, Demolition Sheet 0.125 Inch</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>M982 Charge, Demolition Sheet 0.161 Inch</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>M986 Sheet Explosive</td>
<td>2 FT per Marine</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>5 per Marine</td>
</tr>
</tbody>
</table>

RANGE/TRAINING AREA:
Facility Code 17830 Light Demolition Range
Facility Code 17962 MOUT Collective Training Facility (Small)

AOPS-EOD-3007: Conduct full spectrum EOD operations

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 24 months

CONDITION: Given a mission, personnel, equipment, and references.

STANDARD: In order to mitigate threats/hazards to personnel, installations, and equipment.

EVENT COMPONENTS:
2. Develop plan.
3. Task organize force.
4. Establish command and control.
5. Conduct site exploitation.
6. Coordinate internal/external support, if applicable.
7. Mitigate situation.
8. Submit reports.

**CHAINED EVENTS:** EOD-OPS-3003

**RELATED EVENTS:**
- 2300-ADMN-2001
- 2300-CBRN-2001
- 2300-CBRN-2002
- 2300-INTL-2001
- 2300-OPS-2001
- 2300-OPS-2002
- 2300-RSP-2001
- 2301-ADMN-2002
- 2301-C2-2001
- 2301-OPS-2002
- 2301-RSP-2004

**REFERENCES:**
1. AEODPS 60 Series Automated EOD Publication System
3. DODDIR 3150.5 DOD Response to Improvised Nuclear Device (IND) Incidents
4. DODDIR 3150.8 DOD Response to Radiological Accidents
5. FM 3-11.4 Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
6. FM 5-25 Explosives and Demolitions
7. JP 3-40 Combating Weapons of Mass Destruction
8. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:**
- Facility Code 17830 Light Demolition Range
- Facility Code 17962 MOUT Collective Training Facility (Small)

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** Type/quantities of ammunition, explosives and pyrotechnics are documented with the 2000 Level Events Chained to this event.

**AOPS-EOD-3008:** Conduct IED operations

**SUPPORTED MET(S):**
- MCT 4.6.3
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**CONDITION:** Given a threat.

**STANDARD:** To mitigate all explosive components and operations are conducted
in a safe manner.

EVENT COMPONENTS:
2. Develop plan.
3. Task organize force.
4. Establish command and control.
5. Conduct site exploitation.
6. Coordinate internal/external support, if applicable.
7. Mitigate situation.
8. Submit reports.

CHAINED EVENTS: EOD-OPS-3004

RELATED EVENTS:
2301-C2-2001    2301-OPS-2002    2301-RSP-2004
2305-ADMN-2002  2305-OPS-2002

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
3. DODDIR 3150.5 DOD Response to Improvised Nuclear Device (IND) Incidents
4. DODDIR 3150.8 DOD Response to Radiological Accidents
5. FM 3-11.4 Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
6. FM 5-25 Explosives and Demolitions
7. JP 3-40 Combating Weapons of Mass Destruction
8. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17830 Light Demolition Range
Facility Code 17962 MOUT Collective Training Facility (Small)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Type/quantities of ammunition, explosives and pyrotechnics are documented with the 2000 Level Events Chained to this event.

AOPS-EOD-3009: Conduct WMD operations

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months
CONDITION: Given a threat.

STANDARD: To mitigate all explosive components and ensure operations are conducted in a safe manner.

EVENT COMPONENTS:
2. Develop plan.
3. Task organize force.
4. Establish command and control.
5. Conduct site exploitation.
7. Coordinate internal/external support, if applicable.
8. Mitigate situation.
9. Submit reports.

CHAINED EVENTS: EOD-OPS-3005

RELATED EVENTS:
- 2300-ADMN-2001
- 2300-CBRN-2003
- 2300-INTL-2002
- 2300-TOOL-2001
- 2300-TOOL-2012
- 2301-C2-2001
- 2301-OPS-2002
- 2305-ADMN-2002
- 2305-OPS-2002

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
3. DODDIR 3150.5 DOD Response to Improvised Nuclear Device (IND) Incidents
4. DODDIR 3150.8 DOD Response to Radiological Accidents
5. FM 3-11.4 Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
6. FM 5-25 Explosives and Demolitions
7. JP 3-40 Combating Weapons of Mass Destruction
8. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17962 MOUT Collective Training Facility (Small)

AOPS-EOD-3010: Conduct conventional explosive ordnance operations

SUPPORTED MET(S):
- MCT 4.6.3
- MCT 5.3.3.3
- MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

CONDITION: Given a mission, personnel, equipment, and references.

STANDARD: To mitigate ordnance and ensure operations are conducted safely.
EVENT COMPONENTS:
2. Develop plan.
3. Task organize force.
4. Establish command and control.
5. Conduct site exploitation.
6. Coordinate internal/external support, if applicable.
7. Mitigate situation.
8. Submit reports.

CHAINED EVENTS: EOD-OPS-3006

RELATED EVENTS:
2305-INTL-2001 2305-OPS-2002

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
3. DODDIR 3150.5 DOD Response to Improvised Nuclear Device (IND) Incidents
4. DODDIR 3150.8 DOD Response to Radiological Accidents
5. FM 3-11.4 Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
6. FM 5-25 Explosives and Demolitions
7. JP 3-40 Combating Weapons of Mass Destruction
8. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17830 Light Demolition Range
Facility Code 17962 MOUT Collective Training Facility (Small)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Type/quantities of ammunition, explosives and pyrotechnics are documented with the 2000 Level Events Chained to this event.

AOPS-EOD-3011: Provide nuclear ordnance operations

SUPPORTED MET(S): MCT 4.6.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

CONDITION: Given a mission, personnel, equipment, and references.

STANDARD: To mitigate hazards and reduce the threat of contamination.
EVENT COMPONENTS:
1. Conduct mission analysis.
2. Develop plan.
3. Task organize force.
4. Establish command and control.
5. Conduct site exploitation.
7. Coordinate internal/external support, if applicable.
8. Mitigate situation.
9. Submit reports.

CHAINED EVENTS:  EOD-OPS-3007

RELATED EVENTS:

REFERENCES:
1. AEOFPS 60 Series Automated EOD Publication System
3. DODDIR 3150.5 DOD Response to Improvised Nuclear Device (IND) Incidents
4. DODDIR 3150.8 DOD Response to Radiological Accidents
5. FM 3-11.4 Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
6. FM 5-25 Explosives and Demolitions
7. JP 3-40 Combating Weapons of Mass Destruction
8. MCWP 3-17.2 MAGTF Explosive Ordnance Disposal

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:  Facility Code 17962 MOUT Collective Training Facility (Small)

AOPS-EOD-3012:  Conduct Tactical Combat Casualty Care

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED:  NO  SUSTAINMENT INTERVAL:  24 months

CONDITION:  Given a requirement.

STANDARD:  To mitigate the loss of life.

EVENT COMPONENTS:
1. Perform Individual First Aid Kit inventory.
2. Perform care under fire (CUF), when required.
3. Perform tactical field care, when required.
4. Conduct evacuation of personnel.
CHAINED EVENTS: EOD-OPS-3008

RELATED EVENTS:  
2300-MED-2001  2300-MED-2002  8404-MED-1415

REFERENCES:

SUPPORT REQUIREMENTS:
MATERIAL: Corpsman Assault Pack

MISCELLANEOUS:
ADMINISTRATIVE INSTRUCTIONS: Live tissue training is needed in order to train this task to standard.

AOPS-FUEL-3001: Maintain bulk fuel distribution site

SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Employ bulk fuel systems, to include: SIXCON Modular System (5 Fuel Storage Tank Modules and 1 Fuel Pump Module), Tactical Airfield Fuel Dispensing Systems (TAFDS) and Helicopter Expedient Refueling System (HERS) to establish a bulk fuel site.

CONDITION: With a bulk fuel distribution plan, bulk fuel supply, distribution system, safety equipment, and personnel.

STANDARD: To dispense fuel to using units in order to meet mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Determine personnel, tools, and equipment requirement(s).
3. Survey proposed area and prepare the site.
4. Construct fuel storage site with required components (mission dependent).
5. Construct fuel dispensing assembly (mission dependent).
7. Ensure environmental control devices are properly placed.
8. Ensure repair devices are properly placed.
9. Ensure interface devices are properly placed.
10. Ensure firefighting equipment is properly placed.
11. Ensure quality control measures are in compliance.
12. Ensure grounding rods/cables are properly installed.
13. Set-up inventory control procedures.
14. Dispense fuel as required.
15. Receive fuel resupply as required.
16. Produce reports as required.
17. Recover system as required.

**RELATED EVENTS:**

- 1361-SRVY-1001
- 1361-SRVY-1002
- 1361-SRVY-1006
- 1361-SRVY-1008
- 1361-SRVY-1009
- 1361-SRVY-1010
- 1361-SRVY-1011
- 1361-SRVY-1012
- 1361-SRVY-2001
- 1361-SRVY-2002
- 1390-XENG-2002
- 1390-XENG-2006
- 1390-XENG-2010
- 1390-XENG-2013
- 1391-XENG-1004
- 1391-XENG-1005
- 1391-XENG-2009
- 1391-XENG-2011
- 1391-XENG-2014

**REFERENCES:**

1. FM 10-69 Petroleum Supply Point Equipment and Operations
2. MCWP 4-11 Tactical Level Logistics
3. MCWP 4-11.6 Petroleum and Water Logistics Operations
4. MIL STD 3004 Quality Surveillance Handbook for Fuels, Lubricants and Related Products
5. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
6. TM 3835-OI/IA Marine Corps Tactical Fuel Systems

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17933 POL Training Area

**EQUIPMENT:** Bulk Fuel equipment, PPE, Engineer Equipment, Survey Set G. P., as required

**UNITS/PERSONNEL:** This task may require the support of MOS 1361/1371 for site survey; and potentially MOS 1345 if berming is necessary.

**AOPS-FUEL-3002:** Conduct aircraft fueling operations

**SUPPORTED MET(S):**

- MCT 4.6.3
- MCT 5.3.3.3

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

**DESCRIPTION:** The bulk fuel section uses the Tactical Airfield Fuel Dispensing Systems (TAFDS) which is an aviation-specific system exclusively designed for aircraft. It consists of six 20,000-gallon collapsible tanks and four 50,000-gallon tanks which can store up to 320,000 gallons of fuel. The MWSS possesses three TAFDS and can store the equivalent of 960,000 gallons of fuel at a time, which allows simultaneous refueling of 12 aircraft from 12 refueling points. The Helicopter Expedient Refueling System (HERS) is designed for refueling rotary aircraft in support of operations in remote locations. Because of its flexibility and mobility, it is ideally suited to support FARP operations. Versatility, ease of transportability, and rapid deployment are key features of the HERS. The HERS employs 500-gallon collapsible fuel drums, 3,000-gallon tanks; skid mounted 150 GPM pumps and filter-separators. The HERS can be rapidly installed and configured to meet
the specific tactical situation and requirement. Experienced personnel can establish a HERS site within 2 hours.

**CONDITION:** Provided with the requirement, equipment and personnel.

**STANDARD:** To safely meet operational requirements with no injury to personnel or damage to equipment.

**EVENT COMPONENTS:**
1. Review requirement.
2. Deploy the TAFDS, as required
3. Deploy HERS, as required.
4. Deploy MK970, as required.
5. Produce reports, as required.
6. Recover system, as required.

**PREREQUISITE EVENTS:** AOPS-FUEL-3001

**RELATED EVENTS:**

**REFERENCES:**
1. ATP 4-11 Army Motor Transport Operations
2. MCWP 4-11.6 Petroleum and Water Logistics Operations
3. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
4. NAVAIR 06-5-502 Aircraft Refueling For Shore Activities
5. NAVMC DIR 5100.8_ Marine Corps Occupational Safety and Health (OSH) Program Manual
6. NAVSEA OP 5 Vol 1 Ammunition and Explosives/Ashore Safety Regulations of Handling, Storage, Production, Renovation and Shipping
7. NAVSEA OP 5 Vol 2 Ammunition & Explosives Ashore Safety Regulation
10. TM 08089B-01/1A Operators Manual for Semitrailer, Tank: 5,000 Gallon Fuel Dispensing, Under/Overwing Aircraft (MK970)
11. TM 11165A-OR System Operational Manual for Truck, Tractor, 7-Ton, W/O Winch, MK31
12. TM 3835-OI/1_ Marine Corps Tactical Fuel Systems
13. TM 5-2330-356-14&P Semi-Trailer Tank, 5000

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17933 POL Training Area

**EQUIPMENT:** Material Handling Equipment, Bulk fuel equipment, Utilities equipment, Motor Transport equipment, Tactical communications equipment, PPE.

**AOPS-FUEL-3003:** Conduct mobile fueling operations

**SUPPORTED MET(S):**
MCT 4.6.3 MCT 5.3.3.3
EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Each MWSS rates 12 MK970 refueler trailers for a total mobile storage and distribution capability of 60,000 gallons. The MK970 can be used to either fuel or defuel aircraft. The MK970 is ideally suited to support FOB or FARP operations over smooth terrain. Semitrailer refueler operators operate and maintain the MK31 tactical tractors and the MK970 Semitrailer refuelers. Marines with NMOS 3534 are trained to conduct fueling and defueling operations for all aviation and ground assets.

CONDITION: Provided with the requirement, equipment and personnel.

STANDARD: To safely meet operational requirements with no injury to personnel or damage to equipment.

EVENT COMPONENTS:
1. Operate semi-trailer refueler on road.
2. Transport hazardous cargo.
3. Operate semi-trailer refueler off road.
4. Re-circulate semi-trailer refueler.
5. Obtain fuel sample for testing.
6. Refuel ground equipment.
7. Troubleshoot semi-trailer refueler.
8. Perform emergency shutdown procedures.
9. Refuel aircraft.
10. Maintain fuel logbook.
11. Operate semi-trailer refueler under unusual conditions.
12. Operate semi-trailer refueler in administrative conditions.
13. Operate semi-trailer refueler under limited vision conditions.
14. Conduct de-fueling operations.
15. Perform semi-trailer coupling procedures.

PREREQUISITE EVENTS: AOPS-OPS-6002

CHAINED EVENTS: MCMT-OPER-3005

RELATED EVENTS:
1390-XENG-2008  1391-XENG-1005  1391-XENG-2020
3531-OPER-2202  3531-OPER-2215  3534-OPER-2001

REFERENCES:
1. ATP 4-11 Army Motor Transport Operations
2. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
3. NAVAIR 06-5-502 Aircraft Refueling For Shore Activities
4. NAVMC DIR 5100.8 Marine Corps Occupational Safety and Health (OSH) Program Manual
5. NAVSEA OP 5 Vol 1 Ammunition and Explosives/Ashore Safety Regulations of Handling, Storage, Production, Renovation and Shipping
6. NAVSEA OP 5 VOL 2 Ammunition & Explosives Ashore Safety Regulation
7. TC 21-305-20 Manual for the Wheeled Vehicle Operator
8. TM 1165A-OR System Operational Manual for Truck, Tractor, 7-Ton, W/O Winch, MK31
9. TM 5-2330-356-14&P Semi-Trailer Tank, 5000
SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

ENGR-CMOB-3001: Construct demolition obstacles

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Employ expedient anti-personnel devices and explosive hazards as explosive obstacles.

CONDITION: Given an operations order, personnel, demolitions material, engineer equipment, and while wearing fighting load.

STANDARD: To support the defensive concept of operations.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Prepare site.
3. Build the explosive obstacle.
4. Submit required reports.

RELATED EVENTS:
1302-CMOB-1001  1302-CMOB-1003  1302-DEMO-1001
1302-DEMO-1002  1371-CMOB-1003  1371-CMOB-2001
1371-CMOB-2002  1371-DEMO-1001

REFERENCES:
1. MCWP 3-17.5 Combined Arms Obstacle Integration
2. UNIT SOP Unit's Standing Operating Procedures
3. MCRP 3-17.2D Explosive Hazard Operations
4. MCRP 3-17.7L Explosives and Demolitions
5. MCRP 3-17A Engineering Field Data
6. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
7. MCWP 3-17 Engineering Operations
8. MCWP 3-17.4 Engineer Reconnaissance
9. MCWP 3-31.2 Mine Warfare
10. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
11. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M023 Charge, Demolition Block M112 1-1/4</td>
<td>10 charges per Team</td>
</tr>
<tr>
<td>M030 Charge, Demolition Block TNT 1/4-Pou</td>
<td>4 charges per Team</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>4 blasting caps per Team</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>4 blasting caps per Team</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>1000 FT per Team</td>
</tr>
</tbody>
</table>
ML03 Firing Device, Demolition Multi-Purp 4 primers per Team

**RANGE/TRAINING AREA:** Facility Code 17830 Light Demolition Range

**EQUIPMENT:** PPE

**UNITS/PERSOENNEL:** Range Safety Officer, Corpsman.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

---

**ENGRCMOB-3002:** Construct field expedient obstacles

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 3 months

**DESCRIPTION:** Construct field expedient obstacles tie into existing natural or other man made obstacles so enemy movement/maneuvers are fixed, turned, blocked or disrupted.

**CONDITION:** Given a tactical situation, type of obstacle required, obstacle intent, engineer tools and equipment, Class IV and V supplies, expedient obstacle material, personal protective equipment (PPE), and an area to construct the obstacle.

**STANDARD:** To tie into existing natural or other man made obstacles so enemy movement/maneuvers are fixed, turned, blocked or disrupted in accordance with the concept of operations.

**EVENT COMPONENTS:**
1. Prepare to construct field expedient obstacle(s).
2. Construct log obstacles, (if applicable).
3. Construct an abatis, (if applicable).
4. Construct improvised obstacles, (if applicable).
5. Improve as necessary.

**RELATED EVENTS:**
1302-CMOB-1001  1302-CMOB-1003  1310-ADMN-2002
1316-XENG-1001  1316-XENG-1006  1316-XENG-2002
1345-ADMN-1002  1345-ADMN-2002  1345-HEOP-1004
1371-CMOB-1002  1371-DEMO-1001  1371-EOPS-1002
1371-EOPS-1003
REFERENCES:
1. MCWP 3-17.5 Combined Arms Obstacle Integration
2. MCRP 2-3A Intelligence Preparation of the Battlefield/Battlespace
3. MCRP 3-17.2D Explosive Hazard Operations
4. MCRP 3-17.7L Explosives and Demolitions
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 3-17.4 Engineer Reconnaissance
8. MCWP 3-17.6 Survivability
9. MCWP 3-17.8 Combined Arms Mobility Operations
10. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
11. MCWP 3-35.5 Jungle Operations
12. MCWP 3-35.6 Desert Operations

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>20 charges per Team</td>
<td></td>
</tr>
<tr>
<td>M039 Charge, Demolition Cratering 40-Pound</td>
<td>1 charges per Team</td>
<td></td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>20 blasting caps per Team</td>
<td></td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>20 blasting caps per Team</td>
<td></td>
</tr>
<tr>
<td>M420 Charge, Demolition Shaped M2 Series</td>
<td>1 charges per Team</td>
<td></td>
</tr>
<tr>
<td>M421 Charge, Demolition Shaped M3 Series</td>
<td>1 charges per Team</td>
<td></td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>1000 FT per Team</td>
<td></td>
</tr>
<tr>
<td>M591 Dynamite, Military M1</td>
<td>10 charges per Team</td>
<td></td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>500 FT per Team</td>
<td></td>
</tr>
<tr>
<td>M757 Charge, Assembly Demolition M183 Com</td>
<td>1 charges per Team</td>
<td></td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>20 igniters per Team</td>
<td></td>
</tr>
</tbody>
</table>

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17830 Light Demolition Range

EQUIPMENT: Combat Engineer equipment, tools and kits, Earthmoving equipment.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

ENGR-CMOB-3003: Employ explosive obstacles

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Create an explosive obstacle to turn, block, fix, or disrupt enemy movement or maneuver of personnel or equipment.
CONDITION: Given an operations order, personnel, demolitions material, engineer equipment, and personal protective equipment.

STANDARD: To turn, block, fix, or disrupt the enemy in accordance with the concept of operations and commander's intent.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Prepare site.
3. Build the explosive obstacle.
4. Emplace explosive obstacle.
5. Recover as required.
6. Submit required reports.

RELATED EVENTS:
1302-CMOB-1001 1302-CMOB-1002 1310-ADMN-2002
1310-ADMN-2006 1310-ADMN-2009 1310-ADMN-2010
1310-HEOP-2001 1310-MANT-2002 1345-ADMN-1002
1345-ADMN-2002 1345-HEOP-1003 1345-HEOP-1004
1345-HEOP-1005 1345-HEOP-1006 1345-HEOP-2009
1371-CMOB-1003 1371-CMOB-2001 1371-CMOB-2002
1371-DEMO-1002

REFERENCES:
1. MCWP 3-17.5 Combined Arms Obstacle Integration
2. MCRP 3-17.2D Explosive Hazard Operations
3. MCRP 3-17.7L Explosives and Demolitions
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.4 Engineer Reconnaissance
6. MCWP 3-31.2 Mine Warfare

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J007 Mine, Antipersonnel M18A 1 with Non-2 mines per Team</td>
<td></td>
</tr>
<tr>
<td>L598 Simulator, Explosive Booby Trap Flas 10 Simulator per Team</td>
<td></td>
</tr>
<tr>
<td>M023 Charge, Demolition Block M112 1-1/4 20 charges per Team</td>
<td></td>
</tr>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound 6 charges per Team</td>
<td></td>
</tr>
<tr>
<td>M327 Coupling Base, Firing Device with Pr 10 primers per Team</td>
<td></td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E 1000 FT per Team</td>
<td></td>
</tr>
<tr>
<td>ML03 Firing Device, Demolition Multi-Purp 10 primers per Team</td>
<td></td>
</tr>
</tbody>
</table>

RANGE/TRAINING AREA:
Facility Code 17830 Light Demolition Range
Facility Code 17905 Mine Warfare Area

EQUIPMENT: PPE, Combat engineer equipment, tools and kits

MATERIAL: Class IV material.

UNITS/PERSONNEL: Range Safety Officer, Corpsman.
MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

ENGR-CMOB-3004: Build non-explosive obstacles

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Build non-explosive obstacles to, block, fix, or disrupt the enemy. Typical examples are: Wire, Tank ditches, Log cribs, Steel H beam post obstacles, falling or tumble blocks, Dragon's teeth, hedgehogs, tetrahedrons and non-explosive abatis.

CONDITION: Given a mission, commander's intent, location to emplace the obstacle, task organized personnel and equipment, and resources (Class IV, V, natural terrain, battlefield materials, etc.).

STANDARD: To, block, fix, or disrupt the enemy in accordance with the commander's intent and concept of operations.

EVENT COMPONENTS:
1. Review mission and schematics
2. Determine actual work sequence.
3. Coordinate logistical requirements.
5. Move to obstacle site.
6. Tie obstacles into natural/existing obstacles, as required.
7. Construct/place mobility obstacles (barriers, hedgehogs, ect.), as required.
8. Construct wire obstacles, as required.
9. Construct/place field expedient obstacles (logs, abatis, rubble, ect.), as required.
10. Construct/create phony obstacles, as required.
11. Construct tank ditches, as required.
12. Submit required reports.

RELATED EVENTS:
1302-CMOB-1001 1302-CMOB-1002 1310-ADMN-2009
1316-ADMN-1001 1316-ADMN-1002 1316-ADMN-2001
1316-ADMN-2002 1316-XENG-1001 1316-XENG-1006
1316-XENG-2002 1345-ADMN-2002 1345-HEOP-1003
1345-HEOP-1004 1345-HEOP-1005 1345-HEOP-1006
1345-HEOP-1007 1345-HEOP-2012 1345-MANT-1001
REFERENCES:
1. MCWP 3-17.5 Combined Arms Obstacle Integration
2. MCRP 3-17.7L Explosives and Demolitions
3. MCRP 3-17A Engineering Field Data
4. MCRP 3-17B Engineer Forms and Reports
5. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
6. MCWP 3-1 Ground Combat Operations
7. MCWP 3-17 Engineering Operations
8. MCWP 3-17.1 Combined Arms Gap-Crossing Operations
9. MCWP 3-17.4 Engineer Reconnaissance
10. MCWP 3-17.8 Combined Arms Mobility Operations
11. MCWP 3-31.2 Mine Warfare
12. MCWP 3-33 Military Operations Other Than War (MOOTW)
13. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
14. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>L495 Flare, Surface Trip M49 Series</td>
<td>2 flares per Team</td>
</tr>
<tr>
<td>M032 Charge, Demolition Block TNT 1-Pound</td>
<td>4 charges per Team</td>
</tr>
<tr>
<td>M039 Charge, Demolition Cratering 40-Pound</td>
<td>4 charges per Team</td>
</tr>
<tr>
<td>M130 Cap, Blasting Electric M6</td>
<td>6 blasting caps per Team</td>
</tr>
<tr>
<td>M131 Cap, Blasting Non-Electric M7</td>
<td>6 blasting caps per Team</td>
</tr>
<tr>
<td>M327 Coupling Base, Firing Device with Pr</td>
<td>6 primers per Team</td>
</tr>
<tr>
<td>M421 Charge, Demolition Shaped M3 Series</td>
<td>4 charges per Team</td>
</tr>
<tr>
<td>M456 Cord, Detonating PETN Type I Class E</td>
<td>250 FT per Team</td>
</tr>
<tr>
<td>M591 Dynamite, Military M1</td>
<td>6 charges per Team</td>
</tr>
<tr>
<td>M670 Fuse, Blasting Time M700</td>
<td>125 FT per Team</td>
</tr>
<tr>
<td>M757 Charge, Assembly Demolition M183 Com</td>
<td>2 cases per Team</td>
</tr>
<tr>
<td>ML03 Firing Device, Demolition Multi-Purp</td>
<td>4 primers per Team</td>
</tr>
<tr>
<td>MN08 Igniter, Time Blasting Fuse with Sho</td>
<td>6 igniters per Team</td>
</tr>
<tr>
<td>MN14 Firing Device, Dual Mode MK54</td>
<td>4 detonators per Team</td>
</tr>
<tr>
<td>MN52 MK154 Mod 0</td>
<td>10 igniters per Team</td>
</tr>
</tbody>
</table>

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17830 Light Demolition Range

EQUIPMENT: Combat engineer equipment, tools and kits, MHE and earthmoving equipment.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.
ENGR-EQIP-3001: Provide crane support

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Employ organic crane assets.

CONDITION: Given an operations order, personnel, and engineer equipment.

STANDARD: To support mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Prepare equipment for operation.
3. Move to site.
4. Establish safety zone.
5. Deploy safety measures for equipment.
6. Conduct lift of material.
7. Displace equipment, as required.
8. Submit required reports.

RELATED EVENTS:
1345-ADMN-2002  1345-HEOP-2003
1349-MANT-2002

REFERENCES:
1. Applicable technical references
2. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17420 Maneuver/Training Area, Heavy Forces

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Personnel operating cranes are required to be licensed on the equipment they are operating.

ENGR-EQIP-3002: Provide Material Handling Equipment (MHE) support

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 6 months
DESCRIPTION: Employ organic material handling equipment assets, to include: KALMAR RTCH, TRAMs, Extended Boom Fork Lift, and MMV forklifts, MTL.

CONDITION: Given an operations order, personnel, and engineer equipment.

STANDARD: To support mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Prepare equipment for operation.
3. Move to site.
4. Establish safety zone.
5. Deploy safety measures for equipment.
6. Conduct lift of material.
7. Displace equipment as required.
8. Submit required reports.

RELATED EVENTS:
1345-ADMN-1002 1345-ADMN-2002 1345-HEOP-1002

REFERENCES:
1. Applicable TMs
2. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17420 Maneuver/Training Area, Heavy Forces

ENGR-EQIP-3003: Provide earthmoving equipment support

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4 MCT 6.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Provide earth moving equipment support to support the mission utilizing the required type(s) of engineer equipment and personnel.

CONDITION: Given an operations order, personnel, and engineer equipment.

STANDARD: To support mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Prepare equipment for operation.
3. Move to site.
4. Establish safety zone.
5. Deploy safety measures for equipment.
6. Conduct lift of material.
7. Displace equipment as required.
8. Submit required reports.

RELATED EVENTS:
1345-ADMN-1002  1345-HEOP-1003  1345-HEOP-1004
1345-HEOP-1005  1345-HEOP-1006  1345-HEOP-1007
1345-HEOP-2008  1345-HEOP-2009  1345-MANT-1001

REFERENCES:
1. Applicable technical references
2. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17420 Maneuver/Training Area, Heavy Forces

ENGR-EQIP-3004: Conduct runway sweeping operations

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Runway sweeping services consist of cleaning runways, taxiways, expeditionary airfields, and other stabilized areas of debris that can cause Foreign Object Damage (FOD) to aircraft.

CONDITION: While in support of aircraft operations, provided with a runway sweeper and runway areas with debris.

STANDARD: To safely meet operational requirements with no injury to personnel or damage to the equipment.

EVENT COMPONENTS:
1. Perform pre-operational checks and services.
2. Establish communications with ground control.
3. Sweep areas as directed.
4. Report completion to ground control.
5. Perform post operational checks and services.
6. Submit required reports.

RELATED EVENTS:
1345-HEOP-2010  1345-MANT-1001  1345-MANT-2001
REFERENCES:
1. FM 21-60 Visual Signals
2. MCWP 3-21.1 Aviation Ground Support
3. TM 09199B-OR Sweeper, Rotary, Vehicle Mounting
5. TM 4700-15/1 Ground Equipment Record Procedures

SUPPORT REQUIREMENTS:

   EQUIPMENT: Runway sweeper.

ENGR-HORZ-3001: Conduct dust abatement

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Employ a dust palliative with the assistance of organic engineer assets.

CONDITION: Given an operations order, personnel, engineer equipment, and materials.

STANDARD: To mitigate the effects of wind-blown dust on combatants and combat equipment that meets or exceeds commander's intent and supports the concept of operations.

EVENT COMPONENTS:
1. Coordinate with supported unit, as required.
2. Determine soil composition.
3. Determine dust palliative product requirements.
4. Determine dust palliative product application equipment requirements.
5. Determine dust palliative application guidance (Helipads/Roads/Base Camps).
6. Prepare equipment for operation.
7. Move to site.
8. Don PPE, as required.
9. Incorporate Admix Methods (Grade/Spray/Blend/Compact/Spray), as required.
10. Clean and maintain equipment after operation.
11. Monitor cure time, as required.

RELATED EVENTS:
1310-ADMN-2002  1310-ADMN-2009  1310-ADMN-2010
1310-HORZ-2003  1310-MANT-2002  1345-HEOP-1007
1349-MANT-2002

REFERENCES:
1. Dust Abatement Handbook
2. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the
Theater of Operations - Road Design
3. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
4. MCRP 3-17.7I Earthmoving Operations
5. MCWP 3-17 Engineering Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17918 Road/Airfield Construction Training Site

EQUIPMENT: Engineer Earthmoving and Material Handling equipment

ENGR-MANT-3001: Maintain engineer equipment

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Maintain engineer equipment by conducting preventive and corrective maintenance on engineer equipment using unit assigned maintenance levels.

CONDITION: With equipment, tools, repair parts, supplies, personnel and references.

STANDARD: To sustain equipment in an operational status at or above unit's readiness requirements.

EVENT COMPONENTS:
1. Monitor equipment readiness.
2. Conduct reconciliation.
3. Assign tasks.
5. Manage maintenance programs.
6. Submit required reports.

RELATED EVENTS:
1316-ADMN-1002  1316-ADMN-1003  1316-ADMN-2001
1316-ADMN-2002  1316-MANT-1001  1316-MANT-1002
1316-MANT-1004  1316-XENG-1001  1316-XENG-1002
1316-XENG-2004  1316-XENG-2005  1341-ADMN-1001
1341-ADMN-1002  1341-ADMN-2001  1341-ADMN-2002
1341-ADMN-2003  1341-ADMN-2004  1341-MANT-1001
1341-MANT-1002  1341-MANT-1003  1341-MANT-1004
1341-MANT-1005  1341-MANT-1006  1341-MANT-1007
1341-MANT-1008  1341-MANT-1009  1341-MANT-1010
1341-MANT-2009  1341-MANT-2010  1345-ADMN-1002
REFERENCES:
1. EMC Electric Motor Controls by American Technical Publishers, Inc.
2. DoDI 6055.1 DoD Safety and Occupational Health (SOH) Program
3. MCBUL 3000 Marine Corps Automated Readiness Evaluation System (MARES) Equipment
4. MCO 4733.1 Marine Corps Test, Measurement, and Diagnostics Equipment (TMDE) Calibration and Maintenance Program (CAMP)
5. MCO 4790.18 Corrosion Prevention and Control (CPAC) Program
6. MCO 5100.29 Marine Corps Safety Program
7. MCO P4790.2 MIMMS Field Procedures Manual
8. SOP Standard Operating Procedures (SOP)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer tools, sets, kits.

ENGR-MANT-3002: Employ maintenance team

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

CONDITION: With equipment, tools, repair parts, supplies, personnel and references.

STANDARD: To ensure equipment is in operational condition to support mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Determine personnel, tool, and equipment requirement(s).
3. Determine maintenance support requirement.
5. Repair equipment as required.
6. Recover and evacuate as required.
7. Submit required reports.

RELATED EVENTS:
1310-MANT-2002 1341-ADMN-1001 1341-ADMN-1002
1341-ADMN-2001 1341-ADMN-2002 1341-MANT-1002
1341-MANT-2006 1341-MANT-2009 1341-MANT-2010
1349-MANT-2002
REFERENCES:
1. MCO 3000.11 Ground Equipment Condition and Supply Materiel Readiness Reporting (MRR) Policy
2. MCO 4610.35 USMC Equipment Characteristics File
3. MCO 4731.1 Oil Analysis Program for Ground Equipment
4. MCO 4733.1 Marine Corps Test, Measurement, and Diagnostics Equipment (TMDE) Calibration and Maintenance Program (CAMP)
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 4-11.4 Maintenance Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17420 Maneuver/Training Area, Heavy Forces

EQUIPMENT: Maintenance Contact vehicle and equipment, PPE

ENGR-MANT-3003: Maintain tactical power distribution system

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Maintain equipment to ensure the safe distribution of electrical power to meet mission requirements.

CONDITION: With a Preventive Maintenance Checks and Service (PMCS) Schedule, testing equipment, tools, and personnel.

STANDARD: To ensure the equipment is safe and operational.

EVENT COMPONENTS:
1. Review PMCS schedule, as required.
2. Induct equipment into maintenance cycle.
3. Conduct preventive maintenance, as required.
4. Conduct corrective maintenance, as required.
5. Complete modifications, as required.
6. Ground system, as required.
7. Electrically energize system, as required.
8. Diagnose malfunction, as required.
9. Requisition repair parts, as required.
10. Install repair parts, as required.
11. Test system.
12. Complete quality control requirements.
13. Complete administrative maintenance requirements.

RELATED EVENTS:
1141-ADMN-1002  1141-ADMN-1006  1141-ADMN-1008
1141-ADMN-1010  1141-ADMN-1011  1141-ADMN-2073
1141-MANT-1101  1141-MANT-1224  1141-MANT-1324
1141-MANT-1424  1141-MANT-2191  1141-MANT-2244
1141-MANT-2344  1141-MANT-2444  1141-XENG-1601
1141-XENG-1703  1142-ADMN-1006  1142-ADMN-1008
1142-ADMN-1010  1142-ADMN-1011  1142-ADMN-2073
1142-MANT-1101  1142-MANT-1106  1142-MANT-1108
1142-MANT-1109  1142-MANT-1142  1142-MANT-1351
1142-MANT-1451  1142-MANT-1466  1142-MANT-1467
1142-MANT-1468  1142-MANT-1469  1142-MANT-1493
1142-MANT-2191  1142-MANT-2308  1142-MANT-2309
1142-MANT-2318  1142-MANT-2354  1142-MANT-2365
1142-MANT-2408  1142-MANT-2409

REFERENCES:
1. MCO P4790.2  MIMMS Field Procedures Manual
2. MCRP 3-17.7K  Theater of Operations Electrical Systems
3. TM 12359A-OD  Principal Technical Characteristics of Expeditionary Power Systems Equipment
4. TM 4700-15/1  Ground Equipment Record Procedures
5. TM 9406-15_  Grounding Procedures for Electromagnetic Interference Control and Safety

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:  Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT:  Multi-meter, tools, power generation equipment, PPE.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:  This task includes conducting maintenance on generators, MEPDIS and MEPDIS-R.

ENGR-MANT-3004:  Maintain water purification equipment

SUPPORTED MET(S):  MCT 5.3.3.3

EVALUATION-CODED:  YES  SUSTAINMENT INTERVAL:  6 months

DESCRIPTION:  Manage and conduct preventive and corrective maintenance on water purification equipment to meet mission requirements and commander's intent.

CONDITION:  With equipment, tools, repair parts, supplies, personnel and the references.

STANDARD:  To sustain equipment in an operational status at or above unit's readiness requirements.

EVENT COMPONENTS:
1. Conduct operational checks and services.
2. Conduct Limited Technical Inspections (LTI).
3. Open service request (GCSS-MC).
4. Order repair parts.
5. Install repair parts.
6. Complete modifications, as required.
7. Perform operational checks.
8. Complete quality control requirements.
9. Complete administrative maintenance requirements.

RELATED EVENTS:
1142-ADMN-2061  1142-ADMN-2073  1142-MANT-1101
1142-MANT-1106  1142-MANT-1108  1142-MANT-1109
1142-MANT-1382  1142-MANT-1493  1142-MANT-2191
1142-MANT-2383  1171-ADMN-1006  1171-ADMN-1007
1171-ADMN-1008  1171-ADMN-1010  1171-ADMN-1011
1171-ADMN-2071  1171-ADMN-2072  1171-ADMN-2073
1171-MANT-1233  1171-MANT-1248  1171-MANT-1271
1171-MANT-1272  1171-MANT-1274  1171-MANT-1277
1171-MANT-1278  1171-MANT-1279  1171-MANT-1280
1171-MANT-1282  1171-MANT-1284  1171-MANT-1285
1171-MANT-1333  1171-MANT-1348  1171-MANT-1371
1171-MANT-1372  1171-MANT-1374  1171-MANT-1379
1171-MANT-1382  1171-MANT-1433  1171-MANT-1441
1171-MANT-1448  1171-MANT-1471  1171-MANT-1472
1171-MANT-1474  1171-MANT-1478  1171-MANT-1482
1171-MANT-1484  1171-MANT-1485  1171-MANT-2101
1171-MANT-2191  1171-MANT-2396  1171-MANT-2397

REFERENCES:
1. GCSS-MC Aid Global Combat Support System—Marine Corps Job Aid
3. TM 09476B-13/1 Operator, Unit, and Direct Support Maintenance Manual for Hypochlorination Unit
4. TM 09476B-23P/2 Unit and Direct Support Maintenance Repair Parts and Special Tools List for Hypochlorination Unit
5. TM 10209-10/1 Use and Care of Hand Tools and Measuring Tools
6. TM 4700-15/1 Ground Equipment Record Procedures

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17924 Water Supply Training Area

EQUIPMENT: Utilities equipment, Engineer Material Handling Equipment, appropriate tools and kits.

MATERIAL: POLs as required.

ENGR-MANT-3005: Maintain hygiene equipment

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months
DESCRIPTION: Manage and conduct preventive and corrective maintenance on water support equipment to meet mission requirements and commander's intent.

CONDITION: With equipment, tools, repair parts, supplies, personnel and references.

STANDARD: To sustain equipment in an operational status at or above unit's readiness requirements.

EVENT COMPONENTS:
1. Conduct operational checks and services.
2. Conduct Limited Technical Inspection (LTI).
3. Open service request (GCSS-MC).
4. Order Repair Parts.
5. Install Repair Parts.
6. Complete modifications, as required.
7. Perform operational checks.
8. Complete quality control requirements.
9. Complete maintenance administrative requirements.

RELATED EVENTS:
1142-MANT-1101 1142-MANT-1106 1142-MANT-1108
1142-MANT-1109 1142-MANT-1331 1142-MANT-1392
1142-MANT-1493 1142-MANT-2332 1142-MANT-2338
1142-MANT-2438 1171-ADMN-1006 1171-ADMN-1007
1171-ADMN-1008 1171-ADMN-1010 1171-ADMN-1011
1171-ADMN-2071 1171-ADMN-2072 1171-ADMN-2073
1171-MANT-1231 1171-MANT-1232 1171-MANT-1241
1171-MANT-1277 1171-MANT-1278 1171-MANT-1331
1171-MANT-1332 1171-MANT-1431 1171-MANT-1432
1171-MANT-1477 1171-MANT-1478 1171-MANT-2101
1171-MANT-2191 1171-MANT-2338 1171-MANT-2395
1171-MANT-2396 1171-MANT-2438

REFERENCES:
1. FM 10-52 Water Supply in Theaters of Operation
2. FM 10-52-1 Water Supply Point Equipment and Operations
3. MCWP 4-11.4 Maintenance Operations
4. MCWP 4-11.6 Petroleum and Water Logistics Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17924 Water Supply Training Area

EQUIPMENT: Utilities equipment, Engineer Material Handling Equipment, appropriate tools and kits.

MATERIAL: Appropriate POLs as required.

ENGR-MANT-3006: Maintain refrigeration system(s)
SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Conduct maintenance in order to sustain the refrigeration system(s) in operable status.

CONDITION: With equipment, tools, repair parts, supplies, personnel and references.

STANDARD: To sustain equipment in an operational status at or above units readiness requirements.

EVENT COMPONENTS:
1. Conduct operational checks and services.
2. Conduct Limited Technical Inspection (LTI).
3. Open service request (GCSS-MC).
4. Order Repair Parts.
5. Install Repair Parts.
6. Complete Modifications as required.
7. Perform Operational Checks.
8. Complete quality control requirements.
9. Complete maintenance administrative requirements.

RELATED EVENTS:
1142-ADMN-1006 1142-ADMN-1008 1142-ADMN-1010
1142-ADMN-1011 1142-ADMN-2073 1142-MANT-1101
1142-MANT-1106 1142-MANT-1108 1142-MANT-1109
1142-MANT-1392 1142-MANT-1493 1142-MANT-2191
1142-MANT-2327 1161-ADMN-1006 1161-ADMN-1008
1161-ADMN-1010 1161-ADMN-1011 1161-ADMN-2073
1161-MANT-1101 1161-MANT-1102 1161-MANT-1103
1161-MANT-1104 1161-MANT-1106 1161-MANT-1107
1161-MANT-1108 1161-MANT-1109 1161-MANT-1235
1161-MANT-1335 1161-MANT-1402 1161-MANT-1404
1161-MANT-2191

REFERENCES:
1. 40 CFR 82 Chapter 40, Code of Federal Regulations, Part Number 82 (Protection of Stratospheric Ozone)
2. 42 USC 85 VI 7671 Title 42, United States Code, Chapter 85, Subchapter VI, Section 7671 (Ozone Protection)
3. MCO 5090.1 Chlorofluorocarbons (CFC's) and Halons
4. MCWP 4-11.4 Maintenance Operations
5. TM 12359A-0D Principal Technical Characteristics of Expeditionary Power Systems Equipment

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer Material Handling Equipment, power generation equipment, tools and kits.
ENGR-MANT-3007: Maintain Environmental Control Units (ECU)

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Conduct maintenance in order to sustain the ECU(s) in operable status.

CONDITION: With equipment, tools, repair parts, supplies, personnel and references.

STANDARD: To sustain equipment in an operational status at or above unit's readiness requirements.

EVENT COMPONENTS:
1. Conduct operational checks and services.
2. Conduct Limited Technical Inspection (LTI).
3. Open service request (GCSS-MC).
4. Order Repair Parts.
5. Install Repair Parts.
6. Complete Modifications, as required.
7. Perform Operational Checks.
8. Complete quality control requirements.
9. Return administrative maintenance requirements.

RELATED EVENTS:
1142-ADMN-1006  1142-ADMN-1008  1142-ADMN-1010
1142-ADMN-1011  1142-ADMN-2073  1142-MANT-1101
1142-MANT-1106  1142-MANT-1108  1142-MANT-1109
1142-MANT-2191  1142-MANT-2311  1161-ADMN-1006
1161-ADMN-1008  1161-ADMN-1010  1161-ADMN-1011
1161-ADMN-2015  1161-ADMN-2016  1161-ADMN-2073
1161-MANT-1101  1161-MANT-1102  1161-MANT-1103
1161-MANT-1104  1161-MANT-1106  1161-MANT-1107
1161-MANT-1108  1161-MANT-1109  1161-MANT-1211
1161-MANT-1218  1161-MANT-1311  1161-MANT-1318
1161-MANT-1401  1161-MANT-1403  1161-MANT-2191

REFERENCES:
1. 40 CFR 82 Chapter 40, Code of Federal Regulations, Part Number 82 (Protection of Stratospheric Ozone)
2. 42 USC 85 VI 7671 Title 42, United States Code, Chapter 85, Subchapter VI, Section 7671 (Ozone Protection)
3. MCO 5090.1 Chlorofluorocarbons (CFC's) and Halons
4. MCWP 4-11.4 Maintenance Operations
5. TM 12359A-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces
**EQUIPMENT:** Engineer Material Handling equipment, Utilities equipment, tools and kits

**ENGR-RECN-3001:** Assess damage to airfield surfaces

**SUPPORTED MET(S):**
- MCT 4.6.3
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Surface defects can usually be attributed to excessive loads, inferior surfacing material, poor sub-grade or base conditions, inadequate drainage, or a combination of these conditions. Surface inspections should include a complete inventory of the current pavement defects. Careful investigation of the causes of the defects will allow for timely maintenance to prevent the pavement defects from requiring repair.

**CONDITION:** Given a tactical situation, a forward operating base to be repaired, an operations order, commander's intent, personnel, equipment, and references.

**STANDARD:** To restore the forward operating base to optimum operational capability to reestablish surface roughness criteria in order to maintain serviceability of the airfield surfaces.

**EVENT COMPONENTS:**
1. Coordinate with supported unit.
2. Coordinate with supporting unit (EOD).
3. Determine personnel, tool, and equipment requirement(s).
4. Proceed to assigned objective.
5. Reconnoiter damaged airfield surface, as required.
6. Determine the type and extent of repair required.
7. Determine material required to complete the repair.
8. Issue the repair order.
9. Inspect completed repair.
10. Submit appropriate engineer reports.

**RELATED EVENTS:**
- 1302-EOPS-1004
- 1302-EOPS-1007
- 1302-EOPS-1009
- 1371-EOPS-2004
- 1371-EOPS-2006
- 1371-EOPS-2007
- 1371-EOPS-2010
- 1371-EOPS-2011
- 1371-EOPS-2012

**REFERENCES:**
1. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
2. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
3. MCRP 3-17B Engineer Forms and Reports
4. MCWP 3-17 Engineering Operations
5. MCWP 3-21.1 Aviation Ground Support

**SUPPORT REQUIREMENTS:**
**RANGE/TRAINING AREA:** Facility Code 17918 Road/Airfield Construction

**Training Site**

**EQUIPMENT:** Engineer equipment, PPE.

**UNITS/PERS**ONNEL: EOD personnel.

**ENGR-RECN-3002:** Assess damage to airfield facilities and structures

**SUPPORTED MET(S):**
MCT 4.6.3  MCT 5.3.3.3  MCT 6.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** Airfield facilities and structures used by coalition forces may be of sub-standard construction practices/materials or may have degraded over time therefore periodic inspections should be performed to ensure structural integrity and safety of the occupants.

**CONDITION:** Given an operations order, an airfield facility or structure to be repaired, task organized equipment and personnel, resources, and references.

**STANDARD:** To restore airfield facilities and structures to operating conditions in accordance with the commander's intent and concept of operations.

**EVENT COMPONENTS:**
1. Coordinate with supported unit.
2. Determine personnel, tool, and equipment requirement(s).
3. Proceed to assigned objective.
4. Reconnoiter damaged airfield facilities, as required.
5. Determine the type and extent of repair required.
6. Determine material required to complete the repair.
7. Submit appropriate engineer reports.

**RELATED EVENTS:**
1302-EOPS-1004  1302-EOPS-1009  1361-DRAF-1001
1361-DRAF-1003  1361-SRVY-1007  1361-SRVY-2003
1361-SRVY-2004  1361-SRVY-2005  1371-EOPS-2004
1371-EOPS-2006  1371-EOPS-2007  1371-EOPS-2010
1371-EOPS-2011  1371-EOPS-2012

**REFERENCES:**
1. MCRP 3-17.7A Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
2. MCRP 3-17.7B Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
3. MCRP 3-17B Engineer Forms and Reports
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.7 General Engineering
6. MCWP 3-21.1 Aviation Ground Support
SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17918 Road/Airfield Construction Training Site

EQUIPMENT: Engineer equipment, PPE

UNITS/PERSONNEL: EOD personnel

ENGR-RECN-3003: Survey site for construction

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Survey site for construction to allow critical planning for construction and or operations in support of the MAGTF.

CONDITION: Provided a construction mission, a map, a scientific calculator, task organized personnel, equipment, and references.

STANDARD: To support commander's intent, mission requirements and concept of operations.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Move to survey site.
3. Reconnoiter project site, as required.
4. Submit required reports.

RELATED EVENTS:
1302-HORZ-1001 1302-PLAN-1001 1302-RECN-1001
1302-SURV-1001 1302-VERT-1001 1361-SRVY-1001
1361-SRVY-1002 1361-SRVY-1003 1361-SRVY-1004
1361-SRVY-1005 1361-SRVY-1006 1361-SRVY-1007
1361-SRVY-1008 1361-SRVY-1009 1361-SRVY-1010
1361-SRVY-1011 1361-SRVY-1012 1361-SRVY-2002
1371-RECN-1001 1371-RECN-2001

REFERENCES:
1. MCRP 3-17.7C Carpentry
2. MCRP 3-17.7D Concrete and Masonry
3. MCRP 3-17A Engineering Field Data
4. MCWP 3-17.4 Engineer Reconnaissance
5. NAVEDTRA 10696 Engineer Aid 3
6. TM 5-581B Construction Drafting
7. TM 5-704 Construction Print Reading in the Field

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

ENGR-RECN-3004: Conduct cache sweep

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: Conduct cache sweep to detect suspected caches of weapons/ordnance, to include: IEDs, mines, ammunition, weapons, and explosives.

CONDITION: Provided a mission order, detection equipment, personnel, engineer equipment, Class IV, personal protective equipment, and references.

STANDARD: To locate, mark, and reduce all discovered ordnance, munitions, mines, ammunition, weapons, and explosives per commander's intent and mission requirement.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Determine detector to be used.
3. Prepare equipment for operation.
4. Move to site.
5. Establish safety zone.
6. Conduct area sweep.
7. Locate and mark the object.
8. Identify the object.
9. Destroy object(s), as required.
10. Proof area to ensure explosive object has been properly neutralized.
11. Submit required reports.

RELATED EVENTS:
1302-DEMO-1004  1302-MOBIL-1002  1302-MOBIL-1003
1302-MOBIL-1009  1302-RECN-1001  1371-MOBIL-1002
1371-MOBIL-1003  1371-MOBIL-2018  1371-MOBIL-2020
1371-MOBIL-2021  1371-MOBIL-2022

REFERENCES:
1. MCIP 3-17.01 Combined Arms Improvised Explosive Device Defeat Operations
2. MCRP 3-17.2 Multiservice Procedures for Explosive Ordnance Disposal (NTTP) in a Joint Environment
3. MCRP 3-17.2D Explosive Hazard Operations
4. MCRP 3-17.7L Explosives and Demolitions
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 3-17 Engineering Operations

SUPPORT REQUIREMENTS:

<table>
<thead>
<tr>
<th>ORDNANCE</th>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3-182  Enclosure (1)
M032 Charge, Demolition Block TNT 1-Pound 20 charges per Team
M039 Charge, Demolition Cratering 40-Pound 1 charges per Team
M130 Cap, Blasting Electric M6 20 blasting caps per Team
M131 Cap, Blasting Non-Electric M7 10 blasting caps per Team
M421 Charge, Demolition Shaped M3 Series 1 charges per Team
M456 Cord, Detonating PETN Type I Class E 1000 FT per Team
M591 Dynamite, Military M1 10 charges per Team
M670 Fuse, Blasting Time M700 500 FT per Team
M757 Charge, Assembly Demolition M183 Com 1 charges per Team
MN08 Igniter, Time Blasting Fuse with Sho 20 igniters per Team

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17830 Light Demolition Range

EQUIPMENT: Combat engineer equipment, tools and kits.

UNITS/PERSOONEL: Range Safety Officer, Corpsman, EOD personnel, Weapons Intelligence Team.

OTHER SUPPORT REQUIREMENTS: ORM

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

ENGR-RECN-3005: Conduct obstacle reconnaissance

SUPPORTED MET(S):
MCT 5.3.3.3
MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Conduct obstacle reconnaissance to focus on answering obstacle intelligence IR-obstacle location, width, and depth; obstacle composition (wire, mines by type, and so forth.); soil conditions; locations of lanes and bypasses; and the location of enemy direct-fire systems.

CONDITION: Provided a mission, a tactical scenario, blank engineer reconnaissance forms (DA Form 1711-R), personnel, equipment, and references.

STANDARD: To identify obstacles; identify suitable bypasses; and record any other relevant engineer information on the appropriate reconnaissance forms per the references. All information will be transferred to a map overlay using correct engineer/tactical symbols.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Review the map of the route to be taken.
3. Proceed to assigned objective.
4. Determine obstacle type and location.
5. Reconnoiter obstacle, as required.
6. Identify suitable bypasses.
7. Submit required reports.

RELATED EVENTS:
1302-RECN-1001  1371-RECN-1001  1371-RECN-2001

REFERENCES:
1. GTA 05-07-013 Bridge Classification Card (2006)
2. GTA 5-2-5 Engineer Reconnaissance
3. JP 3-34 Joint Engineer Operations
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
7. MCWP 3-1 Ground Combat Operations
8. MCWP 3-17 Engineering Operations
9. MCWP 3-17.4 Engineer Reconnaissance

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17920 Panel Bridge Area

EQUIPMENT: Motor Transport equipment, Range finder, Tape measure, Compass, Protractor, Camera, Maps.

ENGR-RECN-3006: Conduct bridge reconnaissance

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Conduct bridge reconnaissance to collect detailed technical information on selected bridges. This assessment provides the basic Military Load Classification (MLC) information necessary for the commander to plan for the use of the bridge.

CONDITION: Provided a mission, a tactical scenario, blank engineer reconnaissance forms (DA Form 1711-R), personnel, equipment, and references.

STANDARD: To classify bridges, identify obstacles, identify suitable bypasses, and record any other relevant engineer information on the appropriate reconnaissance forms per the references. All information will be transferred to a map overlay using correct engineer/tactical symbols.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Review the map of the route to be taken.
3. Proceed to assigned objective.
4. Reconnoiter bridge.
5. Classify bridge(s), as required.
6. Identify suitable bypasses.
7. Submit required reports.

RELATED EVENTS:
1302-RECN-1001 1371-RECN-1001 1371-RECN-2001

REFERENCES:
1. GTA 05-07-013 Rapid Field Classification Booklet
2. GTA 5-2-5 Engineer Reconnaissance
3. JP 3-34 Joint Engineer Operations
4. MCRP 3-17.1B Military Non-Standard Fixed Bridging
5. MCRP 3-17A Engineering Field Data
6. MCRP 3-17B Engineer Forms and Reports
7. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
8. MCWP 3-1 Ground Combat Operations
9. MCWP 3-17 Engineering Operations
10. MCWP 3-17.3 MAGTF Breaching Operations
11. MCWP 3-17.4 Engineer Reconnaissance
12. MCWP 3-17.5 Combined Arms Countermobility Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:
Facility Code 17410 Maneuver/Training Area, Light Forces
Facility Code 17920 Panel Bridge Area

ENGR-RECN-3007: Conduct road reconnaissance

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Conduct road reconnaissance to collect detailed technical information on the engineering characteristics and trafficability of a road section within a route.

CONDITION: Provided a mission, a tactical scenario, blank engineer reconnaissance forms (DA Form 1711-R), personnel, equipment, and references.

STANDARD: To classify roads, routes; identify obstacles; identify suitable bypasses; and record any other relevant engineer information on the appropriate reconnaissance forms per the references. All information will be transferred to a map overlay using correct engineer/tactical symbols.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Review the map of the route to be taken.
3. Proceed to assigned objective.
4. Reconnoiter road(s) or route(s), as required.
5. Classify road(s), as required.
6. Classify route(s), as required.
7. Identify suitable bypasses.
8. Submit required reports.

RELATED EVENTS:
1302-RECN-1001 1371-RECN-1001 1371-RECN-2001

REFERENCES:
1. MCWP 3-17.5 Combined Arms Obstacle Integration
2. GTA 5-2-5 Engineer Reconnaissance
3. JP 3-34 Joint Engineer Operations
4. MCRP 3-17A Engineering Field Data
5. MCRP 3-17B Engineer Forms and Reports
6. MCWP 2-15.3 Ground Reconnaissance Operations (FMFM 2-2)
7. MCWP 3-17 Engineering Operations
8. MCWP 3-17.4 Engineer Reconnaissance
9. MCWP 3-17.8 Combined Arms Mobility Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

ENGR-SURV-3001: Construct vehicle survivability position/revetment

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Construct vehicle survivability position/revetment to increase vehicle survivability.

CONDITION: Given an operations order, personnel, engineer equipment, and materials.

STANDARD: To build vehicle survivability positions/revets that meets or exceeds the mission requirement and supports the concept of operation in accordance with the commander's intent.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Design position required.
3. Determine material required.
4. Calculate time required for construction.
5. Prepare equipment for operation.
6. Move to site.
7. Establish safety zone.
8. Construct revetment, as required.
9. Displace equipment as required.
10. Submit required reports.

**RELATED EVENTS:**

- 1316-XENG-2005  1345-HEOP-1004  1345-HEOP-1005

**REFERENCES:**

1. JP 3-34 Engineer Doctrine for Joint Operations
2. GTA 05-08-001 Survivability Positions
3. MCRP 3-17.7C Carpentry
4. MCRP 3-17A Engineering Field Data
5. MCWP 3-17 Engineering Operations
6. MCWP 3-17.5 Combined Arms Countermobility Operations
7. MCWP 3-17.6 Survivability
8. MCWP 3-33 Military Operations Other Than War (MOOTW)
9. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
10. MCWP 3-41.1 Rear Area Operations
11. MCWP 4-11 Tactical-Level Logistics

**SUPPORT REQUIREMENTS:**

- **RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces
- **EQUIPMENT:** Engineer equipment.
- **MATERIAL:** Map, Compass, Protractor, Overlay sheets, Reconnaissance reports, Class IV materials, as required.

**MISCELLANEOUS:**

- **ADMINISTRATIVE INSTRUCTIONS:** ORM

**ENGR-SURV-3002:** Construct individual fighting position

**SUPPORTED MET(S):**

- MCT 5.3.3.3
- MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Construct individual fighting positions and/or trenches to protect one or more dismounted Marines armed with individual weapons, while supporting their ability to engage the enemy. Fighting positions typically consist of a hole in the ground, supplemented with frontal, overhead, and flank or rear cover as the time and situation permits. Trenches typically
connect fighting positions, C2 nodes and logistical hubs while providing cover from enemy observation and direct/indirect fire.

**CONDITION:** Given an operations order, personnel, and engineer equipment.

**STANDARD:** Positions are planned and designed so that they are concealed, mutually supporting, and have interlocking fields of fire in all directions and protect occupants against enemy direct-fire weapons systems.

**EVENT COMPONENTS:**
1. Coordinate with supported unit.
2. Prepare equipment for operation.
3. Move to site.
4. Establish safety zone.
5. Dig emplacement as required.
6. Displace equipment as required.
7. Submit required reports.

**RELATED EVENTS:**
1345-HEOP-1003 1345-HEOP-1004 1345-HEOP-1005
1345-HEOP-2012 1345-MANT-1001 1371-SURV-1001
1371-SURV-2001

**REFERENCES:**
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17.7C Carpentry
3. MCRP 3-17A Engineering Field Data
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.5 Combined Arms Countermobility Operations
6. MCWP 3-17.6 Survivability
7. MCWP 3-33 Military Operations Other Than War (MOOTW)
8. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
9. MCWP 3-41.1 Rear Area Operations
10. MCWP 4-11 Tactical-Level Logistics

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** Engineer equipment, Combat engineer tools and kits.

**MATERIAL:** Map, Compass, Protractor, Overlay sheets, Reconnaissance reports, Class IV materials as required.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** ORM

**ENGR-SURV-3003:** Construct crew served weapons position
SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.1.1.3.4

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Construct crew served weapons position to enable weapons to engage targets from front and oblique's.

CONDITION: Given an operations order, personnel, and engineer equipment.

STANDARD: That allows a weapons team the capability to engage targets from front and oblique's, and meets or exceeds the mission requirement and support the concept of operation in accordance with the commander's intent.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Prepare equipment for operation.
3. Move to site.
4. Establish safety zone.
5. Dig emplacement as required.
6. Displace equipment as required.
7. Submit required reports.

RELATED EVENTS:
1302-SURV-1002 1310-ADMN-2004 1310-ADMN-2009
1316-XENG-2002 1316-XENG-2005 1345-HEOP-1004
1345-HEOP-1005 1345-HEOP-1007 1345-HEOP-2006
1345-HEOP-2007 1345-HEOP-2012 1345-MANT-1001
1371-SURV-2001

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17A Engineering Field Data
3. MCWP 3-17 Engineering Operations
4. MCWP 3-17.5 Combined Arms Countermobility Operations
5. MCWP 3-17.6 Survivability
6. MCWP 3-33 Military Operations Other Than War (MOOTW)
7. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
8. MCWP 3-41.1 Rear Area Operations
9. MCWP 4-11 Tactical-Level Logistics

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer equipment, Combat engineer tools and kits.

MATERIAL: Map, Compass, Protractor, Overlay sheets, Reconnaissance reports, Class IV supplies as required.
MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: ORM

ENGR-SURV-3004: Construct overhead cover

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Construct overhead cover that meets or exceeds the maximum threat capability of enemy weapons systems.

CONDITION: Given an operations order, personnel, and engineer equipment.

STANDARD: To design specifications that meets or exceeds the maximum threat capability of enemy weapons systems in accordance with the concept of operations.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Design position required.
3. Determine material required.
4. Calculate time required for construction.
5. Prepare equipment for operation.
6. Move to site.
7. Establish safety zone.
8. Construct overhead cover as required.
9. Displace equipment as required.
10. Submit required reports.

RELATED EVENTS:
1316-ADMN-1001  1316-ADMN-1002  1316-ADMN-2001
1316-ADMN-2002  1316-XENG-1001  1316-XENG-1006
1316-XENG-2002  1345-HEOP-1003  1345-HEOP-1004
1349-ADMN-2004  1349-ADMN-2009  1349-ADMN-2010
1371-SURV-2001

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17.7C Carpentry
3. MCRP 3-17A Engineering Field Data
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.5 Combined Arms Countermobility Operations
6. MCWP 3-17.6 Survivability
7. MCWP 3-33 Military Operations Other Than War (MOOTW)
8. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOOT)
9. MCWP 3-41.1 Rear Area Operations
10. MCWP 4-11 Tactical-Level Logistics

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** Engineer equipment and combat engineer tools and kits.

**MATERIAL:** Map, Compass, Protractor, Overlay Sheets, Reconnaissance Reports, Class IV supplies as required.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** ORM

---

**ENGR-SURV-3005**: Construct triggering screen

**SUPPORTED MET(S):**

MCT 5.3.3.3  
MCT 6.1.1.3.4

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

**DESCRIPTION**: Triggering screens are built separately or added on to existing structures and used to activate the fuze of an incoming shell or projectile at a designated standoff distance from the structure.

**CONDITION**: Given an operations order, personnel, and engineer equipment.

**STANDARD**: So that it provides an effective screen against enemy weapons systems.

**EVENT COMPONENTS**:

1. Coordinate with supported unit.
2. Design position required.
3. Determine material required.
4. Calculate time required for construction.
5. Prepare equipment for operation.
6. Move to site.
7. Establish safety zone.
8. Construct blast screen as required.
9. Displace equipment as required.
10. Submit required reports.

**RELATED EVENTS**:

1302-SURV-1001  
1302-SURV-1002  
1371-SURV-1001  
1371-SURV-2001

**REFERENCES**:

1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17.7C Carpentry
3. MCRP 3-17A Engineering Field Data
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.5 Combined Arms Counter-mobility Operations
6. MCWP 3-17.6 Survivability
7. MCWP 3-33 Military Operations Other Than War (MOOTW)
8. MCWP 3-35.3 Military Operations on Urbanized Terrain (MOUT)
9. MCWP 3-41.1 Rear Area Operations
10. MCWP 4-11 Tactical-Level Logistics

SUPPORT REQUIREMENTS:

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** Engineer equipment and combat engineer tools and kits.

**MATERIAL:** Map, Compass, Protractor, Overlay sheets, Reconnaissance reports, Class IV materials, as required.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** ORM

**ENGRLSUTR-3006:** Construct shelter/bunkers

**SUPPORTED MET(S):**
MCT 5.3.3.3 MCT 6.1.1.3.4

**EVALUATION-CODED:** YES **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Construct shelters/bunkers to provide combatant(s) and/or combat equipment cover from the elements, indirect/direct fire weapons.

**CONDITION:** Given an operations order, personnel, and engineer equipment.

**STANDARD:** That provides combatant(s) and/or combat equipment cover from the elements, indirect/direct fire weapons, and meets or exceeds the mission requirement and supports the concept of operation in accordance with the commander’s intent.

**EVENT COMPONENTS:**
1. Coordinate with supported unit.
2. Design position required.
3. Determine material required.
4. Calculate time required for construction.
5. Prepare equipment for operation.
6. Move to site.
7. Establish safety zone.
8. Construct shelter/bunker as required.
9. Displace equipment as required.
10. Submit required reports.
RELATED EVENTS:
1302-CMOB-1001  1302-CMOB-1003  1302-SURV-1001
1316-ADMN-1001  1316-ADMN-2001  1316-ADMN-2002
1316-XENG-1001  1316-XENG-1006  1316-XENG-2002
1345-HEOP-1003  1345-HEOP-1004  1345-HEOP-1005
1345-HEOP-1007  1345-HEOP-2006  1345-HEOP-2012
1349-MANT-2002  1371-CMOB-1001  1371-CMOB-1002
1371-CMOB-1003  1371-CMOB-2001  1371-CMOB-2002
1371-SURV-1001  1371-SURV-2001  1371-SURV-2002

REFERENCES:
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17.7C Carpentry
3. MCRP 3-17A Engineering Field Data
4. MCWP 3-17 Engineering Operations
5. MCWP 3-17.5 Combined Arms Countermobility Operations
6. MCWP 3-17.6 Survivability
7. MCWP 3-41.1 Rear Area Operations
8. MCWP 4-11 Tactical-Level Logistics

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Engineer equipment and combat engineer tools and kits.

MATERIAL: Map, Compass, Protractor, Overlay sheets, Reconnaissance reports, Class IV materials as required.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: ORM

ENGR-SURV-3007: Construct vehicle fighting position

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Construct vehicle fighting position to increase vehicle survivability.

CONDITION: Given an operations order, personnel, engineer equipment, and materials.

STANDARD: That meets or exceeds the mission requirement for the specified
vehicle/weapons system in accordance with the concept of operations.

**EVENT COMPONENTS:**
1. Review the mission.
2. Coordinate with supported unit.
3. Prepare equipment for operation.
4. Move to site.
5. Establish safety zone.
6. Dig emplacement as required per vehicle type and weapon employment.
7. Displace equipment as required.
8. Submit required reports.

**RELATED EVENTS:**
- 1302-SURV-1001
- 1310-HEOP-2001
- 1310-HORZ-2001
- 1310-HORZ-2002
- 1310-MANT-2002
- 1345-HEOP-1004
- 1345-HEOP-1005
- 1345-HEOP-1007
- 1345-HEOP-2006
- 1345-HEOP-2012
- 1345-MANT-1001
- 1349-HEOP-2001
- 1349-HORZ-2001
- 1349-HORZ-2002
- 1349-HORZ-2003
- 1349-MANT-2002
- 1371-SURV-2001

**REFERENCES:**
1. JP 3-34 Engineer Doctrine for Joint Operations
2. MCRP 3-17A Engineering Field Data
3. MCWP 3-17 Engineering Operations
4. MCWP 3-17.6 Survivability
5. MCWP 3-41.1 Rear Area Operations

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** Engineer equipment.

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** ORM

**ENG-UTIL-3001:** Establish tactical power distribution system

**SUPPORTED MET(S):**
- MCT 5.3.3.3
- MCT 6.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Provide power distribution equipment to establish a tactical electric grid in order to distribute electric power that meets operational requirement and commander's intent.

**CONDITION:** With a utilities plan, required equipment and personnel

**STANDARD:** To accomplish operational requirements and commander's intent.
EVENT COMPONENTS:
1. Coordinate with supported unit(s).
2. Determine load requirements.
3. Plan power distribution system(s).
4. Set up distribution system(s).
5. Inspect grounding and connections.
6. Energize system(s).
7. Test system(s).

RELATED EVENTS:
1. Coordinate with supported unit(s).
2. Determine load requirements.
3. Plan power distribution system(s).
4. Set up distribution system(s).
5. Inspect grounding and connections.
6. Energize system(s).
7. Test system(s).

REFERENCES:
1. Appropriate Technical Manuals
2. FM 5-424 Theater of Operations Electrical Systems
3. TM 12359A-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment
4. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces


ENGR-UTIL-3002: Provide floodlight support

SUPPORTED MCT(S):
MCT 5.3.3.3 MCT 6.1.1.3.4 MCT 6.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Provide illumination during low light conditions in order to meet mission requirements and commander's intent.

CONDITION: With an operational order, required equipment and personnel.

STANDARD: To properly illuminate required area.

EVENT COMPONENTS:
1. Coordinate with supported unit(s).
2. Establish illumination plan.
3. Set up floodlight set(s).
4. Operate a floodlight.
RELATED EVENTS:
1141-ADMN-1006 1141-ADMN-1007 1141-ADMN-1008
1141-ADMN-1009 1141-MANT-1101 1141-MANT-1247
1141-XENG-1703 1141-XENG-1747 1141-XENG-2622

REFERENCES:
1. FM 5-424 Theater of Operations Electrical Systems
2. TM 12359A-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment

SUPPORT REQUIREMENTS:

EQUIPMENT: PPE, tools and kits

ENGR-UTIL-3003: Establish power generation site(s)

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Provide power generation equipment to meet the operational requirement and commander's intent.

CONDITION: With a utilities plan, required equipment and personnel.

STANDARD: To ensure operational requirements are met.

EVENT COMPONENTS:
1. Coordinate with supported unit(s).
2. Set up generator site(s).
3. Inspect grounding and connections.
4. Energize system(s).
5. Perform operational check(s).
6. Test system.

RELATED EVENTS:
1141-ADMN-1006 1141-ADMN-1007 1141-ADMN-1008
1141-ADMN-1009 1141-MANT-1101 1141-MANT-1247
1141-XENG-1618 1141-XENG-1751 1141-XENG-1752
1141-XENG-1753 1141-XENG-1754 1141-XENG-1757
1141-XENG-1763 1141-XENG-1765 1141-XENG-1795
1141-XENG-2622 1141-XENG-2718 1141-XENG-2737
1141-XENG-2750 1141-XENG-2755

REFERENCES:
1. Appropriate Technical Manuals
2. FM 5-424 Theater of Operations Electrical Systems
3. TM 12359A-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment
4. TM 9406-15 Grounding Procedures for Electromagnetic Interference Control and Safety
SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Power Generation Systems, PPE, MHE, Motor Transport equipment, HazMat Containment Kit.

ENGR-UTIL-3004: Wire a structure for electricity

SUPPORTED MET(S):
MCT 5.3.2.12  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Install interior electrical wiring in order to distribute electricity to meet electrical power requirements.

CONDITION: Provided a mission, resources, required equipment, and personnel.

STANDARD: To establish operational power per commander’s intent to support mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit(s).
2. Estimate and requisition materials, as required.
3. Calculate time required to wire structure.
4. Gather tools and materials.
5. Set safety zone, lockout and tagout any preexisting electrical circuits that will be worked on, as required.
6. Verify the location of preexisting underground utility lines.
7. Install electrical boxes, interior/exterior wiring, service feeder, service entrance cables and main and sub panel boxes, as required.
8. Install equipment and system grounding, as required.
9. Request qualified inspector to complete uncovered/rough-in electrical inspection.
10. Install devices, circuit breakers, fixtures and electrical equipment, as required.
11. Request qualified inspector to complete final electrical inspection.
12. Request qualified personnel to connect service feeder to appropriate transformer or power generation, as required.
13. Energize and test electrical system.
14. Submit required reports.

RELATED EVENTS:
1141-ADMN-1002  1141-ADMN-2031  1141-MANT-1101
1141-XENG-1601  1141-XENG-1703  1141-XENG-1961
1141-XENG-1962  1141-XENG-2561  1141-XENG-2622
1141-XENG-2623  1141-XENG-2694  1141-XENG-2696
1141-XENG-2963  1141-XENG-2964  1141-XENG-2965
1141-XENG-2966
REFERENCES:
2. 29 CFR 1910.301-399 Chapter 29, Code of Federal Regulations, Part Number 1910 (Occupational Safety and Health Standards), Subpart S, (Standard Numbers 301-399) - Electrical
3. FM 5-424 Theater of Operations Electrical Systems
4. NEC (NFPA 70) National Electrical Code - by National Fire Protection Association

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Electrical materials (as required), PPE, tools and kits.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Final inspection must be performed by a qualified inspector who is a graduate of one or more listed courses: Advanced Electrician (AE), Utilities Chief (UC), or Utilities Officer (UO) Course.

ENGR-UTIL-3005: Provide Environmental Control Unit (ECU) support

SUPPORTED MET(S):
MCT 5.3.2.12  MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Utilize ECU equipment in order to provide adequate climate control for critical equipment that is sensitive to extreme temperatures.

CONDITION: With an operational order, required equipment and personnel.

STANDARD: In accordance with the operational order.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Establish ECU support plan.
3. Install ECU(s).
4. Maintain ECU(s).

RELATED EVENTS:
1161-ADMN-1006  1161-MANT-1211  1161-MANT-1218
1161-XENG-1611  1161-XENG-1614  1161-XENG-1634
1161-XENG-2541  1161-XENG-2618  1161-XENG-2641
1161-XENG-2741

REFERENCES:
1. 40 CFR 82 Chapter 40, Code of Federal Regulations, Part Number 82 (Protection of Stratospheric Ozone)
2. 42 USC 85 VI 7671 Title 42, United States Code, Chapter 85, Subchapter VI, Section 7671 (Ozone Protection)
3. MCO 5090.1 Chlorofluorocarbons (CFC's) and Halons
4. TM 12359A-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces

**EQUIPMENT:** PPE, power generation, distribution, ECU equipment, maintenance equipment as required

---

**ENGR-UTIL-3006:** Provide refrigeration support

**SUPPORTED MET(S):** MCT 5.3.3.3

**EVALUATION-CODED:** YES  
**SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Provide refrigeration for cooling and freezing.

**CONDITION:** With an operational order, required equipment and personnel.

**STANDARD:** In accordance with the operational order.

**EVENT COMPONENTS:**
1. Coordinate with supported unit.
2. Setup refrigeration unit(s).
3. Maintain refrigeration unit(s).
4. Recover refrigeration unit(s).

**RELATED EVENTS:**
1161-ADMN-1006  1161-MANT-1235  1161-XENG-1635
1161-XENG-2541  1161-XENG-2642  1161-XENG-2741

**REFERENCES:**
1. 40 CFR 82 Chapter 40, Code of Federal Regulations, Part Number 82 (Protection of Stratospheric Ozone)
2. 42 USC 85 VI 7671 Title 42, United States Code, Chapter 85, Subchapter VI, Section 7671 (Ozone Protection)
3. MCO 5090.1 Chlorofluorocarbons (CFC's) and Halons
4. TM 12359A-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17410 Maneuver/Training Area, Light Forces
EQUIPMENT:  PPE, power generation equipment, ECUs, distribution, maintenance equipment as required.

ENGR-UTIL-3007:  Produce potable water

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED:  YES  SUSTAINMENT INTERVAL:  6 months

DESCRIPTION:  Produce and store, potable water in order to meet mission requirements.

CONDITION:  With a utilities plan, required equipment and personnel.

STANDARD:  To ensure operational requirements are met.

EVENT COMPONENTS:
1. Perform water recon.
2. Establish water point.
3. Produce potable water.
4. Test water for potability.

RELATED EVENTS:
1171-ADMN-1006  1171-ADMN-1007  1171-ADMN-1008
1171-ADMN-1009  1171-MANT-1282  1171-XENG-1604
1171-XENG-1782  1171-XENG-2501  1171-XENG-2502
1171-XENG-2553  1171-XENG-2651  1171-XENG-2653
1171-XENG-2752  1171-XENG-2753  1171-XENG-2754
1171-XENG-2853

REFERENCES:
1. Appropriate Technical Manuals
2. FM 10-52 Water Supply in Theaters of Operation
3. FM 10-52-1 Water Supply Point Equipment and Operations
4. MCWP 4-11.6 Petroleum and Water Logistics Operations
5. TB MED 577 Occupational and Environmental Health Sanitary Control and Surveillance of Field Water Supplies

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:  Facility Code 17924 Water Supply Training Area

EQUIPMENT:  Utilities equipment with supplemental kits (cartridges, NBC filters etc.), MHE, water testing kit, tool kits, PPE

MATERIAL:  Chemicals to purify raw water source.

UNITS/PERSONNEL:  Note:  Request Navy Medical Technician and Preventive Medicine Technician (PMT) as required.
**ENGR-UTIL-3008**: Store potable water

**SUPPORTED MET(S)**:  
MCT 5.3.3.3  
MCT 6.3.3

**EVALUATION-CODED**: NO  
**SUSTAINMENT INTERVAL**: 6 months

**DESCRIPTION**: Store potable water in order to meet mission requirements.

**CONDITION**: With a utilities plan, required equipment and personnel.

**STANDARD**: To ensure operational requirements are met.

**EVENT COMPONENTS**:  
1. Determine storage requirements.  
2. Establish storage site(s).  
3. Test water for potability.  
4. Store water for distribution.

**PREREQUISITE EVENTS**:  
1171-ADMN-1006  
1171-ADMN-1007  
1171-ADMN-1008  
1171-MANT-1241  
1171-MANT-1248  
1171-MANT-1277  
1171-MANT-1278  
1171-MANT-1284  
1171-MANT-1285  
1171-XENG-1677  
1171-XENG-1678  
1171-XENG-1684  
1171-XENG-1685  
1171-XENG-1702  
1171-XENG-2553  
1171-XENG-2653  
1171-XENG-2752  
1171-XENG-2753  
1171-XENG-2853

**REFERENCES**:  
1. Appropriate Technical Manuals  
2. FM 10-52 Water Supply in Theaters of Operation  
3. FM 10-52-1 Water Supply Point Equipment and Operations  
4. MCWP 4-11.6 Petroleum and Water Logistics Operations  
5. TB MED 577 Occupational and Environmental Health Sanitary Control and Surveillance of Field Water Supplies

**SUPPORT REQUIREMENTS**:  
**RANGE/TRAINING AREA**: Facility Code 17924 Water Supply Training Area  
**EQUIPMENT**: Utilities potable storage equipment, MHE, water testing kit, tool kits, PPE  
**MATERIAL**: Chemicals to sustain potable water.  
**UNITS/PERSONNEL**: Note: Request Navy Medical Technician and Preventive Medicine Technician (PMT), as required.

---

**ENGR-UTIL-3009**: Establish water distribution site

**SUPPORTED MET(S)**:  
MCT 5.3.3.3  
MCT 6.3.3
EVALUATION-CODED:  NO  SUSTAINMENT INTERVAL:  6 months

DESCRIPTION:  Establish an accessible potable water distribution site for the supported unit in order to meet mission requirements.

CONDITION:  With a utilities plan, required equipment and personnel.

STANDARD:  To ensure operational requirements are met.

EVENT COMPONENTS:
1. Determine water requirements.
2. Set up distribution system(s).
3. Inspect system(s).
4. Test water for potability.
5. Distribute potable water.

RELATED EVENTS:
1171-ADMN-1006  1171-ADMN-1007  1171-ADMN-1008
1171-ADMN-1009  1171-MANT-1241  1171-MANT-1248
1171-MANT-1271  1171-MANT-1272  1171-MANT-1274
1171-MANT-1277  1171-MANT-1278  1171-MANT-1279
1171-MANT-1280  1171-MANT-1284  1171-MANT-1285
1171-XENG-1648  1171-XENG-1677  1171-XENG-1678
1171-XENG-1680  1171-XENG-1684  1171-XENG-1685
1171-XENG-1702  1171-XENG-1748  1171-XENG-1771
1171-XENG-1772  1171-XENG-1774  1171-XENG-1779
1171-XENG-2752  1171-XENG-2753  1171-XENG-2754
1171-XENG-2853

REFERENCES:
1. Appropriate Technical Manuals
2. FM 10-52 Water Supply in Theaters of Operation
3. FM 10-52-1 Water Supply Point Equipment and Operations
4. MCWP 4-11.6 Petroleum and Water Logistics Operations
5. TB MED 577 Occupational and Environmental Health Sanitary Control and Surveillance of Field Water Supplies

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:  Facility Code 17924 Water Supply Training Area

EQUIPMENT:  Utilities equipment, water testing kit, PPE, MHE, motor transport, tool kits, appropriate POLs

MATERIAL:  Chemicals to sustain potable water.

UNITS/PERSONNEL:  Note: Request Navy Medical Technician and Preventive Medicine Technician (PMT) as required.

ENGR-UTIL-3010:  Provide laundry services

SUPPORTED MET(S):
EVALUATION-CODED: NO
SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Provide laundry services to meet mission requirements and commander's intent.

CONDITION: With a utilities plan, required equipment and personnel.

STANDARD: To ensure operational requirements are met.

EVENT COMPONENTS:
1. Coordinate with supported unit(s).
2. Establish laundry facilities.
3. Implement laundry schedule.
4. Operate laundry unit(s).

RELATED EVENTS:
1171-ADMN-1006  1171-ADMN-1007  1171-ADMN-1008
1171-ADMN-1009  1171-MANT-1232  1171-MANT-1278
1171-MANT-1284  1171-MANT-1285  1171-XENG-1632
1171-XENG-1678  1171-XENG-1684  1171-XENG-1685
1171-XENG-1732  1171-XENG-2555  1171-XENG-2655
1171-XENG-2755

REFERENCES:
1. MCRP 4-11.1D Field Hygiene and Sanitation

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Utilities equipment, PPE, MHE, motor transport, tool kits

MATERIAL: Laundry detergent, gravel, lime, insecticide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Note: Water does not have to be completely potable-untreated Class III fresh water can be utilized.

ENGR-UTIL-3011: Provide shower services

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO
SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Provide shower services to meet mission requirements and commanders intent.
CONDITION: With a utilities plan, required equipment and personnel.

STANDARD: To ensure operational requirements are met.

EVENT COMPONENTS:
1. Coordinate with supported unit(s).
2. Establish shower facilities.
3. Implement shower schedule.
4. Operate shower unit(s).

RELATED EVENTS:
1171-ADMIN-1006  1171-ADMIN-1007  1171-ADMIN-1008
1171-ADMIN-1009  1171-MANT-1231  1171-MANT-1278
1171-XENG-1631  1171-XENG-1678  1171-XENG-1731
1171-XENG-2555  1171-XENG-2655  1171-XENG-2755
1171-XENG-2855

REFERENCES:
1. MCRP 4-11.1D Field Hygiene and Sanitation

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Utilities equipment, PPE, MHE, motor transport, tool kits, FOLs.

MATERIAL: Building material, cleaning supplies, lime, insecticide, gravel.

UNITS/PERSONNEL: Note: Water must be potable (Class I) for showers.

ENGR-UTIL-3012: Install plumbing in a structure

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Install piping system in order to meet plumbing requirements and commander's intent.

CONDITION: Provided a mission, resources, required equipment, and personnel.

STANDARD: To establish water and sewer services per commanders intent to support mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit(s).
2. Estimate and requisition materials, as required.
3. Calculate time required to plumb structure.
4. Gather tools and materials.
5. Set safety zone.
6. Verify the location of preexisting underground utility lines.
7. Install interior/exterior drainage plumbing system with appropriately sized vent(s), trap(s) and cleanout(s).
8. Pressurize drainage system to identify possible leaks.
9. Install hot and cold water supply lines with shut-off and relief valve(s), as required.
10. Request qualified inspector to complete uncovered/rough-in plumbing inspection.
11. Install plumbing fixtures.
12. Request qualified personnel to install water meter and shut-off valve, as required.
13. Connect structure main water supply line to water meter, as required.
14. Request qualified personnel to install sewer/septic system, as required.
15. Connect structure main sanitation pipe(s) to sewer/septic system, as required.
16. Request qualified inspector to complete final plumbing inspection.
17. Submit required reports.

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>Event Code</th>
<th>Event Code</th>
<th>Event Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1171-ADMN-1006</td>
<td>1171-ADMN-1007</td>
<td>1171-ADMN-1008</td>
</tr>
<tr>
<td>1171-ADMN-1009</td>
<td>1171-MANT-1231</td>
<td>1171-MANT-1278</td>
</tr>
<tr>
<td>1171-XENG-1631</td>
<td>1171-XENG-1678</td>
<td>1171-XENG-1731</td>
</tr>
<tr>
<td>1171-XENG-2555</td>
<td>1171-XENG-2655</td>
<td>1171-XENG-2755</td>
</tr>
<tr>
<td>1171-XENG-2855</td>
<td>1171-XENG-2955</td>
<td>1171-XENG-3055</td>
</tr>
</tbody>
</table>

**REFERENCES:**

1. UPC (IAPMO/ANSI) Uniform Plumbing Code – by International Association of Plumbing and Mechanical Officials/American National Standard Institute

**SUPPORT REQUIREMENTS:**

- **EQUIPMENT:** PPE, tools and kits
- **MATERIAL:** Building materials

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** Final inspection must be performed by a qualified inspector who is a graduate of one or more listed courses: Advanced Water Support Technician (AWST), Utilities Chief (UC), or Utilities Officer (UO) Course.

**TEGR-VER-3001:** Fell standing timber

**SUPPORTED MET(S):**

| MCT 5.3.3.3 | MCT 6.3.3 |

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 3 months

**DESCRIPTION:** Fell standing timber to clear a forested area in support of operations.
CONDITION: Given an operations order, standing timber, appropriate hand tools, an SL-3 complete chainsaw, mixed fuel, personnel, and all personal protective equipment (PPE).

STANDARD: To clear a forested area in support of operations in accordance with the concept of operations and the commander's intent.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Determine equipment required.
3. Calculate time required for construction.
4. Prepare equipment for operation.
5. Move to site.
6. Establish safety zone.
7. Cut timber.
8. Submit required reports.

RELATED EVENTS:
1302-CMOB-1001  1302-CMOB-1002  1302-SURV-1001
1345-HEOP-1004  1345-HEOP-1005  1345-HEOP-1006
1345-MANT-1001  1345-MANT-2001  1349-ADMN-2004
1349-MANT-2002  1371-CMOB-2001  1371-EOPS-1002
1371-EOPS-1003  1371-EOPS-1004  1371-EOPS-2008

REFERENCES:
1. Appropriate TM/Manufacture's Manual for Chainsaw
2. MCRP 3-17A Engineering Field Data
3. MCRP 3-17B Engineer Forms and Reports

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17410 Maneuver/Training Area, Light Forces

EQUIPMENT: Combat engineer tools and kits, PPE.

OTHER SUPPORT REQUIREMENTS: ORM

HQCO-ABGD-3001: Employ a medium machinegun team

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Employ a medium machinegun team in a mounted/dismounted position.

CONDITION: Given an operations order, a medium machinegun team, mounted, sectors of fire, targets, FPF, and while wearing fighting loads.
**STANDARD:** To support the scheme of maneuver in accordance with the concept of operations and commander's intent.

**EVENT COMPONENTS:**
1. Coordinate with supported unit.
2. Eemplace/mount the weapon.
3. Engage targets.
4. Control fires as directed.
5. Displace according to scheme of maneuver.
6. Prepare for follow-on missions.

**REFERENCES:**
1. MCWP 3-1 Ground Combat Operations
2. MCWP 3-15.1 Machine Guns and Machine Gun Gunnery

**SUPPORT REQUIREMENTS:**

**ORDNANCE:**

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A064 Cartridge</td>
<td>5.56mm 4 Ball M855/1 Tracer</td>
<td>354 rounds per Team</td>
</tr>
<tr>
<td>A131 Cartridge</td>
<td>7.62mm 4 Ball M80/1 Trace</td>
<td>1284 rounds per Team</td>
</tr>
<tr>
<td>A135 Cartridge</td>
<td>7.62mm Dummy M63</td>
<td>12 rounds per Team</td>
</tr>
</tbody>
</table>

**RANGE/TRAINING AREA:**
- Facility Code 17580 Machine Gun Transition Range
- Facility Code 17581 Machine Gun Field Fire Range

**UNITS/PERSONNEL:** Range Safety officer, Corpsman

**OTHER SUPPORT REQUIREMENTS:** ORM

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:** This task should be trained on the ISMT before expending live rounds. This task can be accomplished using training rounds. This task can be sustained through ISMT. Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

**HQCO-ABGD-3002:** Employ a heavy machinegun team

**SUPPORTED MET(S):** MCT 6.1.1.3.4

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 6 months

**DESCRIPTION:** Employ a heavy machinegun team in a mounted/dismounted position.

**CONDITION:** Given an operations order, a heavy machinegun team, mounted, sectors of fire, targets, FPF, and while wearing fighting loads.

**STANDARD:** To support the scheme of maneuver.
EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Emplace/mount the weapon.
3. Engage targets.
4. Control fires as directed.
5. Displace according to scheme of maneuver.
6. Prepare for follow-on missions.

REFERENCES:
1. MCWP 3-1 Ground Combat Operations
2. MCWP 3-15.1 Machine Guns and Machine Gun Gunnery

SUPPORT REQUIREMENTS:

ORDNANCE:

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Description</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>A560</td>
<td>Cartridge, Caliber .50 Dummy M2</td>
<td>20 rounds per Team</td>
</tr>
<tr>
<td>A576</td>
<td>Cartridge, Caliber .50 4 API M8/1 AP</td>
<td>1045 rounds per Team</td>
</tr>
<tr>
<td>B472</td>
<td>Cartridge, 40mm Dummy M922</td>
<td>20 rounds per Team</td>
</tr>
<tr>
<td>B542</td>
<td>Cartridge, 40mm HEDP M430/M430A1 Lin</td>
<td>337 rounds per Team</td>
</tr>
<tr>
<td>BA21</td>
<td>Cartridge, 40mm Practice (Day/Night)</td>
<td>32 rounds per Team</td>
</tr>
</tbody>
</table>

RANGE/TRAINING AREA:
Facility Code 17580 Machine Gun Transition Range
Facility Code 17581 Machine Gun Field Fire Range

UNITS/PERSOENNEL: Range Safety officer, Corpsman

OTHER SUPPORT REQUIREMENTS: ORM

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This task should be trained on the ISMT before expending live rounds. This task can be accomplished using training rounds. This task can be sustained through ISMT. Quantities of ammunition, explosives and pyrotechnics are sufficient to conduct one training evolution per team. Final amounts should be adjusted to reflect sustainment intervals for this event.

HQCO-ABGD-3003: Engage targets with a grenade launcher

SUPPORTED MET(S): MCT 6.1.1.3.4

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 6 months

CONDITION: Given a grenade launcher, ammunition, and targets at various unknown distances, while wearing a fighting load.

STANDARD: To place 2 of 3 rounds within a 15 meter (ECR) radius of the target.

EVENT COMPONENTS:
1. Identify a target.
2. Estimate range.
3. Set sights.
4. Fire from a supported position.

**RELATED EVENTS:**
0300-M203-1002 0300-M203-1003 0300-M203-1004

**REFERENCES:**
1. FM 3-22.31 40-mm Grenade Launcher, M203
2. TM 07700B-10 Operator's Manual, 40mm Grenade Launcher, M203 (Ch 1&2)

**SUPPORT REQUIREMENTS:**

**ORDNANCE:**

<table>
<thead>
<tr>
<th>DODIC</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>B546 Cartridge, 40mm HEDP M433</td>
<td>10 grenades per Marine</td>
</tr>
<tr>
<td>BA35 Cartridge, 40mm Practice (Day/Night)</td>
<td>10 grenades per weapon</td>
</tr>
</tbody>
</table>

**RANGE/TRAINING AREA:** Facility Code 17610 Grenade Launcher Range

**OTHER SUPPORT REQUIREMENTS:**
This event can be trained/augmented through the use of the following enablers:
- LIVE - TGTS
- VIRTUAL/CONSTRUCTIVE - ISMT, DVTE (VBS2)

**MISCELLANEOUS:**

**ADMINISTRATIVE INSTRUCTIONS:**
1. This task may be trained to standard using training practice rounds.
2. Ammunition breakout is 5 rounds to practice, 3 to achieve standard, and 2 for remediation.
3. Training will be conducted on multiple targets and the standard achieved on a single target.
4. A Marksmanship Skills Training Simulator is to be used during preparatory training for this event for initial skill development and remediation. To achieve the standard this task is required to be done during live fire training.

**HQCO-CBRN-3001:** Conduct unit Individual Protective Equipment (IPE) confidence exercise

**SUPPORTED MET(S):** MCT 5.3.3.3

**EVALUATION-CODED:** YES  **SUSTAINMENT INTERVAL:** 12 months

**DESCRIPTION:** IPE Confidence Exercises prepare personnel to operate in a contaminated environment physically, mentally, and psychologically. This training provides all personnel the opportunity to experience how their IPE performs and protects them. IPE Confidence Exercises reveal how MOPP will influence individual and unit performance during military operations.
Harassment and unnecessary actions/events are harmful and prohibited. When properly conducted, IPE Confidence Exercises provide personnel the confidence to survive, operate and accomplish their mission in a CBRN environment. IPE includes a number of different masks, accessories, and various clothing items. The minimum attire, ensemble, and/or items to be worn for the enclosed and open air training environments are provided in the following paragraphs. This will help ensure the unit meets their CBRN training requirements, and that their unit is prepared for operation in a CBRN environment.

**CONDITION:** With the aid of references, the units mission, the requirement to implement a unit CBRN training plan, personnel to facilitate (instructors and evaluators) and conduct training, facilities/training areas/ranges, medical personnel as applicable, ammunition (CS capsules/canisters/grenades as applicable) and training equipment.

**STANDARD:** To ensure trained personnel meet or exceed the performance standards for all training objectives, training follows the training plan; is doctrinally and technically current; is performance oriented; and complies with the commander's guidance and regulations for safety and security, training is assessed, recorded, results reported, and AAR conducted, in accordance with MCO 3400.3.

**EVENT COMPONENTS:**
1. Identify training requirement.
2. Schedule training.
3. Coordinate logistics.
4. Synchronize equipment, personnel and resources.
5. Develop and Publish the Letter of Instruction (LOI) to synchronize the training event(s).
6. Conduct the Operational Risk Assessment (ORA) and complete the ORA Worksheet (ORAW).
7. Conduct Individual Training Standards, as required.
8. Administer IPE Confidence exercise.
11. Maintain records.

**RELATED EVENTS:**
- 5702-TRG-2001
- 5702-TRG-2002
- 5711-EQP-2001
- 5711-SHD-2001
- 5711-SNS-2001
- 5711-SUS-2001

**REFERENCES:**
1. MCO 1553.3 Unit Training Management (UTM) Program
2. MCO 3400.3 Nuclear, Biological and Chemical (NBC) Defense Training
3. MCO 3500.27 Operational Risk Management (ORM)
4. MCRP 3-0A Unit Training Management Guide
5. MCRP 3-0B How to Conduct Training
6. MCRP 3-0C Operational Training Ranges Required Capabilities

**HQCO-CBRN-3002:** Conduct CBRN center operations

**SUPPORTED MET(S):** MCT 5.3.3.3
EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The extent of CBRN Center operations is dependent on the level of command. For Divisions, Wings, Marine Logistics Groups (MLG), and above, the Center is fully staffed with CBRN personnel responsible for all aspects of CBRN Center operations. At lower levels of command (Regt/MAG and below), CBRN personnel at a minimum, must be able to monitor the battle, track the locations of CBRN hazards and/or incidents, and execute CBRN warning and reporting. CBRN personnel must determine the extent of their responsibilities, based on their level of command, and identify the personnel, equipment and training required to meet those responsibilities.

CONDITION: With the aid of references, given a common operational picture and operational order.

STANDARD: To monitor CBRN defense operations in the units area of operation in accordance with MCRP 3-37B, Appendix I.

EVENT COMPONENTS:
1. Integrate CBRN center into operation center.
2. Establish a battle rhythm.
3. Conduct battle drills.
4. Maintain communications higher adjacent subordinate and supporting units/agencies.
5. Receive and disseminate reports.
6. Maintain common operational picture.
8. Support Senior Watch Officer.
9. Synchronize CBRNWRS IM procedures as required.
10. Synchronize CWMD support activities as required.
11. Synchronize CBRN contamination avoidance (CA) measures as required.
12. Synchronize CBRN operational exposure guidance as required.
13. Synchronize CBRN protection measures as required.
14. Synchronize CBRN reconnaissance and surveillance operations as required.
15. Synchronize CBRN decontamination operations as required.

REFERENCES:
1. MCRP 3-37.2A MTTP for Chemical, Biological, Radiological and Nuclear Contamination Avoidance
2. MCRP 3-37.2C MTTP for CBRN Consequence Management
3. MCRP 3-37B MTTP for CBRN Aspects of Command and Control
4. MCWP 3-37 MAGTF CBRN Support to CWMD Operations
5. MCWP 3-37.1 Multiservice Doctrine for CBRN Operations
6. MCWP 3-37.2 MTTP for NBC Protection
7. MCWP 3-37.3 MTTP for CBRN Decontamination
8. MCWP 3-37.4 MTTP for CBRN Reconnaissance and Surveillance
9. MCWP 5-1 Marine Corps Planning Process (MCPP)

HQCO-CBRN-3003: Conduct operational decontamination

SUPPORTED MET(S):
MCT 5.3.3.3    MCT 6.3.3
EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: To apply principles of avoid, protect and decontaminate to Marine forces operating in proximity to the threat or actual use of CBRN. This includes the coordination of detection, reconnaissance/surveillance, the standardization of warning and reporting between Marine, Service, Joint and/or Multinational forces, decontamination support, and the exchange of standing operating procedures (SOPs) to facilitate operations. The use of organic detection, protection, and decontamination equipment and the coordination with higher headquarters for additional support is required. Units must detect and identify immediate CBRN hazards; define the parameters of a CBRN hazard; enhance the protection of all personnel within a protected area; and initiate recovery and reconstitution operations.

CONDITION: With the aid of references, an area exposed (either intentionally or accidentally) to a CBRN hazard, trained and organized unit personnel and the necessary decontamination assets (to include water and fuel).

STANDARD: To provide temporary relief from MOPP gear and/or restore combat power in accordance with MCWP 3-37.3.

EVENT COMPONENTS:
1. Train decontamination teams.
2. Assemble decontamination teams.
3. Equip decontamination teams.
4. Determine level of decontamination required.
5. Determine support required (internal/external).
6. Synchronize personnel equipment and resources.
7. Select decontamination site.
8. Establish decontamination site.
9. Conduct detailed equipment decontamination (DED), as required.
10. Conduct detailed troop decontamination (DED), as required.
11. Conduct detailed aircraft decontamination (DAD), as required.
12. Conduct contaminated casualty decontamination (CCD), as required.
13. Conduct MOPP gear exchange/MOPP drop, as required.
14. Conduct vehicle washdown, as required.
15. Conduct aircraft washdown, as required.
16. Conduct technical decontamination, as required.
17. Conduct special decontamination, as required.
18. Conduct decontamination site closeout.

RELATED EVENTS:
5711-SUS-2001

REFERENCES:
1. MCRP 3-37B MTTP for CBRN Aspects of Command and Control
2. MCWP 3-37 MAGTF Nuclear, Biological, and Chemical Defense Operations
3. MCWP 3-37.1 Multiservice Doctrine for CBRN Operations
4. MCWP 3-37.2 MTTP for NBC Protection
5. MCWP 3-37.3 MTTP for CBRN Decontamination
6. NAVAIR 00-80T-121 CBRND NATOPS MANUAL

SUPPORT REQUIREMENTS: 
RANGE/TRAINING AREA: Facility Code 17932 Decontamination Training Site

HQCO-COMM-3001: Establish Video Teleconferencing (VTC) services

SUPPORTED MET(S): MCT 4.6.3

EVALUATION-CODED: NO   SUSTAINMENT INTERVAL: 2 months

DESCRIPTION: VTC is considered a real-time service and is employed to support the commander's information exchange requirements. VTC suites are not standardized. Examples of successful tasks include a secure/non-secure ISDN dial-up, serial port, and IP based capability depending upon the planned network.

CONDITION: Given a Real-time Services Plan, required equipment and personnel, and an existing transmission path.

STANDARD: Within 24 hours, with the quality of service required to satisfy the commander's information exchange requirements.

EVENT COMPONENTS:
1. Coordinate VTC protocol with service provider.
2. Install VTC terminal.
3. Establish secure VTC services.
4. Establish non-secure VTC services.
5. Establish call.
6. Provide end user support.

RELATED EVENTS:
0651-INST-2401  0651-INST-2403  0651-INST-2404

REFERENCES:
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCWP 3-40.3 MAGTF Communications System

HQCO-COMM-3002: Establish a single channel radio site

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: NO   SUSTAINMENT INTERVAL: 2 months

DESCRIPTION: The Team will install a single channel radio site IAW the Radio Network Plan utilizing all necessary support assets. A single channel radio site includes the physical layout and the initial configuration of all single channel radio and retransmission assets. Team members will ensure site survey guidelines are enforced. An example of a successful task includes a single channel radio site that meets all functional and safety parameters.

CONDITION: Provided a command's mission, a Radio Network Plan, and all
required equipment and personnel.

**STANDARD:** In the time allotted by the commander.

**EVENT COMPONENTS:**
1. Conduct time critical ORM.
2. Validate the site plan.
3. Configure equipment.
4. Execute mission.

**CHAINED EVENTS:** COMM-PIOM-3001

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>Event Code 1</th>
<th>Event Code 2</th>
<th>Event Code 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>0603-PLAN-2102</td>
<td>0620-DSGN-2201</td>
<td>0620-DSGN-2203</td>
</tr>
<tr>
<td>0621-INST-2401</td>
<td>0621-MNGT-2701</td>
<td>0621-OPER-1501</td>
</tr>
<tr>
<td>0621-OPER-2501</td>
<td>0622-OPER-1502</td>
<td>0629-MNGT-2701</td>
</tr>
<tr>
<td>0629-PLAN-2101</td>
<td>0629-PLAN-2103</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES:**
1. CJCSM 6231 (Series) Manual for Employing Joint Tactical Communications
2. JP 6-0 Joint Communications System
3. MCWP 3-40.3 MAGTF Communications System
4. SOP Standard Operating Procedures (SOP)

---

**HQCO-FOOD-3001:** Monitor quality control program

**SUPPORTED MET(S):** MCT 5.3.3.3

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

**CONDITION:** In a food service environment.

**STANDARD:** To ensure that operations outlined in the Quality Assurance Surveillance Plan (QASP) meet specified standards.

**EVENT COMPONENTS:**
1. Inspect the quality of food preparation.
2. Review Statement of Work/SOP to determine requirements.
3. Perform Quality Assurance inspections according to evaluation schedules.
4. Report written findings.

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>Event Code 1</th>
<th>Event Code 2</th>
<th>Event Code 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>3381-ADMN-2005</td>
<td>3381-CTQA-2201</td>
<td>3381-CTQA-2202</td>
</tr>
</tbody>
</table>

**REFERENCES:**
1. MCO 10110.14M Marine Corps Food Service and Subsistence Program
2. MCRP 4-11.8A Marine Corps Field Feeding Program
3. NAVMED P-5010-1 Manual of Naval Preventive Medicine, Chapter 1, Food Sanitation
4. NAVMED P-5010-9 Manual of Naval Preventive Medicine, Chapter 9, Preventive Medicine for Ground Forces
HQCO-FOOD-3002: Conduct technical inspections

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

CONDITION: In a food service environment, given an inspection team, publications, and evaluation checklists.

STANDARD: To ensure proper food preparation and correct use of personnel, facilities, and equipment.

EVENT COMPONENTS:
1. Review evaluation results.
2. Publish results.

RELATED EVENTS:
3302-GARR-2302  3381-CTQA-2202

REFERENCES:
1. MCO 10110.14M Marine Corps Food Service and Subsistence Program
2. MCO P10110.34M U.S. Marine Corps Food Service and Subsistence Program
3. NAVMED P-5010-1 Manual of Naval Preventive Medicine, Chapter 1, Food Sanitation
4. NAVSUP P-421 Navy Food Service SOP

HQCO-FOOD-3003: Embark equipment

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES  SUSTAINMENT INTERVAL: 12 months

CONDITION: In a field environment, given a units authorized Table of Equipment (T/E).

STANDARD: To ensure all appropriate equipment for operations is available, adequately accounted for, and secured.

EVENT COMPONENTS:
1. Gather personnel and equipment.
2. Load Equipment.
3. Review the referenced publications.
4. Review safety procedures.

RELATED EVENTS:
3381-EQMT-1101  3381-EQMT-2401

REFERENCES:
1. TM 09211A-14 Tray Ration Heating System TM
2. TM 10-7360-204-13 Field Range (M-2) TM
3. TM 10757A-12 Food Transporter Parts List & Instructions
4. TM 4700-15/1_ Ground Equipment Record Procedures
5. ULSS 001302-15 User's Logistics Support Summary for Field Food Service System (FFSS)

HQCO-FOOD-3004: Establish an expeditionary feeding site

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 12 months

CONDITION: In a field environment, given operational requirements and Unit Density List (UDL).

STANDARD: To ensure mission accomplishment.

EVENT COMPONENTS:
1. Identify location.
2. Establish force protection.
3. Employ equipment.
4. Employ logistical support as needed.
5. Prepare the Family of Field Feeding Rations and Enhancements.
6. Redeploy equipment.

RELATED EVENTS:
3302-EXPD-2201 3302-GARR-2301 3381-ADMN-2015
3381-EXPD-1201 3381-EXPD-2501 3381-EXPD-2503

REFERENCES:
1. TM 09211A-14 Tray Ration Heating System TM
2. TM 10-7360-204-13 Field Range (M-2) TM
3. TM 10757A-12 Food Transporter Parts List & Instructions
4. TM 4700-15/1 Ground Equipment Record Procedures
5. TM 5-1080-200-13&P Operators' Organizational and Direct Support Manual for Lightweight Camouflage Screen Systems
6. ULSS 001302-15 User's Logistics Support Summary for Field Food Service System (FFSS)

HQCO-GCEM-3001: Provide field level maintenance support for cables

SUPPORTED MET(S): MCT 5.3.3.3 MCT 6.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: This event is for a maintenance section whose primary focus or additional support requirement is to provide field level maintenance support for cables.

CONDITION: Given a mission, personnel, and equipment.

STANDARD: Retaining materiel in or restoring it to a specified condition in
accordance with MCO P4790.2_MIMMS Field Procedures Manual.

**EVENT COMPONENTS:**
1. Perform inspection and classification on cables.
2. Perform servicing, adjustment, and tuning on cables.
3. Perform repair on cables.
4. Perform modification on cables.
5. Perform recovery and evacuation on cables.
6. Provide assistance in complex maintenance tasks.
7. Administer quality control program.
8. Supervise maintenance actions.
9. Manage ground electronics maintenance production.
10. Train ground electronics maintainers in ground electronics maintenance.
11. Train ground electronics maintainers in ground electronics maintenance.

**RELATED EVENTS:**
2800-ACT-2304  
2800-ADMN-2210  
2800-TRNG-2501  
28XX-ADMN-2003  
28XX-MAIN-2005  
28XX-MAIN-2006  
28XX-MAIN-2007  
28XX-MAIN-2008  
28XX-MAIN-2009  
28XX-MAIN-2037  
28XX-PERS-2001

**REFERENCES:**
1. Applicable technical references
2. GCSS-MC Aid Global Combat Support System-Marine Corps Job Aid
4. MCO P4790.2_MIMMS Field Procedures Manual
5. MCWP 4-1 Logistics Operations
6. MCWP 4-11 Tactical-Level Logistics
7. MCWP 4-11.4 Maintenance Operations
8. SL 1-2/3 Index of Authorized Publications in Stock
9. SL 4 Repair, Maintenance, and Management Lists

**HQCO-GCEM-3002:** Provide field level maintenance support for ground radio equipment

**SUPPORTED MET(S):**
MCT 5.3.3.3  
MCT 6.3.3

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

**DESCRIPTION:** This event is for a maintenance section whose primary focus or additional support requirement is to provide field level maintenance support for ground radio equipment.

**CONDITION:** Given a mission, personnel, and equipment.

**STANDARD:** Retaining materiel in or restoring it to a specified condition in accordance with MCO P4790.2_MIMMS Field Procedures Manual.

**EVENT COMPONENTS:**
1. Perform inspection and classification on ground radio equipment.
2. Perform servicing, adjustment, and tuning on ground radio equipment.
3. Perform repair on ground radio equipment.
4. Perform modification on ground radio equipment.
5. Perform recovery and evacuation on ground radio equipment.
6. Provide technical assistance during the IOM of ground radio equipment.
7. Provide assistance in complex maintenance tasks.
8. Administer quality control program.
10. Manage ground electronics maintenance production.
11. Train ground electronics maintainers in ground electronics maintenance.
12. Manage training for ground electronics maintenance personnel.

RELATED EVENTS:
2800-ACT-2304  2800-ADMN-2210  2800-OPS-2402
2800-TRNG-2501  2841-MAIN-1001  2841-MAIN-2001

REFERENCES:
1. Applicable technical references
2. GCSS-MC Aid Global Combat Support System-Marine Corps Job Aid
4. MCO P4790.2 MIMMS Field Procedures Manual
5. MCWP 4-1 Logistics Operations
6. MCWP 4-11 Tactical-Level Logistics
7. MCWP 4-11.4 Maintenance Operations
8. SL 1-2/3 Index of Authorized Publications in Stock
9. SL-4 Repair, Maintenance, and Management Lists

HQCO-GCEM-3003: Provide field level maintenance support for telecommunications equipment

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: This event is for a maintenance section whose primary focus or additional support requirement is to provide field level maintenance support for telecommunications equipment.

CONDITION: Given a mission, personnel, and equipment.

STANDARD: Retaining materiel in or restoring it to a specified condition in accordance with MCO P4790.2 MIMMS Field Procedures Manual.

EVENT COMPONENTS:
1. Perform inspection and classification on telecommunication equipment.
2. Perform servicing, adjustment, and tuning on telecommunication equipment.
3. Perform repair on telecommunication equipment.
4. Perform modification on telecommunication equipment.
5. Perform recovery and evacuation on telecommunication equipment.
6. Provide technical assistance during the IOM of telecommunication equipment.
equipment.
7. Provide assistance in complex maintenance tasks.
8. Administer quality control program.
10. Manage ground electronics maintenance production.
11. Train ground electronics maintainers in ground electronics maintenance.
12. Manage training for ground electronics maintenance personnel.

RELATED EVENTS:
2800-ACT-2304  2800-ADMN-2210  2800-OPS-2402
2800-TRNG-2501  2847-MAIN-1001  2847-MAIN-2001

REFERENCES:
1. Applicable technical references
2. GCSS-MC Aid Global Combat Support System-Marine Corps Job Aid
4. MCO P4790.2_ MIMMS Field Procedures Manual
5. MCWP 4-1 Logistics Operations
6. MCWP 4-11 Tactical-Level Logistics
7. MCWP 4-11.4 Maintenance Operations
8. SL 1-2/3 Index of Authorized Publications in Stock
9. SL-4 Repair, Maintenance, and Management Lists

HQCO-GCEM-3004: Provide field level maintenance support for IT equipment

SUPPORTED MET(S):
MCT 5.3.3.3  MCT 6.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: This event is for a maintenance section whose primary focus or additional support requirement is to provide field level maintenance support for IT equipment.

CONDITION: Given a mission, personnel, and equipment.

STANDARD: Retaining materiel in or restoring it to a specified condition in accordance with MCO P4790.2_ MIMMS Field Procedures Manual.

EVENT COMPONENTS:
1. Perform inspection and classification on IT equipment.
2. Perform servicing, adjustment, and tuning on IT equipment.
3. Perform repair on IT equipment.
4. Perform modification on IT equipment.
5. Perform recovery and evacuation on IT equipment.
6. Provide technical assistance during the IOM of IT equipment.
7. Provide assistance in complex maintenance tasks.
8. Administer quality control program.
10. Manage ground electronics maintenance production.
11. Train ground electronics maintainers in ground electronics maintenance.
12. Manage training for ground electronics maintenance personnel.

RELATED EVENTS:
2800-ACT-2304  2800-ADMN-2210  2800-OPS-2402
2800-TRNG-2501  2847-MAIN-2005  2847-MAIN-2006

REFERENCES:
1. Applicable technical references
2. GCSS-MC Aid Global Combat Support System-Marine Corps Job Aid
4. MCO P4790.2 MIMMS Field Procedures Manual
5. MCWP 4-1 Logistics Operations
6. MCWP 4-11 Tactical-Level Logistics
7. MCWP 4-11.4 Maintenance Operations
8. SL 1-2/3 Index of Authorized Publications in Stock
9. SL-4 Repair, Maintenance, and Management Lists

HQCO-MED-3001: Receive Casualties

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES   SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: This can be performed at any HSS facility including aid station, FRSS, STP by a crew of personnel up to the size of a platoon depending on the mission, situation and capabilities.

CONDITION: Given a facility, personnel and equipment.

STANDARD: To correctly identify triage categories of casualties for treatment upon arrival.

EVENT COMPONENTS:
1. Conduct triage
2. Treat casualties
3. Disposition casualties
4. Coordinate for evacuation as needed
5. Prepare casualty for evacuation
6. Submit reports if applicable

RELATED EVENTS:
8404-HSS-2002  8404-MED-2011  FMSO-HSS-2002
FMSO-HSS-2106

REFERENCES:
1. MCWP 4-11.1 Health Service Support Operations

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17413 Field Training Area

HQCO-MED-3002: Conduct temporary casualty holding

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: This can be performed at any HSS facility including aid station, FRSS, STP by a crew of personnel up to the size of a platoon depending on the mission, situation and capabilities.

CONDITION: Given a facility, personnel and equipment.

STANDARD: To maintain disposition of casualty and prepare for evacuation.

EVENT COMPONENTS:
1. Assess casualty.
2. Provide holding capability/facilities until evacuation or discharge.
4. Reassess casualty as needed.
5. Document treatment as necessary.
6. Prepare casualty for evacuation.

RELATED EVENTS:
FMSO-COSC-2001 FMSO-COSC-2101 FMSO-HSS-2001
FMSO-HSS-2002 FMSO-HSS-2104 FMSO-HSS-2108

REFERENCES:
1. MCWP 4-11.1 Health Service Support Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17413 Field Training Area

HQCO-MED-3003: Perform medical care

SUPPORTED MET(S): MCT 5.3.3.3

EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: This can be performed from anywhere to include the point of injury/illness or a HSS facility. It may be a crew of personnel up to the size of a squad depending on the mission and situation. A standardized approach shall be utilized by all personnel to ensure continuity of care.

CONDITION: Given a patient, personnel and equipment.

STANDARD: Ensuring injuries/illnesses are assessed and identified; patient
care is performed, decreasing the risk of further injury or death.

EVENT COMPONENTS:
1. Triage
2. Perform History/physical examination
3. Identify injury/illness
4. Render appropriate treatment per standard of care
5. Utilize ancillary services as indicated.
6. Document treatment
7. Disposition patient

RELATED EVENTS:
8404-HSS-2004 8404-HSS-2005 8404-HSS-2101
8404-HSS-2104 8404-HSS-2105 8404-MED-2001
8404-MED-2008 8404-MED-2009 8404-MED-2011
8404-MED-2012 8404-MED-2013 8404-MED-2014
8404-MED-2015 8404-MED-2017 8404-MED-2102
8404-MED-2103 FMSO-ADMN-2001 FMSO-HSS-2001
FMSO-HSS-2002 FMSO-HSS-2003 FMSO-HSS-2102
FMSO-HSS-2104 FMSO-HSS-2105 FMSO-HSS-2106
FMSO-HSS-2107 FMSO-MED-2102 FMSO-MED-2103

REFERENCES:
1. FM 8-10-1 Tactics, Techniques, and Procedures for the Medical Company
2. MCWP 4-11.1 Health Service Support Operations
3. TM 10-8340-211-13 Operator, Unit and Direct Support Maintenance Manual for the Tent, General Purpose

SUPPORT REQUIREMENTS:
RANGE/TRAINING AREA: Facility Code 17413 Field Training Area

HQCO-MED-3004: Conduct casualty evacuation
SUPPORTED MET(S): MCT 5.3.3.3
EVALUATION-CODED: YES SUSTAINMENT INTERVAL: 6 months
DESCRIPTION: This can be performed from anywhere to include the point of injury (POI) or a HSS facility. It may be a crew of personnel up to the size of a squad depending on the mission, situation and transport platform.
CONDITION: Given a casualty, personnel, equipment and a mode of transport.
STANDARD: To evacuate to a higher level of care.
EVENT COMPONENTS:
1. Submit casualty evacuation request.
2. Receive guidance from HHQ.
3. Prepare the casualty.
4. Prepare documentation.
5. Conduct casualty turnover.

**RELATED EVENTS:**

<table>
<thead>
<tr>
<th>Event Code</th>
<th>Event Code</th>
<th>Event Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>8404-HSS-2002</td>
<td>8404-HSS-2003</td>
<td>8404-HSS-2004</td>
</tr>
<tr>
<td>8404-MED-2010</td>
<td>8404-MED-2011</td>
<td>8404-MED-2012</td>
</tr>
<tr>
<td>8404-MED-2017</td>
<td>FMSO-HSS-2105</td>
<td></td>
</tr>
</tbody>
</table>

**REFERENCES:**

1. MCO P3040.4 Marine Corps Casualty Procedures Manual
2. MCWP 4-11.1 Health Service Support Operations
3. MCWP 4-11.2 Patient Movement
4. MCWP 4-11.8 Services in an Expeditionary Environment

**SUPPORT REQUIREMENTS:**

**RANGE/TRAINING AREA:** Facility Code 17413 Field Training Area

**HQCO-MED-3005:** Provide Immunizations

**SUPPORTED MET(S):** MCT 5.3.3.3

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

**DESCRIPTION:** Perform required immunizations.

**CONDITION:** Given a mission and supplies.

**STANDARD:** To maintain medical readiness.

**EVENT COMPONENTS:**

1. Gather immunization information on personnel.
2. Identify vaccines to be administered.
3. Administer vaccination.
4. Document as needed.

**RELATED EVENTS:** FMSO-ADMN-2002

**REFERENCES:**

1. BUMEDINST 6230.15 Immunizations and Chemoprophylaxis
2. MCDP 5 Planning
3. MCWP 4-11.1 Health Service Support Operations

**MTCO-MANT-3001:** Maintain motor transport equipment
SUPPORTED MET(S):
MCT 4.6.3  MCT 5.3.3.3

EVALUATION-CODED: NO  SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The MWSS Motor Transportation Company, Maintenance Platoon possesses an organic capability to conduct organizational maintenance and limited intermediate maintenance of assigned motor transport equipment and organizational maintenance of motor transport equipment support for supported unit(s), except for the elements of the MACG.

CONDITION: Provided with motor transport equipment and resources.

STANDARD: To an operational readiness status.

EVENT COMPONENTS:
1. Conduct field level maintenance.
2. Provide maintenance support teams.
3. Provide maintenance contact teams.
4. Establish external maintenance related programs.

RELATED EVENTS:
3526-MAIN-2010  3526-MAIN-2011  3526-MAIN-2012
3526-MAIN-2016  3526-MAIN-2017  3526-MAIN-2018
3526-MAIN-2022  3526-MAIN-2023  3526-MAIN-2024
3526-MAIN-2025  3526-MAIN-2026  3526-MAIN-2027

REFERENCES:
1. AETM Applicable Equipment Technical Manuals
2. AIEETM Applicable Interactive Electronic Technical Manual
3. ALO/I Applicable Lubrication Order/Instruction
4. ASL-3 Applicable Stock Listing -3
5. MCO 5311.1_ Total Force Structure Process (TFSP)
6. MCO P11262.2 Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment
8. MCO P4790.2_ MIMMS Field Procedures Manual
10. TM 11240-OD Principal Technical Characteristics of U.S. Marine Corps Motor Transportation Equipment

SUPPORT REQUIREMENTS:
OTHER SUPPORT REQUIREMENTS: Contract Logistics Support.

MISCELLANEOUS:
ADMINISTRATIVE INSTRUCTIONS: The related 2000 level Core Plus Skills
Events for MOS 3526 are to maintain the Crash Fire and Rescue vehicle. The MOS 3521 1000 level and 2000 level events support this collective event.

**MTCO-OPS-3001**: Conduct recovery operations

**SUPPORTED MET(S)**: MCT 5.3.3.3

**EVALUATION-CODED**: NO

**SUSTAINMENT INTERVAL**: 12 months

**DESCRIPTION**: Recovery is retrieving/freeing immobile, inoperative, or abandoned equipment from its current position and returning it to operation or to a maintenance site for repair. These actions typically involve towing, lifting, or winching. The MWSS MT Company has a vehicle recovery capability. Wreckers are used for recovering disabled, damaged, mired, or abandoned vehicles within the MWSS area of responsibility.

**CONDITION**: Given appropriate equipment and the basic issue items.

**STANDARD**: By moving the disabled vehicle to a designated location without injury to personnel or further damage to equipment.

**EVENT COMPONENTS**:

1. Complete crane inspection checklist.
2. Operate tactical wrecker in unusual conditions.
3. Operate tactical wrecker on road.
4. Operate tactical wrecker off road.
5. Recover vehicle by lift tow.
6. Recover vehicle by flat tow.
7. Recover vehicle with winches.
8. Recover vehicle by using block and tackle.
9. Operate auxiliary tools on tactical wrecker.
11. Inventory/PMCS basic issue items.

**PREREQUISITE EVENTS**:

3510-OPER-2504 3531-OPER-2212

**REFERENCES**:

1. AETM Applicable Equipment Technical Manuals
2. AIETM Applicable Interactive Electronic Technical Manual
3. MCRP 4-11.4A Recovery and Battle Damage Assessment and Repair
4. TM 08089B-01/1A Operators Manual for Semitrailer, Tank: 5,000 Gallon Fuel Dispensing, Under/Overwing Aircraft (MK970)
5. TM 10629-10C Operator Manual for the Truck, Cargo, 7-Ton
6. TM 10629-CD Interactive Electronic Technical Manual (IETM) for Re-Supply Vehicle

**SUPPORT REQUIREMENTS**:

**RANGE/TRAINING AREA**: Facility Code 17420 Maneuver/Training Area, Heavy Forces
EQUIPMENT: Motor transport equipment and operators, and personal protective equipment (PPE).

MTCO-OPS-3002: Conduct ground fueling operations

SUPPORTED MET(S):
MCT 4.6.3 MCT 5.3.3.3

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: The MWSS has the capability to provide ground fueling to ACE assets (i.e., mobile electric generators, tactical motor transport, field messing facilities, and AGS equipment). SIXCON modules are the principal assets used by the MWSS to meet the ACE's ground refueling requirements. The SIXCON consists of five 900-gallon containers and one pump module per system. Each MWSS rates four SIXCONs to support the ACE ground refueling operations for a total storage capacity of 18,000 gallons. Because SIXCONs can be loaded on either medium tactical vehicle replacements (MTVRs) or Logistics Vehicle Systems Replacement (LVSRs), it is well suited for FARP operations over rough terrain.

CONDITION: With a refueling plan, bulk fuel, distribution system, safety equipment and personnel.

STANDARD: To dispense fuel in order to meet mission requirements.

EVENT COMPONENTS:
1. Coordinate with supported unit.
2. Determine personnel, tools, and equipment requirement(s).
3. Ensure quality control measures are in compliance to transport.
4. Transport hazardous cargo.
5. Place environmental control devices.
6. Place firefighting equipment.
7. Ensure quality control measures are in compliance to dispense fuel.
8. Dispense fuel.
9. Implement inventory control procedures.
10. Provide reports as required.

PREREQUISITE EVENTS: AOPS-FUEL-3001

RELATED EVENTS: 1391-XENG-1002 1391-XENG-1004

REFERENCES:
1. FM 10-69 Petroleum Supply Point Equipment and Operations
2. MCWP 4-11 Tactical-Level Logistics
3. MCWP 4-11.6 Petroleum and Water Logistics Operations
4. MIL STD 3004 Quality Surveillance Handbook for Fuels, Lubricants and Related Products
5. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
6. SOP Standard Operating Procedures (SOP)
7. TM 3835-01/1A Marine Corps Tactical Fuel Systems
SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17933 POL Training Area

EQUIPMENT: Tactical Fuel System (TFS), Engineer MHE and operators, motor transport equipment and operators, and personal protective equipment (PPE).

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Other personnel required: Corpsman and security personnel.
**ACRONYMS AND ABBREVIATIONS**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABGD</td>
<td>Air Base Ground Defense</td>
</tr>
<tr>
<td>ABMP</td>
<td>Air Base Master Plan</td>
</tr>
<tr>
<td>ACE</td>
<td>Aviation Combat Element</td>
</tr>
<tr>
<td>ADR</td>
<td>Airfield Damage Repair</td>
</tr>
<tr>
<td>AGS</td>
<td>Aviation Ground Support</td>
</tr>
<tr>
<td>AGSOC</td>
<td>Aviation Ground Support Operations Center</td>
</tr>
<tr>
<td>AO</td>
<td>Area of Operations</td>
</tr>
<tr>
<td>AOPS</td>
<td>Airfield Operations</td>
</tr>
<tr>
<td>ARFF</td>
<td>Aircraft Rescue and Fire Fighting</td>
</tr>
<tr>
<td>ASP</td>
<td>Ammunition Supply Point</td>
</tr>
<tr>
<td>BDOC</td>
<td>Base Defense Operations Center</td>
</tr>
<tr>
<td>BRAAT</td>
<td>Base Recovery After Attack</td>
</tr>
<tr>
<td>CA</td>
<td>Contamination Avoidance</td>
</tr>
<tr>
<td>CAEMS</td>
<td>Computer-Aided Embarkation Management System</td>
</tr>
<tr>
<td>CAS</td>
<td>Close Air Support</td>
</tr>
<tr>
<td>CASEVAC</td>
<td>Casualty Evacuation</td>
</tr>
<tr>
<td>CBR</td>
<td>California Bearing Ratio</td>
</tr>
<tr>
<td>CBRN</td>
<td>Chemical, Biological, Radiological, and Nuclear</td>
</tr>
<tr>
<td>CBRNWRS</td>
<td>CBRN Warning and Reporting System</td>
</tr>
<tr>
<td>CC NET</td>
<td>Crater Crew Network</td>
</tr>
<tr>
<td>CCIR</td>
<td>Commander’s Critical Information Requirements</td>
</tr>
<tr>
<td>CCCR</td>
<td>Combatant Commander</td>
</tr>
<tr>
<td>CCGS</td>
<td>Command Communications Service Designator</td>
</tr>
<tr>
<td>CGIP</td>
<td>Commanding Generals Inspection Program</td>
</tr>
<tr>
<td>CMC</td>
<td>Commandant of the Marine Corps</td>
</tr>
<tr>
<td>CMOB</td>
<td>Countermobility</td>
</tr>
<tr>
<td>CMR</td>
<td>Consolidated Memorandum Receipt</td>
</tr>
<tr>
<td>CO</td>
<td>Commanding Officer</td>
</tr>
<tr>
<td>COCOM</td>
<td>Combatant Commander</td>
</tr>
<tr>
<td>COMM</td>
<td>Communications</td>
</tr>
<tr>
<td>COMSEC</td>
<td>Communications Security</td>
</tr>
<tr>
<td>COP</td>
<td>Common Operational Picture</td>
</tr>
<tr>
<td>CSS</td>
<td>Combat Service Support</td>
</tr>
<tr>
<td>CSSOC</td>
<td>Combat Service Support Operations Center</td>
</tr>
<tr>
<td>DART</td>
<td>Damage Assessment Response Team</td>
</tr>
<tr>
<td>DASC</td>
<td>Direct Air Support Center</td>
</tr>
<tr>
<td>DAT</td>
<td>Damage Assessment Team</td>
</tr>
<tr>
<td>DART</td>
<td>Damage Assessment and Response Team</td>
</tr>
<tr>
<td>DEMO</td>
<td>Demolitions</td>
</tr>
<tr>
<td>DTD</td>
<td>Detailed Troop Decontamination</td>
</tr>
<tr>
<td>DoD</td>
<td>Department of Defense</td>
</tr>
<tr>
<td>DRRS</td>
<td>Defense Readiness Reporting System</td>
</tr>
<tr>
<td>EAF</td>
<td>Expeditionary Airfield</td>
</tr>
<tr>
<td>ECP</td>
<td>Entry Control Point</td>
</tr>
<tr>
<td>ECU</td>
<td>Environmental Control Unit</td>
</tr>
<tr>
<td>ENGR</td>
<td>Engineer</td>
</tr>
</tbody>
</table>

**APPENDIX A**
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>EOD</td>
<td>Explosive Ordnance Disposal</td>
</tr>
<tr>
<td>EoIP</td>
<td>Everything over Internet Protocol</td>
</tr>
<tr>
<td>EPDS</td>
<td>Emergency Personnel Decontamination Station</td>
</tr>
<tr>
<td>ERO</td>
<td>Equipment Repair Order</td>
</tr>
<tr>
<td>ESB</td>
<td>Engineer Support Battalion</td>
</tr>
<tr>
<td>FARP</td>
<td>Forward Arming and Refueling Point</td>
</tr>
<tr>
<td>FIE</td>
<td>Fly-In Echelon</td>
</tr>
<tr>
<td>FFSS</td>
<td>Field Food Service System</td>
</tr>
<tr>
<td>FLIP</td>
<td>Flight Information Publication</td>
</tr>
<tr>
<td>FLOLS</td>
<td>Fresnel Lens Optical Landing System</td>
</tr>
<tr>
<td>FML</td>
<td>Field Marker Lights</td>
</tr>
<tr>
<td>FOB</td>
<td>Forward Operating Base</td>
</tr>
<tr>
<td>FOD</td>
<td>Foreign Object Damage</td>
</tr>
<tr>
<td>FOE</td>
<td>Follow-On Echelon</td>
</tr>
<tr>
<td>FOOD</td>
<td>Food Services</td>
</tr>
<tr>
<td>FPCON</td>
<td>Force Protection Conditions</td>
</tr>
<tr>
<td>FRP</td>
<td>Fiberglass Reinforced Polyester</td>
</tr>
<tr>
<td>FUEL</td>
<td>Bulk Fuel</td>
</tr>
<tr>
<td>GCE</td>
<td>Ground Combat Element</td>
</tr>
<tr>
<td>GERS</td>
<td>Ground Expedient Refueling System</td>
</tr>
<tr>
<td>HERS</td>
<td>Helicopter Expeditionary Refueling System</td>
</tr>
<tr>
<td>HF</td>
<td>High Frequency</td>
</tr>
<tr>
<td>HLN</td>
<td>Host Nation</td>
</tr>
<tr>
<td>HQCO</td>
<td>Headquarters &amp; Service Company</td>
</tr>
<tr>
<td>HQMC</td>
<td>Headquarters, Marine Corps</td>
</tr>
<tr>
<td>IAW</td>
<td>In Accordance With</td>
</tr>
<tr>
<td>IDC</td>
<td>Independent Duty Corpsman</td>
</tr>
<tr>
<td>ILS</td>
<td>Instrument Landing System</td>
</tr>
<tr>
<td>IM</td>
<td>Information Management</td>
</tr>
<tr>
<td>IMA</td>
<td>Intermediate Maintenance Activity</td>
</tr>
<tr>
<td>IND</td>
<td>Improvised Nuclear Device</td>
</tr>
<tr>
<td>IOM</td>
<td>Install Operate Maintain</td>
</tr>
<tr>
<td>IPE</td>
<td>Individual Protective Equipment</td>
</tr>
<tr>
<td>IR</td>
<td>Infrared</td>
</tr>
<tr>
<td>ISDN</td>
<td>Integrated Services Digital Network</td>
</tr>
<tr>
<td>JFC</td>
<td>Joint Force Commander</td>
</tr>
<tr>
<td>JOPTES</td>
<td>Joint Operation Planning and Execution System</td>
</tr>
<tr>
<td>JP</td>
<td>Joint Publication</td>
</tr>
<tr>
<td>JRA</td>
<td>Joint Rear Area</td>
</tr>
<tr>
<td>JTF</td>
<td>Joint Task Force</td>
</tr>
<tr>
<td>LAAD</td>
<td>Low Altitude Air Defense</td>
</tr>
<tr>
<td>LAN</td>
<td>Local Area Network</td>
</tr>
<tr>
<td>LCE</td>
<td>Logistics Combat Element</td>
</tr>
<tr>
<td>LCN</td>
<td>Load Classification Number</td>
</tr>
<tr>
<td>LIC</td>
<td>Licensing</td>
</tr>
<tr>
<td>LTI</td>
<td>Limited Technical Inspection</td>
</tr>
<tr>
<td>LZ</td>
<td>Landing Zone</td>
</tr>
<tr>
<td>MACG</td>
<td>Marine Air Control Group</td>
</tr>
<tr>
<td>MAG</td>
<td>Marine Aircraft Group</td>
</tr>
<tr>
<td>MAGTF</td>
<td>Marine Air-Ground Task Force</td>
</tr>
<tr>
<td>MALS</td>
<td>Marine Aviation Logistics Squadron</td>
</tr>
<tr>
<td>MANT</td>
<td>Maintenance</td>
</tr>
<tr>
<td>MARDIV</td>
<td>Marine Division</td>
</tr>
</tbody>
</table>

14 July 2014

NAVMC 3500.117
MARFOR ........................................ Marine Corps Forces
MATC ........................................ Marine Air Traffic Control
MAW ........................................ Marine Aircraft Wing
MAWTS-1 ................................ Marine Aviation Weapons and Tactics Squadron One
MCEAGS ................................ Marine Corps Expeditionary Arresting Gear System
MCO ........................................ Marine Corps Order
MCPF ........................................ Marine Corps Planning Process
MCT ........................................ Medium Crawler Tractor
MCWP ........................................ Marine Corps Warfighting Publication
MDSS II ..................................... MAGTF Deployment Support System II
MED ........................................ Medical
MEDEVAC ..................................... Medical Evacuation
MEF ........................................ Marine Expeditionary Force
METL ........................................ Mission Essential Task List
METT-T ...................................... Mission, Enemy, Terrain and Weather, Troops and Support Time Available
MEU ........................................ Marine Expeditionary Unit
MEU (SOC) ................................... Marine Expeditionary Unit (Special Operations Capable)
MEZ ........................................ Missile Engagement Zone
MHE ........................................ Materials Handling Equipment
MLG ........................................ Marine Logistics Group
MMT ........................................ Marine Air Traffic Control Mobile Team
MMV ........................................ Millennia Military Vehicle
MOBL ........................................ Mobility
MOJT ........................................ Managed On the Job Training
MOS ........................................ Minimum Operating Strip
MOSLS ...................................... Minimum Operating Strip Lighting System
MP ........................................ Military Police
MPF ........................................ Maritime Prepositioning Force
MPS ........................................ Maritime Prepositioning Ship
MRO ........................................ Noncommissioned Officer
MRO ........................................ Medical Review Officer
MTR ........................................ Main Supply Route
MT ........................................ Motor Transport
MTL ........................................ Multi-Terrain Loader
MTCO ....................................... Motor Transportation Company
MTVR ....................................... Medium Tactical Vehicle Replacement
MWCS ..................................... Marine Wing Communications Squadron
MWSS ..................................... Marine Wing Support Squadron
NAMP ...................................... Naval Aviation Maintenance Program
NATO ....................................... North Atlantic Treaty Organization
NATOPS .................................... Naval Air Training and Operating Procedures Standardization
NAVIR ...................................... Naval Air Systems Command
NAVMC ...................................... Navy and Marine Corps
NCF ........................................ Naval Construction Force
NCO ........................................ Noncommissioned Officer
NIPRNET ................................... Non-secure Internet Protocol Router Network
NVG ........................................ Night Vision Goggle
Occupational Field
OIC ........................................ Officer In Charge
OMA ........................................ Organizational Maintenance Activity
OPFOR ...................................... Operating Forces
OPLAN ...................................... Operations Plan
OPP ........................................ Off Load Preparation Party
OPS ........................................ Operations
ORA .............................. Operational Risk Assessment
PBX ................................ Private Branch Exchange
POL ................................ Petroleum, Oils, and Lubricants
PPE ................................ Personal Protective Equipment
PQDR .............................. Product Quality Deficiency Report
QASP .............................. Quality Assurance Surveillance Plan
RAOC .............................. Rear Area Operations Center
RASC .............................. Rear Area Security Coordinator
RASP .............................. Rear Area Security Platoons
RBE ............................... Remain Behind Equipment
RECN ............................. Reconnaissance
RRR ............................... Rapid Runway Repair
S-1 ................................ Manpower or Personnel Staff Officer
S-2 ................................ Intelligence Staff Officer
S-3 ................................ Operations Staff Officer
S-4 ................................ Logistics Staff Officer
S-6 ................................ Communications and Information Systems Staff Officer
SAA ................................ Satellite Access Authorization
SHF ................................ Super High Frequency
SIPRNET ............................ Secret Internet Protocol Router Network
SIXCON ............................ Six Containers Together
SLD ................................ Systems Link Designator
SLRP ............................... Survey, Liaison, and Reconnaissance Party
SNCO ............................... Staff Noncommissioned Officer
SNCOIC ............................ Staff Noncommissioned Officer In Charge
SOP ................................ Standing Operating Procedure
SORTS ............................. Status of Resources and Training System
SPT NET ............................ Support Crew Network
SQDR ............................... Squadron
ST .................................... Single Tandem Gear Rating
SURV ............................... Survivability
TACC ............................... Tactical Air Command Center
TAPDS ............................. Tactical Airfield Fuel Dispensing System
TC-AIMS .......................... Transportation Coordinator Automated Information for Movement System
TDT ................................. Twin Delta Tandem
T/E .................................. Table of Equipment
TFS .................................. Tactical Fuel System
TLZ .................................. Tactical Landing Zone
T/O .................................. Table of Organization
TO&E ................................. Table of Organization and Equipment
TRAM ................................ Tractor Rubber Tire Articulated Mount
TSO .................................. Tactical Security Officer
TT .................................... Twin Tandem
UDL ................................ Unit Density List
UHF .................................. Ultrahigh Frequency
UMCC ............................... Unit Movement Control Center
US .................................. United States
USAF ............................... United States Air Force
USMC .............................. United States Marine Corps
UTIL ................................ Utilities
UXO .................................. Unexploded Ordnance
VCP .................................. Vehicle Control Point
VHF .................................. Very High Frequency
VTC .................................. Video Teleconferencing
NAVMC 3500.117
14 July 2014

VLA . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Visual Landing Aids
XENG . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . General Engineering
APPENDIX B

TERMS AND DEFINITIONS

Terms in this glossary are subject to change as applicable orders and directives are revised. Terms established by Marine Corps orders or directives take precedence after definitions found in Joint Publication 1-02, DOD Dictionary of Military and Associated Terms.

A

After Action Review. A professional discussion of training events conducted after all training to promote learning among training participants. The formality and scope increase with the command level and size of the training evolution. For longer exercises, they should be planned for at predetermined times during an exercise. The results of the AAR shall be recorded on an after action report and forwarded to higher headquarters. The commander and higher headquarters use the results of an AAR to reallocate resources, reprioritize their training plan, and plan for future training.

Assessment. An informal judgment of the unit’s proficiency and resources made by a commander or trainer to gain insight into the unit’s overall condition. It serves as the basis for the midrange plan. Commanders make frequent use of these determinations during the course of the combat readiness cycle in order to adjust, prioritize or modify training events and plans.

C

Chaining. A process that enables unit leaders to effectively identify subordinate collective events and individual events that support a specific collective event. For example, collective training events at the 4000-Level are directly supported by collective events at the 3000-Level. When a higher level event by its nature requires the completion of lower level events, they are “chained”; Sustainment credit is given for all lower level events chained to a higher event.

Collective Event. A clearly defined, discrete, and measurable activity, action, or event (i.e., task) that requires organized team or unit performance and leads to accomplishment of a mission or function. A collective task is derived from unit missions or higher-level collective tasks. Task accomplishment requires performance of procedures composed of supporting collective or individual tasks. A collective task describes the exact performance a group must perform in the field under actual operational conditions. The term “collective” does not necessarily infer that a unit accomplishes the event. A unit, such as a squad or platoon conducting an attack; may accomplish a collective event or, it may be accomplished by an individual to accomplish a unit mission, such as a battalion supply officer completing a reconciliation of the battalion’s CMR. Thus, many collective events will have titles that are the same as individual events; however, the
standard and condition will be different because the scope of the collective event is broader.

**Collective Training Standards (CTS).** Criteria that specify mission and functional area unit proficiency standards for combat, combat support, and combat service support units. They include tasks, conditions, standards, evaluator instruction, and key indicators. CTS are found within collective training events in T&R Manuals.

**Combat Readiness Cycle.** The combat readiness cycle depicts the relationships within the building block approach to training. The combat readiness cycle progresses from T&R Manual individual core skills training, to the accomplishment of collective training events, and finally, to a unit’s participation in a contingency or actual combat. The combat readiness cycle demonstrates the relationship of core capabilities to unit combat readiness. Individual core skills training and the training of collective events lead to unit proficiency and the ability to accomplish the unit’s stated mission.

**Combat Readiness Percentage (CRP).** The CRP is a quantitative numerical value used in calculating collective training readiness based on the E-Coded events that support the unit METL. CRP is a concise measure of unit training accomplishments. This numerical value is only a snapshot of training readiness at a specific time. As training is conducted, unit CRP will continuously change.

**Condition.** The condition describes the training situation or environment under which the training event or task will take place. Expands on the information in the title by identifying when, where and why the event or task will occur and what materials, personnel, equipment, environmental provisions, and safety constraints must be present to perform the event or task in a real-world environment. Commanders can modify the conditions of the event to best prepare their Marines to accomplish the assigned mission (e.g. in a desert environment; in a mountain environment; etc.).

**Core Competency.** Core competency is the comprehensive measure of a unit’s ability to accomplish its assigned MET. It serves as the foundation of the T&R Program. Core competencies are those unit core capabilities and individual core skills that support the commander’s METL and T/O mission statement. Individual competency is exhibited through demonstration of proficiency in specified core tasks and core plus tasks. Unit proficiency is measured through collective tasks.

**Core Capabilities.** Core capabilities are the essential functions a unit must be capable of performing during extended contingency/combat operations. Core unit capabilities are based upon mission essential tasks derived from operational plans; doctrine and established tactics; techniques and procedures.

**Core Plus Capabilities.** Core plus capabilities are advanced capabilities that are environment, mission, or theater specific. Core plus capabilities may entail high-risk, high-cost training for missions that are less likely to be assigned in combat.
Core Plus Skills. Core plus skills are those advanced skills that are environment, mission, rank, or billet specific. 2000-Level training is designed to make Marines proficient in core skills in a specific billet or at a specified rank at the Combat Ready level. 3000-8000-Level training produces combat leaders and fully qualified section members at the Combat Qualified level. Marines trained at the Combat Qualified level are those the commanding officer feels are capable of accomplishing unit-level missions and of directing the actions of subordinates. Many core plus tasks are learned via MOJT, while others form the base for curriculum in career level MOS courses taught by the formal school.

D

Defense Readiness Reporting System (DRRS). A comprehensive readiness reporting system that evaluates readiness on the basis of the actual missions and capabilities assigned to the forces. It is a capabilities-based, adaptive, near real-time reporting system for the entire Department of Defense.

Deferred Event. A T&R event that a commanding officer may postpone when in his or her judgment, a lack of logistic support, ammo, ranges, or other training assets requires a temporary exemption. CRP cannot be accrued for deferred “E-Coded” events.

Delinquent Event. An event becomes delinquent when a unit exceeds the sustainment interval for that particular event. The individual or unit must update the delinquent event by first performing all prerequisite events. When the unit commander deems that performing all prerequisite is unattainable, then the delinquent event will be re-demonstrated under the supervision of the appropriate evaluation authority.

E

E-Coded Event. An "E-Coded” event is a collective T&R event that is a noted indicator of capability or, a noted collective skill that contributes to the unit’s ability to perform the supported MET. As such, only “E-Coded” events are assigned a CRP value and used to calculate a unit’s CRP.

Evaluation. Evaluation is a continuous process that occurs at all echelons, during every phase of training and can be both formal and informal. Evaluations ensure that Marines and units are capable of conducting their combat mission. Evaluation results are used to reallocate resources, reprioritize the training plan, and plan for future training.

Event (Training). 1) An event is a significant training occurrence that is identified, expanded and used as a building block and potential milestone for a unit’s training. An event may include formal evaluations. 2) An event within the T&R Program can be an individual training evolution, a collective training evolution or both. Through T&R events, the unit commander ensures that individual Marines and the unit progress from a combat capable status to a Fully Combat Qualified (FCQ) status.

Event Component. The major procedures (i.e., actions) that must occur to perform a Collective Event to standard.
Exercise Commander (EC). The Commanding General, Marine Expeditionary Force or his appointee will fill this role, unless authority is delegated to the respective commander of the Division, Wing, or FSSG. Responsibilities and functions of the EC include: 1) designate unit(s) to be evaluated, 2) may designate an exercise director, 3) prescribe exercise objectives and T&R events to be evaluated, 4) coordinate with commands or agencies external to the Marine Corps and adjacent Marine Corps commands, when required.

Exercise Director (ED). Designated by the EC to prepare, conduct, and report all evaluation results. Responsibilities and functions of the ED include: 1) Publish a letter of instruction (LOI) that: delineates the T&R events to be evaluated, establishes timeframe of the exercise, lists responsibilities of various elements participating in the exercise, establishes safety requirements/guidelines, and lists coordinating instructions. 2) Designate the TEC and TECG to operate as the central control agency for the exercise. 3) Assign evaluators, to include the senior evaluator, and ensure that those evaluators are properly trained. 4) Develop the general exercise scenario taking into account any objectives/events prescribed by the EC. 5) Arrange for all resources to include: training areas, airspace, aggressor forces, and other required support.

Marine Corps Ground Training and Readiness (T&R) Program. The T&R Program is the Marine Corps’ primary tool for planning and conducting training, for planning and conducting training evaluation, and for assessing training readiness. The program will provide the commander with standardized programs of instruction for units within the ground combat, combat support, and combat service support communities. It consolidates the ITS, CTS, METL and other individual and unit training management tools. T&R is a program of standards that systematizes commonly accepted skills, is open to innovative change, and above all, tailors the training effort to the unit’s mission. Further, T&R serves as a training guide and provides commanders an immediate assessment of unit combat readiness by assigning a CRP to key training events. In short, the T&R Program is a building block approach to training that maximizes flexibility and produces the best-trained Marines possible.

Mission Essential Task(s) MET(s). A MET is a collective task in which an organization must be proficient in order to accomplish an appropriate portion of its wartime mission(s). MET listings are the foundation for the T&R Manual; all events in the T&R Manual support a MET.

Mission Essential Task List (METL). Descriptive training document that provides units a clear, war fighting focused description of collective actions necessary to achieve wartime mission proficiency. The service-level METL, that which is used as the foundation of the T&R Manual, is developed using Marine Corps doctrine, operational plans, T/Os, UJTL, UNTL, and MCTL. For community based T&R Manuals, an occupational field METL is developed to focus the community’s collective training standards. Commanders develop their unit METL from the service-level METL, operational plans, contingency plans, and SOPs.
Operational Readiness (DOD, NATO). OR is the capability of a unit/formation, ship, weapon system, or equipment to perform the missions or functions for which it is organized or designed. May be used in a general sense or to express a level or degree of readiness.

Prerequisite Event. Prerequisites are the academic training and/or T&R events that must be completed prior to attempting the event.

Readiness (DOD). Readiness is the ability of U.S. military forces to fight and meet the demands of the national military strategy. Readiness is the synthesis of two distinct but interrelated levels: a) Unit readiness--The ability to provide capabilities required by combatant commanders to execute assigned missions. This is derived from the ability of each unit to deliver the outputs for which it was designed. b) Joint readiness--The combatant commander’s ability to integrate and synchronize ready combat and support forces to execute assigned missions.

Section Skill Tasks. Section skills are those competencies directly related to unit functioning. They are group rather than individual in nature, and require participation by a section (S-1, S-2, S-3, etc).

Simulation Training. Simulators provide the additional capability to develop and hone core and core plus skills. Accordingly, the development of simulator training events for appropriate T&R syllabi can help maintain valuable combat resources while reducing training time and cost. Therefore, in cases where simulator fidelity and capabilities are such that simulator training closely matches that of actual training events, T&R Manual developers may include the option of using simulators to accomplish the training. CRP credit will be earned for E-Coded simulator events based on assessment of relative training event performance.

Standard. A standard is a statement that establishes criteria for how well a task or learning objective must be performed. The standard specifies how well, completely, or accurately a process must be performed or product produced. For higher-level collective events, it describes why the event is being done and the desired end-state of the event. Standards become more specific for lower-level events and outline the accuracy, time limits, sequencing, quality, product, process, restrictions, etc., that indicate the minimum acceptable level of performance required of the event. At a minimum, both collective and individual training standards consist of a task, the condition under which the task is to be performed, and the evaluation criteria that will be used to verify that the task has been performed to a satisfactory level.

Sustainment Training. Periodic retraining or demonstration of an event required maintaining the minimum acceptable level of proficiency or
capability required to accomplish a training objective. Sustainment training goes beyond the entry-level and is designed to maintain or further develop proficiency in a given set of skills.

**Systems Approach to Training (SAT).** An orderly process for analyzing, designing, developing, implementing, and evaluating a unit’s training program to ensure the unit, and the Marines of that unit acquire the knowledge and skills essential for the successful conduct of the unit’s wartime missions.

**Training Task.** This describes a direct training activity that pertains to an individual Marine. A task is composed of 3 major components: a description of what is to be done, a condition, and a standard.

**Technical Exercise Controller (TEC).** The TEC is appointed by the ED, and usually comes from his staff or a subordinate command. The TEC is the senior evaluator within the TECG and should be of equal or higher grade than the commander(s) of the unit(s) being evaluated. The TEC is responsible for ensuring that the evaluation is conducted following the instructions contained in this order and MCO 1553.3A. Specific T&R Manuals are used as the source for evaluation criteria.

**Tactical Exercise Control Group (TECG).** A TECG is formed to provide subject matter experts in the functional areas being evaluated. The benefit of establishing a permanent TECG is to have resident, dedicated evaluation authority experience, and knowledgeable in evaluation technique. The responsibilities and functions of the TECG include: 1) developing a detailed exercise scenario to include the objectives and events prescribed by the EC/ED in the exercise LOI; 2) conducting detailed evaluator training prior to the exercise; 3) coordinating and controlling role players and aggressors; 4) compiling the evaluation data submitted by the evaluators and submitting required results to the ED; 5) preparing and conducting a detailed exercise debrief for the evaluated unit(s).

**Training Plan.** Training document that outlines the general plan for the conduct of individual and collective training in an organization for specified periods of time.

**Unit CRP.** Unit CRP is a percentage of the E-Coded collective events that support the unit METL accomplished by the unit. Unit CRP is the average of all MET CRP.

**Unit Evaluation.** All units in the Marine Corps must be evaluated, either formally or informally, to ensure they are capable of conducting their combat mission. Informal evaluations should take place during all training events. The timing of formal evaluations is critical and should, when appropriate, be directly related to the units’ operational deployment cycle. Formal evaluations should take place after the unit has been staffed with the majority of its personnel, has had sufficient time to train to individual and collective standards, and early enough in the training cycle so there is sufficient time to correctly identified weaknesses prior to deployment. All
combat units and units’ task organized for combat require formal evaluations prior to operational deployments.

**Unit Training Management (UTM).** Unit training management is the use of the SAT and Marine Corps training principles in a manner that maximizes training results and focuses the training priorities of the unit on its wartime mission. UTM governs the major peacetime training activity of the Marine Corps and applies to all echelons of the Total Force.

**Waived Event.** An event that is waived by a commanding officer when in his or her judgment, previous experience or related performance satisfies the requirement of a particular event.
1. The references in this appendix are required to train the collective events.

<table>
<thead>
<tr>
<th>PUBLICATION ID</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard Number 147 - Control of Hazardous Energy (Lockout/Tagout)</td>
</tr>
<tr>
<td></td>
<td>Standard Number 269 - Electrical Power Generation, Transmission,</td>
</tr>
<tr>
<td></td>
<td>and Distribution</td>
</tr>
<tr>
<td></td>
<td>Subpart S, (Standard Numbers 301-399) - Electrical</td>
</tr>
<tr>
<td>40 CFR 82</td>
<td>Chapter 40, Code of Federal Regulations, Part Number 82 (Stratospheric Ozone)</td>
</tr>
<tr>
<td>42 USC 85 VI 7671</td>
<td>Title 42, United States Code, Chapter 85, Subchapter VI, Section 7671 (Ozone Protection)</td>
</tr>
<tr>
<td>5-446</td>
<td>Military Non-Standard Fixed Bridge</td>
</tr>
<tr>
<td>62 FR 6621</td>
<td>Military Munitions Rule (MR)</td>
</tr>
</tbody>
</table>

A

- AEODPS 60: Series Automated EOD Publication System
- AETM: Applicable Equipment Technical Manuals
- AIETM: Applicable Interactive Electronic Technical Manual
- AIRS 930 C/L CBRN: Automated Inspection Reporting System (AIRS) 930 Checklist Chemical, Biological, Radiological, and Nuclear (CBRN) Defense
- ALO/I: Applicable Lubrication Order/Instruction
- Applicable Technical References
- Applicable Technical Manuals
- Appropriate TM/Manufacture's Manual for Chainsaw
- AR 200-1: Environmental Protection and Enhancement
- ASL-3: Applicable Stock Listing -3

B

- BUMEDINST 6230.15A: Immunizations and Chemoprophylaxis

C

- CJCSM 3150.02: Global Status of Resources and Training System
- CJCSM 6231 (Series): Manual for Employing Joint Tactical Communications

D

- DODDIR 3150.5: DOD Response to Improvised Nuclear Device (IND) Incidents
- DODDIR 3150.8: DOD Response to Radiological Accidents
- DoDI 6055.06: DoD Fire and Emergency Services (F&ES) Program
<table>
<thead>
<tr>
<th>PUBLICATION ID</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>DoDI 6055.1</td>
<td>Dust Abatement Handbook</td>
</tr>
<tr>
<td>EKMS-1 (series)</td>
<td>EKMS Policy and Procedures for Navy EKMS Tiers 2 &amp; 3</td>
</tr>
<tr>
<td>EMC</td>
<td>Electric Motor Controls by American Technical Publishers, Inc.</td>
</tr>
<tr>
<td>FEDLOG</td>
<td>Federal Logistic Data</td>
</tr>
<tr>
<td>FM 10-52</td>
<td>Water Supply in Theaters of Operation</td>
</tr>
<tr>
<td>FM 10-52-1</td>
<td>Water Supply Point Equipment and Operations</td>
</tr>
<tr>
<td>FM 10-67-2</td>
<td>Petroleum Laboratory Testing and Operations</td>
</tr>
<tr>
<td>FM 10-68</td>
<td>Aircraft Refueling</td>
</tr>
<tr>
<td>FM 10-69</td>
<td>Petroleum Supply Point Equipment and Operations</td>
</tr>
<tr>
<td>FM 21-60</td>
<td>Visual Signals</td>
</tr>
<tr>
<td>FM 3-11.4</td>
<td>Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection</td>
</tr>
<tr>
<td>FM 3-21.75</td>
<td>The Warrior Ethos and Soldier Combat Skills</td>
</tr>
<tr>
<td>FM 3-22.31</td>
<td>40-mm Grenade Launcher, M203</td>
</tr>
<tr>
<td>FM 3-22.65</td>
<td>Browning Machine Gun, Caliber .50 HB, M2</td>
</tr>
<tr>
<td>FM 3-22.68</td>
<td>Light and Medium machineguns</td>
</tr>
<tr>
<td>FM 5-100</td>
<td>Engineers in Combat Operations</td>
</tr>
<tr>
<td>FM 5-424</td>
<td>Theater of Operations Electrical Systems</td>
</tr>
<tr>
<td>FM 55-30</td>
<td>Army Motor Transport Units and Operations</td>
</tr>
<tr>
<td>FM 8-10-1</td>
<td>Tactics, Techniques, and Procedures for the Medical Company</td>
</tr>
<tr>
<td>GCSS-MC Aid</td>
<td>Global Combat Support System-Marine Corps Job Aid</td>
</tr>
<tr>
<td>GCSS-MC Procedural Notices</td>
<td>GCSS-MC Handbook</td>
</tr>
<tr>
<td>GTA 05-07-013</td>
<td>Bridge Classification Card (2006)</td>
</tr>
<tr>
<td>GTA 05-07-013</td>
<td>Rapid Field Classification Booklet</td>
</tr>
<tr>
<td>GTA 5-2-5</td>
<td>Engineer Reconnaissance</td>
</tr>
<tr>
<td>GTA 5-7-6</td>
<td>Bridge Design Card</td>
</tr>
<tr>
<td>IFSTA 36538</td>
<td>International Fire Service Training Association (IFSTA) 36538, Essentials of Fire Fighting and Fire Department Operations</td>
</tr>
<tr>
<td>JP 3-10</td>
<td>Joint Security Operations in Theater</td>
</tr>
<tr>
<td>JP 3-10.1</td>
<td>Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense</td>
</tr>
<tr>
<td>JP 3-15</td>
<td>Barriers, Obstacles, and Mine Warfare for Joint Operations</td>
</tr>
<tr>
<td>JP 3-34</td>
<td>Joint Engineer Operations</td>
</tr>
<tr>
<td>JP 3-36</td>
<td>Detainee Operations</td>
</tr>
<tr>
<td>JP 3-40</td>
<td>Combating Weapons of Mass Destruction</td>
</tr>
<tr>
<td>JP 4-03</td>
<td>Joint Bulk Petroleum and Water Doctrine</td>
</tr>
<tr>
<td>JP 6-0</td>
<td>Joint Communications System</td>
</tr>
<tr>
<td>Local SOP</td>
<td>Local Standard Operating Procedures</td>
</tr>
<tr>
<td>PUBLICATION ID</td>
<td>TITLE</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
</tr>
<tr>
<td>MCBUL 3000</td>
<td>Marine Corps Readiness Reportable Ground Equipment</td>
</tr>
<tr>
<td>MCBUL 8011</td>
<td>CLASS V(W) MATERIEL REQUIREMENTS FOR TRAINING, PROGRAMMED TESTING AND SECURITY</td>
</tr>
<tr>
<td>MCDP 5</td>
<td>Planning</td>
</tr>
<tr>
<td>MCDP 6</td>
<td>Command and Control</td>
</tr>
<tr>
<td>MCIP 3-17.01</td>
<td>Combined Arms Improvised Explosive Device Defeat Operations</td>
</tr>
<tr>
<td>MCO 10110.14M</td>
<td>Marine Corps Food Service and Subsistence Program</td>
</tr>
<tr>
<td>MCO 11240.66_</td>
<td>Standard Licensing Policy for Operators of Military Motor Vehicles</td>
</tr>
<tr>
<td>MCO 1510.101</td>
<td>Individual Training Standards System for Marine Corps Special Skills, Vol. II</td>
</tr>
<tr>
<td>MCO 1553.3_</td>
<td>Unit Training Management (UTM) Program</td>
</tr>
<tr>
<td>MCO 3000.11_</td>
<td>Ground Equipment Condition and Supply Materiel Readiness Reporting (MRR) Policy</td>
</tr>
<tr>
<td>MCO 3400.3_</td>
<td>Nuclear, Biological, and Chemical (NBC) Defense Training</td>
</tr>
<tr>
<td>MCO 3440.7A</td>
<td>Marine Corps Support to Civil Authorities</td>
</tr>
<tr>
<td>MCO 3461.1</td>
<td>EPW, Retain, CI, and other Detainees</td>
</tr>
<tr>
<td>MCO 3500.27_</td>
<td>Operational Risk Management (ORM)</td>
</tr>
<tr>
<td>MCO 3501.17</td>
<td>MARINE CORPS COMBAT READINESS EVALUATION SYSTEM (SHORT TITLE: MCCRES); VOLUME XIII, MARINE WING</td>
</tr>
<tr>
<td>MCO 3571.2_</td>
<td>Explosive Ordnance Disposal (EOD) Program</td>
</tr>
<tr>
<td>MCO 4610.35</td>
<td>USMC Equipment Characteristics File</td>
</tr>
<tr>
<td>MCO 4733.1_</td>
<td>Marine Corps Test, Measurement, and Diagnostics Equipment (TMDE) Calibration and Maintenance Program (CAMP)</td>
</tr>
<tr>
<td>MCO 4790.18_</td>
<td>Corrosion Prevention and Control (CPAC) Program</td>
</tr>
<tr>
<td>MCO 5040.6_</td>
<td>Marine Corps Readiness Inspections and Assessments</td>
</tr>
<tr>
<td>MCO 5090.1</td>
<td>Chlorofluorocarbons (CFC's) and Halons</td>
</tr>
<tr>
<td>MCO 5100.29_</td>
<td>Marine Corps Safety Program</td>
</tr>
<tr>
<td>MCO 5311.1_</td>
<td>Total Force Structure Process (TFSP)</td>
</tr>
<tr>
<td>MCO 5530.15</td>
<td>U.S. Marine Corps Interior Guard Manual</td>
</tr>
<tr>
<td>MCO 8020.1_</td>
<td>Handling, Transportation, Storage, Reclassification and Disposal of Class V(W) Material</td>
</tr>
<tr>
<td>MCO 8023.3B</td>
<td>Personnel Qualification and Certification Program for Class V Ammunition and Explosives</td>
</tr>
<tr>
<td>MCO 8027.1D</td>
<td>Interservice Responsibilities for Explosive Ordnance Disposal</td>
</tr>
<tr>
<td>MCO P10110.34M</td>
<td>U.S. Marine Corps Food Service and Subsistence Program</td>
</tr>
<tr>
<td>MCO P11000.11</td>
<td>Marine Corps Fire Protection and Emergency Services Program</td>
</tr>
<tr>
<td>MCO P11262.2</td>
<td>Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment</td>
</tr>
<tr>
<td>MCO P4790.2</td>
<td>MIMMS Field Procedures Manual</td>
</tr>
<tr>
<td>MCO P5090.2_</td>
<td>Environmental Compliance and Protection Manual</td>
</tr>
<tr>
<td>MCRP 2-3A</td>
<td>Intelligence Preparation of the Battlefield/Battlespace</td>
</tr>
<tr>
<td>PUBLICATION ID</td>
<td>TITLE</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
</tr>
<tr>
<td>MCRP 3-0A</td>
<td>Unit Training Management Guide</td>
</tr>
<tr>
<td>MCRP 3-0B</td>
<td>How to Conduct Training</td>
</tr>
<tr>
<td>MCRP 3-0C</td>
<td>Operational Training Ranges Required Capabilities</td>
</tr>
<tr>
<td>MCRP 3-17.1B</td>
<td>Military Non-Standard Fixed Bridging</td>
</tr>
<tr>
<td>MCRP 3-17.2</td>
<td>Multiservice Procedures for Explosive Ordnance Disposal (NTTP) in a Joint Environment</td>
</tr>
<tr>
<td>MCRP 3-17.2D</td>
<td>Explosive Hazard Operations</td>
</tr>
<tr>
<td>MCRP 3-17.7A</td>
<td>Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design</td>
</tr>
<tr>
<td>MCRP 3-17.7B</td>
<td>Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design</td>
</tr>
<tr>
<td>MCRP 3-17.7C</td>
<td>Carpentry</td>
</tr>
<tr>
<td>MCRP 3-17.7D</td>
<td>Concrete and Masonry</td>
</tr>
<tr>
<td>MCRP 3-17.7E</td>
<td>Plumbing, Pipe Fitting, and Sewerage</td>
</tr>
<tr>
<td>MCRP 3-17.7F</td>
<td>Project Management</td>
</tr>
<tr>
<td>MCRP 3-17.7I</td>
<td>Earthmoving Operations</td>
</tr>
<tr>
<td>MCRP 3-17.7K</td>
<td>Theater of Operations Electrical Systems</td>
</tr>
<tr>
<td>MCRP 3-17.7L</td>
<td>Explosives and Demolitions</td>
</tr>
<tr>
<td>MCRP 3-17.7A</td>
<td>Engineer Field Data</td>
</tr>
<tr>
<td>MCRP 3-17.7B</td>
<td>Engineer Forms and Reports</td>
</tr>
<tr>
<td>MCRP 3-37.2A</td>
<td>MTTF for Chemical, Biological, Radiological and Nuclear Contamination Avoidance</td>
</tr>
<tr>
<td>MCRP 3-37.2C</td>
<td>MTTF for Chemical, Biological, Radiological, and Nuclear Consequence Management Operations</td>
</tr>
<tr>
<td>MCRP 3-37.2B</td>
<td>MTTF for CBRN Aspects of Command and Control</td>
</tr>
<tr>
<td>MCRP 3-41.1A</td>
<td>MAGTF Rear Area Security</td>
</tr>
<tr>
<td>MCRP 4-11.1D</td>
<td>Field Hygiene and Sanitation</td>
</tr>
<tr>
<td>MCRP 4-11.3E</td>
<td>Multi-service Helicopter Sling Load Vol 1&amp;2</td>
</tr>
<tr>
<td>MCRP 4-11.3F</td>
<td>Convoy Operations Handbook</td>
</tr>
<tr>
<td>MCRP 4-11.3H</td>
<td>Multi-service Tactics, Techniques, and Procedures for Tactical Convoy Operations</td>
</tr>
<tr>
<td>MCRP 4-11.4A</td>
<td>Recovery and Battle Damage Assessment and Repair</td>
</tr>
<tr>
<td>MCRP 4-11.8A</td>
<td>Marine Corps Field Feeding Program</td>
</tr>
<tr>
<td>MCRP 4-11B</td>
<td>Environmental Considerations</td>
</tr>
<tr>
<td>MCWP 2-15.3</td>
<td>Ground Reconnaissance Operations (FMFM 2-2)</td>
</tr>
<tr>
<td>MCWP 3-1</td>
<td>Ground Combat Operations</td>
</tr>
<tr>
<td>MCWP 3-11.1</td>
<td>Marine Rifle Company/ Platoon</td>
</tr>
<tr>
<td>MCWP 3-13.2</td>
<td>MINE WARFARE</td>
</tr>
<tr>
<td>MCWP 3-15.1</td>
<td>Machine Guns and Machine Gun Gunnery</td>
</tr>
<tr>
<td>MCWP 3-17</td>
<td>Engineering Operations</td>
</tr>
<tr>
<td>MCWP 3-17.1</td>
<td>Combined Arms Gap-Crossing Operations</td>
</tr>
<tr>
<td>MCWP 3-17.2</td>
<td>MAGTF Explosive Ordnance Disposal</td>
</tr>
<tr>
<td>MCWP 3-17.3</td>
<td>Breaching Operations</td>
</tr>
<tr>
<td>MCWP 3-17.3</td>
<td>MAGTF Breaching Operations</td>
</tr>
<tr>
<td>MCWP 3-17.4</td>
<td>Engineer Reconnaissance</td>
</tr>
<tr>
<td>MCWP 3-17.5</td>
<td>Combined Arms Obstacle Integration</td>
</tr>
<tr>
<td>MCWP 3-17.5</td>
<td>Combined Arms Countermobility Operations</td>
</tr>
<tr>
<td>MCWP 3-17.6</td>
<td>Survivability</td>
</tr>
<tr>
<td>MCWP 3-17.7</td>
<td>General Engineering</td>
</tr>
<tr>
<td>MCWP 3-17.8</td>
<td>Combined Arms Mobility Operations</td>
</tr>
<tr>
<td>PUBLICATION ID</td>
<td>TITLE</td>
</tr>
<tr>
<td>---------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>MCWP 3-21.1</td>
<td>Aviation Ground Support</td>
</tr>
<tr>
<td>MCWP 3-31.2</td>
<td>Mine Warfare</td>
</tr>
<tr>
<td>MCWP 3-31.4</td>
<td>Marine Expeditionary Units (Special Operations Capable)</td>
</tr>
<tr>
<td>MCWP 3-33</td>
<td>Military Operations Other Than War (MOOTW)</td>
</tr>
<tr>
<td>MCWP 3-35.3</td>
<td>Military Operations on Urbanized Terrain (MOUT)</td>
</tr>
<tr>
<td>MCWP 3-35.5</td>
<td>Jungle Operations</td>
</tr>
<tr>
<td>MCWP 3-35.6</td>
<td>Desert Operations</td>
</tr>
<tr>
<td>MCWP 3-37</td>
<td>MAGTF Nuclear, Biological, and Chemical Defense Operations</td>
</tr>
<tr>
<td>MCWP 3-37.1</td>
<td>Multiservice Doctrine for CBRN Operations</td>
</tr>
<tr>
<td>MCWP 3-37.2</td>
<td>MTTP for NBC Protection</td>
</tr>
<tr>
<td>MCWP 3-37.3</td>
<td>MTTP for CBRN Decontamination</td>
</tr>
<tr>
<td>MCWP 3-37.4</td>
<td>MTTP for NBC Reconnaissance</td>
</tr>
<tr>
<td>MCWP 3-37.4</td>
<td>MTTP for CBRN Reconnaissance and Surveillance</td>
</tr>
<tr>
<td>MCWP 3-37.5</td>
<td>MTTP for Installation CBRN Defense</td>
</tr>
<tr>
<td>MCWP 3-40.1</td>
<td>MAGTF Command and Control</td>
</tr>
<tr>
<td>MCWP 3-40.3</td>
<td>MAGTF Communications System</td>
</tr>
<tr>
<td>MCWP 3-41.1</td>
<td>Rear Area Operations</td>
</tr>
<tr>
<td>MCWP 4-1</td>
<td>Logistics Operations</td>
</tr>
<tr>
<td>MCWP 4-11</td>
<td>Tactical-Level Logistics</td>
</tr>
<tr>
<td>MCWP 4-11.1</td>
<td>Health Service Support Operations</td>
</tr>
<tr>
<td>MCWP 4-11.2</td>
<td>Patient Movement</td>
</tr>
<tr>
<td>MCWP 4-11.3</td>
<td>Transportation Operations</td>
</tr>
<tr>
<td>MCWP 4-11.4</td>
<td>Maintenance Operations</td>
</tr>
<tr>
<td>MCWP 4-11.6</td>
<td>Petroleum and Water Logistics Operations</td>
</tr>
<tr>
<td>MCWP 4-25-5</td>
<td>Bulk Liquids Operations</td>
</tr>
<tr>
<td>MCWP 5-1</td>
<td>Marine Corps Planning Process (MCP)</td>
</tr>
<tr>
<td>MIL HDBK 200</td>
<td>Quality Surveillance Handbook for Fuels, Lubricants, and Related</td>
</tr>
<tr>
<td></td>
<td>Products</td>
</tr>
<tr>
<td>NAVAIR 00-80R-14</td>
<td>NATOPS U.S. Navy Aircraft Emergency Rescue Information</td>
</tr>
<tr>
<td>NAVAIR 00-80R-14-1</td>
<td>NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual</td>
</tr>
<tr>
<td>NAVAIR 00-80R-20</td>
<td>NATOPS U.S. Navy Aircraft Crash &amp; Salvage Operations Manual (Ashore)</td>
</tr>
<tr>
<td>NAVAIR 00-80T-109</td>
<td>Aircraft Refueling NATOPS Manual</td>
</tr>
<tr>
<td>NAVAIR 00-80T-115</td>
<td>Expeditionary Airfields Forward Operating Bases NATOPS Manual</td>
</tr>
<tr>
<td>NAVAIR 00-80T-121</td>
<td>Chemical and Biological Defense NATOPS Manual</td>
</tr>
<tr>
<td>NAVAIR 06-5-502</td>
<td>Aircraft Refueling For Shore Activities</td>
</tr>
<tr>
<td>NAVAIR 51-40ABA-14</td>
<td>Portable Shore Based Fresnel Lens OLS MK 8 MOD 0 &amp; MOD 1</td>
</tr>
<tr>
<td>NAVAIR 51-40ABA-18</td>
<td>Lighting &amp; Marking for EAF Bare-Base Airfields</td>
</tr>
<tr>
<td>NAVAIR 51-40ABA-7</td>
<td>Lighting &amp; Marking for EAF</td>
</tr>
<tr>
<td>NAVAIR 51-40ACB-1</td>
<td>Airfield Emergency Portable Marker Light</td>
</tr>
<tr>
<td>NAVAIR 51-50ABA-16</td>
<td>Minimum Operating Strip Lighting System (MOSLS)</td>
</tr>
<tr>
<td>NAVAIR 51-5-31</td>
<td>E28 Emergency Runway Arresting Gear</td>
</tr>
<tr>
<td>NAVAIR 51-5FPA-1</td>
<td>M31 Marine Corps Expeditionary Arresting Gear System</td>
</tr>
<tr>
<td>NAVAIR 51-5FPA-2</td>
<td>M31 Periodic Maintenance Requirements</td>
</tr>
<tr>
<td>PUBLICATION ID</td>
<td>TITLE</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------------</td>
</tr>
<tr>
<td>NAVAIR 51-5FAA-3</td>
<td>M31 Preoperational Checklist</td>
</tr>
<tr>
<td>NAVAIR 51-60-A-1</td>
<td>Installation, Maintenance, Repackaging and Illustrated Parts Breakdown, AM-2 Airfield Mat and Accessories</td>
</tr>
<tr>
<td>NAVAIR 51-60A-1</td>
<td>AM2 Airfield Mat and Accessories</td>
</tr>
<tr>
<td>NAVAIRINST 13800.12B</td>
<td>Certification of Expeditionary Airfield AM-2 Mat Installations, Aircraft Recovery Equipment, Visual/Optical Landing Aids, and Marking/Lighting Systems</td>
</tr>
<tr>
<td>NAVAIRINST 13800.13B</td>
<td>Certification of Shore-Based Aircraft Recovery Equipment and Visual/ Optical Landing Aids Systems</td>
</tr>
<tr>
<td>NAVAL MESSAGES</td>
<td>TAN, SAAN, SAO, DA</td>
</tr>
<tr>
<td>NWP 55-3-AH1</td>
<td>Naval Warfare Publication, AH-1 Tactical Manual</td>
</tr>
<tr>
<td>NAVEDTRA 10696</td>
<td>Engineer Aid 3</td>
</tr>
<tr>
<td>NAVMC 2691A</td>
<td>Interior Guard</td>
</tr>
<tr>
<td>NAVMC 3500.12_</td>
<td>Marine Corps Engineer and Utilities Training and Readiness Manual</td>
</tr>
<tr>
<td>NAVMC 3500.39_</td>
<td>Motor Transport Training and Readiness Manual</td>
</tr>
<tr>
<td>NAVMC 3500.44</td>
<td>Infantry Training and Readiness Manual</td>
</tr>
<tr>
<td>NAVMC 3500.56_</td>
<td>Communications (Comm) Training and Readiness (T&amp;R) Manual</td>
</tr>
<tr>
<td>NAVMC 3500.84</td>
<td>Health Services Training and Readiness Manual</td>
</tr>
<tr>
<td>NAVMC DIR 5100.8_</td>
<td>Marine Corps Occupational Safety and Health (OSH) Program Manual</td>
</tr>
<tr>
<td>NAVMED P-5010-1</td>
<td>Manual of Naval Preventive Medicine, Chapter 1, Food Sanitation</td>
</tr>
<tr>
<td>NAVMED P-5010-10</td>
<td>Manual of Naval Preventive Medicine, Chapter 10, Sanitary Control and Surveillance of Field Water Supplies</td>
</tr>
<tr>
<td>NAVMED P-5010-5</td>
<td>Manual of Naval Preventive Medicine Chapter 5, Water Supply Ashore</td>
</tr>
<tr>
<td>NAVMED P-5010-9</td>
<td>Manual of Naval Preventive Medicine Chapter 9, Preventive Medicine for Ground Forces</td>
</tr>
<tr>
<td>NAVSEA OP 5 Vol 1</td>
<td>Ammunition and Explosives/Ashore Safety Regulations of Handling, Storage, Production, Renovation and Shipping</td>
</tr>
<tr>
<td>NAVSEA OP 5 VOL 2</td>
<td>Ammunition &amp; Explosives Ashore Safety Regulation</td>
</tr>
<tr>
<td>NAVSEA SW020-AC-SAF-010</td>
<td>Transportation and Storage Data of Ammunition, Explosives, and Related Hazardous Materials</td>
</tr>
<tr>
<td>NAVSEA SW060-AA-MMA-010 Volume 1</td>
<td>Technical Manual Demolition Materials</td>
</tr>
<tr>
<td>NAVSUP P-421</td>
<td>Navy Food Service SOP</td>
</tr>
<tr>
<td>NEC (NFPA 70)</td>
<td>National Electrical Code – by National Fire Protection Association</td>
</tr>
<tr>
<td>NRP</td>
<td>National Response Plan</td>
</tr>
<tr>
<td>PUBLICATION ID</td>
<td>TITLE</td>
</tr>
<tr>
<td>----------------</td>
<td>-------</td>
</tr>
<tr>
<td>Op Order</td>
<td>Annex C Appendix 13</td>
</tr>
<tr>
<td>OPNAVINST 4790.2</td>
<td>The Naval Aviation Maintenance Program (NAMP)</td>
</tr>
<tr>
<td>ORDERS AND DIRECTIVES</td>
<td>MARINE CORPS ORDERS AND DIRECTIVES WEBSITE</td>
</tr>
<tr>
<td>SL 1-2/3</td>
<td>Index of Authorized Publications in Stock</td>
</tr>
<tr>
<td>SL-4</td>
<td>Repair, Maintenance, and Management Lists</td>
</tr>
<tr>
<td>SOP</td>
<td>Unit</td>
</tr>
<tr>
<td>TC 21-305</td>
<td>Manual for the Wheeled Vehicle Operator</td>
</tr>
<tr>
<td>TC 21-305-20</td>
<td>Manual for the Wheeled Vehicle Operator</td>
</tr>
<tr>
<td>TC 3-34.489</td>
<td>The Soldier and the Environment</td>
</tr>
<tr>
<td>TM 04486B-15</td>
<td>Drum, Collapsible Liquid Fuel 500 GAL</td>
</tr>
<tr>
<td>TM 07700B-10</td>
<td>Operator's Manual, 40mm Grenade Launcher, M203 (Ch 1&amp;2)</td>
</tr>
<tr>
<td>TM 08089B-OI/1A</td>
<td>Operators Manual for Semitrailer, Tank: 5,000 Gallon Fuel Dispensing, Under/Overwing Aircraft (MK970)</td>
</tr>
<tr>
<td>TM 08670A-10/1A</td>
<td>Operator's Manual, Machinegun, 7.62mm, M240</td>
</tr>
<tr>
<td>TM 09199B-OR</td>
<td>Sweeper, Rotary, Vehicle Mounting</td>
</tr>
<tr>
<td>TM 09211A-14</td>
<td>Tray Ration Heating System TM</td>
</tr>
<tr>
<td>TM 10629-10C</td>
<td>Operator Manual for the Truck, Cargo, 7-Ton</td>
</tr>
<tr>
<td>TM 10629A-OD</td>
<td>Operation Manual with Components List for Truck, Cargo, 7-Ton</td>
</tr>
<tr>
<td>TM 10629-CD</td>
<td>Interactive Electronic Technical Manual (IETM) for Re-Supply Vehicle</td>
</tr>
<tr>
<td>TM 10757A-12</td>
<td>Food Transporter Parts List &amp; Instructions</td>
</tr>
<tr>
<td>TM 10-8340-211-13</td>
<td>Operator, Unit and Direct Support Maintenance Manual for the Tent, General Purpose</td>
</tr>
<tr>
<td>TM 11165A-OR</td>
<td>System Operational Manual for Truck, Tractor, 7-Ton, W/O Winch, MK31</td>
</tr>
<tr>
<td>TM 11240-14/2</td>
<td>Logistic Consideration for Motor Transport Convoy Operations</td>
</tr>
<tr>
<td>TM 11240-OD</td>
<td>Principal Technical Characteristics of U.S. Marine Corps Motor Transportation Equipment</td>
</tr>
<tr>
<td>TM 11275-15/3</td>
<td>Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment</td>
</tr>
<tr>
<td>TM 11275-15/4</td>
<td>Tactical Engineer Equipment Licensing Manual</td>
</tr>
<tr>
<td>TM 12359A-OD</td>
<td>Principal Technical Characteristics of Expeditionary Power Systems Equipment</td>
</tr>
<tr>
<td>TM 3835-OI/1A</td>
<td>Marine Corps Tactical Fuel Systems</td>
</tr>
<tr>
<td>TM 4-43.31</td>
<td>Petroleum Laboratory Testing and Operations</td>
</tr>
<tr>
<td>TM 4700-15/1</td>
<td>Ground Equipment Record Procedures</td>
</tr>
<tr>
<td>TM 5-1080-200-13&amp;P</td>
<td>Operators' Organizational and Direct Support Manual for Lightweight Camouflage Screen Systems</td>
</tr>
<tr>
<td>TM 5-232</td>
<td>Elements of Construction Surveying</td>
</tr>
<tr>
<td>TM 5-2330-356-14&amp;P</td>
<td>Semi-Trailer Tank, 5000</td>
</tr>
<tr>
<td>TM 5-4330-217-12</td>
<td>Operator and Organizational Maintenance Manual, Filter Separator, Liquid 100 GPM, Frame Mounted</td>
</tr>
<tr>
<td>TM 5-441</td>
<td>Geodetic and Topographic Surveying</td>
</tr>
<tr>
<td>TM 5-581B</td>
<td>Construction Drafting</td>
</tr>
<tr>
<td>TM 5-6630-218-10</td>
<td>Aviation Fuel, Contaminant, Test Kit</td>
</tr>
<tr>
<td>PUBICATION ID</td>
<td>TITLE</td>
</tr>
<tr>
<td>----------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td>TM 5-704</td>
<td>Construction Print Reading in the Field</td>
</tr>
<tr>
<td>TM 9-2320-260-10</td>
<td>Operator Manual for Trk 5 Ton, 6x6 M809 Series</td>
</tr>
<tr>
<td>TM 9-2320-280-10</td>
<td>Operator Manual for the 1 1/2 Ton M998</td>
</tr>
<tr>
<td>TM 9-2330-202-14&amp;P</td>
<td>Trailer, Cargo 3/4 Ton, 2 Wheel</td>
</tr>
<tr>
<td>TM 9-2330-247-14&amp;P</td>
<td>M353 Chassis, Trailer, 3 1/2 Ton, 2-Wheel</td>
</tr>
<tr>
<td>TM 9-2330-267-14&amp;P</td>
<td>M149A/A1/A2 Trailer Tank Water, 1 1/2 Ton, 2-Wheel</td>
</tr>
<tr>
<td>TM 9406-15_</td>
<td>Grounding Procedures for Electromagnetic Interference Control and Safety</td>
</tr>
<tr>
<td>TM 9999-15/1</td>
<td>Electro-static Discharge (ESD) Awareness</td>
</tr>
<tr>
<td>TM-10</td>
<td>Applicable Manuals</td>
</tr>
</tbody>
</table>

**U**

<table>
<thead>
<tr>
<th>PUBICATION ID</th>
<th>TITLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UFC 3-270-07</td>
<td>Airfield Damage Repair</td>
</tr>
<tr>
<td>ULSS 001302-15</td>
<td>User's Logistics Support Summary for Field Food Service System (FFSS)</td>
</tr>
<tr>
<td>UNIT SOP</td>
<td>Unit's Standing Operating Procedures</td>
</tr>
<tr>
<td>UPC (IAPMO/ANSI)</td>
<td>Uniform Plumbing Code - by International Association of Plumbing and Mechanical Officials/American National Standard Institute</td>
</tr>
</tbody>
</table>
APPENDIX D

CLASS V ALLOCATION FOR MWSS TRAINING

The Class V requirements listed in this appendix are required for the individual and collective crew served training events for the ABGD and Engineers within the MWSS. The EOD community Class V requirements are contained within NAVMC 3500.66B EOD Manual dtd 17 April 2014.

Table C001 identifies the individual and crew-served DODIC listings.

Table C002 contains the Class V allocations by MOS for sustainment/proficiency of the individual events. The table identifies the quantity of ammunition, explosives and pyrotechnics to conduct the sustainment training per event, its sustainment interval and the annual DODIC requirement.

Table C003 contains the Course of Fire allocations, per crew served weapons system for sustainment/proficiency training.

Table C004 contains allocations for the ABGD and Engineer crew served weapons system sustainment/proficiency training. The table identifies the quantity of ammunition to conduct the sustainment training per event, its sustainment interval and the annual DODIC requirement.

C001. CLASS V DODIC LISTING (Individual and Crew-Served)

<table>
<thead>
<tr>
<th>DODIC</th>
<th>NOMENCLATURE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A064</td>
<td>Cartridge, 5.56mm 4 Ball M855/1 Tracer M856 Linked</td>
</tr>
<tr>
<td>A131</td>
<td>Cartridge, 7.62mm 4 Ball M80/1 Tracer M62 Linked</td>
</tr>
<tr>
<td>A135</td>
<td>Cartridge, 7.62mm Dummy M63</td>
</tr>
<tr>
<td>A560</td>
<td>Cartridge, Cal .50 Dummy M2</td>
</tr>
<tr>
<td>A576</td>
<td>Cartridge, Cal .50 4 API M8/1 API-T M20 Linked</td>
</tr>
<tr>
<td>B472</td>
<td>Cartridge, 40mm Dummy M922</td>
</tr>
<tr>
<td>B542</td>
<td>Cartridge, 40mm HEDP M430/M430A1 Linked</td>
</tr>
<tr>
<td>B546</td>
<td>Cartridge, 40mm HEDP M433</td>
</tr>
<tr>
<td>BA21</td>
<td>Cartridge, 40mm Practice (Day/Night) MK281 Mod 1 Linked</td>
</tr>
<tr>
<td>BA35</td>
<td>Cartridge, 40mm Practice (Day/Night) XM1110</td>
</tr>
<tr>
<td>J007</td>
<td>Mine, Antipersonnel M18A1 with Non-Electric Mini Shock Tube</td>
</tr>
<tr>
<td>L495</td>
<td>Flare, Surface Trip M49/A1 Series</td>
</tr>
<tr>
<td>L598</td>
<td>Simulator, Explosive Booby Trap Flash M117</td>
</tr>
<tr>
<td>M023</td>
<td>Charge, Demo Block M112 1-1/4 pound C-4</td>
</tr>
<tr>
<td>M030</td>
<td>Charge, Demo Block TNT 1/4-Pound</td>
</tr>
<tr>
<td>M032</td>
<td>Charge, Demo Block TNT 1-Pound</td>
</tr>
<tr>
<td>M039</td>
<td>Charge, Demo Cratering 40-Pound</td>
</tr>
<tr>
<td>M130</td>
<td>Cap, Blasting Electric M6</td>
</tr>
<tr>
<td>M131</td>
<td>Cap, Blasting Non-Electric M7</td>
</tr>
<tr>
<td>M327</td>
<td>Coupling Base, Firing Device with Primer</td>
</tr>
<tr>
<td>M420</td>
<td>Charge, Demo Shaped M2 Series 15-Pound</td>
</tr>
<tr>
<td>M421</td>
<td>Charge, Demo Shaped M3 Series 40-Pound</td>
</tr>
<tr>
<td>M456</td>
<td>Cord, Detonating PETN Type I Class E</td>
</tr>
<tr>
<td>MOS</td>
<td>DODIC</td>
</tr>
<tr>
<td>-----</td>
<td>-------</td>
</tr>
<tr>
<td>1302</td>
<td>A011</td>
</tr>
<tr>
<td>1371</td>
<td>A011</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A011</td>
</tr>
<tr>
<td>1302</td>
<td>A023</td>
</tr>
<tr>
<td>1371</td>
<td>A023</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A023</td>
</tr>
<tr>
<td>1302</td>
<td>AA54</td>
</tr>
<tr>
<td>1371</td>
<td>AA54</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AA54</td>
</tr>
<tr>
<td>1371</td>
<td>AX10</td>
</tr>
<tr>
<td>1371</td>
<td>AX11</td>
</tr>
<tr>
<td>1302</td>
<td>AX14</td>
</tr>
<tr>
<td>1371</td>
<td>AX14</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AX14</td>
</tr>
<tr>
<td>1371</td>
<td>G940</td>
</tr>
<tr>
<td>1371</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>G940</td>
</tr>
<tr>
<td>No.</td>
<td>Code</td>
</tr>
<tr>
<td>-----</td>
<td>------</td>
</tr>
<tr>
<td>1371</td>
<td>G945</td>
</tr>
<tr>
<td>1371</td>
<td>G945</td>
</tr>
<tr>
<td>1371</td>
<td>G945</td>
</tr>
<tr>
<td>1371</td>
<td>G945</td>
</tr>
<tr>
<td>1371</td>
<td>G982</td>
</tr>
<tr>
<td>1371</td>
<td>G982</td>
</tr>
<tr>
<td>1371</td>
<td>G982</td>
</tr>
<tr>
<td>1371</td>
<td>G982</td>
</tr>
<tr>
<td>1371</td>
<td>HX05</td>
</tr>
<tr>
<td>1371</td>
<td>HX05</td>
</tr>
<tr>
<td>1371</td>
<td>HX05</td>
</tr>
<tr>
<td>1371</td>
<td>J143</td>
</tr>
<tr>
<td>1371</td>
<td>J143</td>
</tr>
<tr>
<td>1371</td>
<td>J143</td>
</tr>
<tr>
<td>1371</td>
<td>J143</td>
</tr>
<tr>
<td>1371</td>
<td>K143</td>
</tr>
<tr>
<td>1371</td>
<td>L312</td>
</tr>
<tr>
<td>1371</td>
<td>L314</td>
</tr>
<tr>
<td>1371</td>
<td>L495</td>
</tr>
<tr>
<td>1371</td>
<td>L495</td>
</tr>
<tr>
<td>1371</td>
<td>L495</td>
</tr>
<tr>
<td>1371</td>
<td>L594</td>
</tr>
<tr>
<td>1371</td>
<td>L598</td>
</tr>
<tr>
<td>1371</td>
<td>LX21</td>
</tr>
<tr>
<td>1302</td>
<td>M023</td>
</tr>
<tr>
<td>1302</td>
<td>M023</td>
</tr>
<tr>
<td>1302</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
<tr>
<td>1371</td>
<td>M023</td>
</tr>
</tbody>
</table>

**D-3**  
Enclosure (1)
| M023 | 1302           | 1302-DEMO-1002 | 1   | SA  | 2   |
|      | M028           | 1371-MOBL-1001 | 1   | Q   | 4   |
|      |                | 1371-MOBL-2012 | 1   | SA  | 2   |
| M028 |                |                |     |     | 8   |
|      | M030           | 1302-DEMO-1002 | 1   | SA  | 2   |
|      | 1371-MOBL-1001 | 1   | Q   | 4   |
|      | 1371-DEMO-1002 | 1   | Q   | 4   |
|      | M030           |                |     |     | 10  |
|      | M032           | 1302-DEMO-1002 | 1   | SA  | 2   |
|      | 1302-DEMO-1003 | 10  | Q   | 40  |
|      | 1371-MOBL-1001 | 1   | Q   | 4   |
|      | 1371-DEMO-1002 | 1   | Q   | 4   |
|      | 1371-DEMO-2001 | 10  | Q   | 40  |
|      | M032           |                |     |     | 90  |
|      | M039           | 1302-DEMO-1002 | 1   | SA  | 2   |
|      | 1371-MOBL-1001 | 1   | Q   | 4   |
|      | 1371-DEMO-1002 | 1   | Q   | 4   |
|      | M039           |                |     |     | 10  |
|      | M130           | 1302-DEMO-1002 | 3   | SA  | 6   |
|      | 1302-DEMO-1003 | 14  | Q   | 56  |
|      | 1302-MOBL-1006 | 8   | SA  | 16  |
|      | 1371-MOBL-1001 | 1   | Q   | 4   |
|      | 1371-MOBL-1002 | 4   | Q   | 16  |
|      | 1371-MOBL-1003 | 10  | Q   | 40  |
|      | 1371-MOBL-1007 | 1   | SA  | 2   |
|      | 1371-MOBL-2008 | 2   | SA  | 4   |
|      | 1371-MOBL-2009 | 32  | Q   | 32  |
|      | 1371-MOBL-2010 | 10  | Q   | 40  |
|      | 1371-MOBL-2011 | 1   | SA  | 2   |
|      | 1371-MOBL-2012 | 12  | Q   | 48  |
|      | 1371-MOBL-1001 | 10  | Q   | 40  |
|      | 1371-MOBL-1003 | 1   | SA  | 2   |

NAVMC 3500.117
14 July 2014

D-4   Enclosure (1)
<table>
<thead>
<tr>
<th>Item Code</th>
<th>Description</th>
<th>Quantity</th>
<th>Unit</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>1371-CMOB-1002</td>
<td>1 SA 2</td>
<td>1</td>
<td>SA 2</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2001</td>
<td>8 Q 32</td>
<td>10</td>
<td>Q 40</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2002</td>
<td>2 SA 4</td>
<td>2</td>
<td>SA 4</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2011</td>
<td>2 SA 4</td>
<td>2</td>
<td>SA 4</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2012</td>
<td>2 A 2</td>
<td>2</td>
<td>A 2</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2013</td>
<td>6 SA 12</td>
<td>6</td>
<td>SA 12</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2014</td>
<td>4 SA 8</td>
<td>4</td>
<td>SA 8</td>
<td></td>
</tr>
<tr>
<td>M131</td>
<td>288</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1371 M327</td>
<td>1371-CMOB-1003</td>
<td>1 Q 4</td>
<td>1 Q 4</td>
<td></td>
</tr>
<tr>
<td>1371 M327</td>
<td>1371-CMOB-2003</td>
<td>4 SA 8</td>
<td>4 SA 8</td>
<td></td>
</tr>
<tr>
<td>1371 M327</td>
<td>1371-MOBL-2012</td>
<td>6 SA 12</td>
<td>6 SA 12</td>
<td></td>
</tr>
<tr>
<td>1371 M327</td>
<td>1371-MOBL-2023</td>
<td>4 SA 8</td>
<td>4 SA 8</td>
<td></td>
</tr>
<tr>
<td>1302 M420</td>
<td>1302-DEMO-1002</td>
<td>1 SA 2</td>
<td>1 SA 2</td>
<td></td>
</tr>
<tr>
<td>1371 M420</td>
<td>1371-DEMO-1001</td>
<td>1 Q 4</td>
<td>1 Q 4</td>
<td></td>
</tr>
<tr>
<td>1371 M420</td>
<td>1371-DEMO-1002</td>
<td>1 Q 4</td>
<td>1 Q 4</td>
<td></td>
</tr>
<tr>
<td>M420</td>
<td>10</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1302 M421</td>
<td>1302-DEMO-1002</td>
<td>1 SA 2</td>
<td>1 SA 2</td>
<td></td>
</tr>
<tr>
<td>1371 M421</td>
<td>1371-DEMO-1001</td>
<td>1 Q 4</td>
<td>1 Q 4</td>
<td></td>
</tr>
<tr>
<td>1371 M421</td>
<td>1371-DEMO-1002</td>
<td>1 Q 4</td>
<td>1 Q 4</td>
<td></td>
</tr>
<tr>
<td>M421</td>
<td>10</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1302 M456</td>
<td>1302-DEMO-1002</td>
<td>85 SA 170</td>
<td>85 SA 170</td>
<td></td>
</tr>
<tr>
<td>1302 M456</td>
<td>1302-DEMO-1003</td>
<td>500 Q 2000</td>
<td>500 Q 2000</td>
<td></td>
</tr>
<tr>
<td>1302 M456</td>
<td>1302-MOBL-1006</td>
<td>200 SA 400</td>
<td>200 SA 400</td>
<td></td>
</tr>
<tr>
<td>1302 M456</td>
<td>1302-MOBL-1010</td>
<td>10 SA 20</td>
<td>10 SA 20</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-1002</td>
<td>50 SA 100</td>
<td>50 SA 100</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-1003</td>
<td>500 Q 2000</td>
<td>500 Q 2000</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-1001</td>
<td>35 Q 140</td>
<td>35 Q 140</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-1002</td>
<td>350 Q 1400</td>
<td>350 Q 1400</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-MOBL-1001</td>
<td>300 Q 1200</td>
<td>300 Q 1200</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-MOBL-1003</td>
<td>350 SA 700</td>
<td>350 SA 700</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2003</td>
<td>350 SA 700</td>
<td>350 SA 700</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2001</td>
<td>250 Q 1000</td>
<td>250 Q 1000</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2007</td>
<td>5 SA 10</td>
<td>5 SA 10</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2008</td>
<td>5 SA 10</td>
<td>5 SA 10</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2009</td>
<td>12 SA 24</td>
<td>12 SA 24</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2010</td>
<td>96 SA 192</td>
<td>96 SA 192</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2011</td>
<td>18 SA 36</td>
<td>18 SA 36</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2012</td>
<td>33 SA 66</td>
<td>33 SA 66</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2013</td>
<td>32 SA 64</td>
<td>32 SA 64</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-CMOB-2014</td>
<td>15 A 15</td>
<td>15 A 15</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-MOBL-2012</td>
<td>1500 SA 3000</td>
<td>1500 SA 3000</td>
<td></td>
</tr>
<tr>
<td>1371 M456</td>
<td>1371-MOBL-2023</td>
<td>10 SA 20</td>
<td>10 SA 20</td>
<td></td>
</tr>
<tr>
<td>M456</td>
<td>13267</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1302 M591</td>
<td>1302-DEMO-1002</td>
<td>2 SA 4</td>
<td>2 SA 4</td>
<td></td>
</tr>
<tr>
<td>1371 M591</td>
<td>1371-CMOB-1002</td>
<td>1 SA 2</td>
<td>1 SA 2</td>
<td></td>
</tr>
<tr>
<td>1371 M591</td>
<td>1371-DEMO-1001</td>
<td>2 Q 8</td>
<td>2 Q 8</td>
<td></td>
</tr>
<tr>
<td>1371 M591</td>
<td>1371-DEMO-1002</td>
<td>1 Q 4</td>
<td>1 Q 4</td>
<td></td>
</tr>
<tr>
<td>M591</td>
<td>18</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Type</td>
<td>Description</td>
<td>Quantity</td>
<td>Unit</td>
</tr>
<tr>
<td>-------</td>
<td>------------</td>
<td>----------------------</td>
<td>----------</td>
<td>------</td>
</tr>
<tr>
<td>1302</td>
<td>M670</td>
<td>1302-DEMO-1002</td>
<td>40</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td>M670</td>
<td>1302-DEMO-1003</td>
<td>50</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1302-MOBL-1006</td>
<td>24</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1302-MOBL-1010</td>
<td>500</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>M670</td>
<td>1371-CMOB-1002</td>
<td>25</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td>M670</td>
<td>1371-DEMO-1001</td>
<td>10</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-1002</td>
<td>350</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-1001</td>
<td>200</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-1003</td>
<td>10</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2001</td>
<td>50</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2002</td>
<td>50</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2011</td>
<td>12</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2012</td>
<td>12</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2013</td>
<td>12</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2014</td>
<td>12</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-2012</td>
<td>500</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-2023</td>
<td>500</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td>M670</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>M757</td>
<td>1302-DEMO-1002</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1302-DEMO-1003</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1302-MOBL-1010</td>
<td>2</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>M757</td>
<td>1371-CMOB-1003</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td>M757</td>
<td>1371-DEMO-1001</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-1002</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-1001</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-1003</td>
<td>2</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-2012</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td>M757</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1371</td>
<td>M766</td>
<td>1371-DEMO-2002</td>
<td>11</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td>M913</td>
<td>1371-MOBL-2010</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-MOBL-2012</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td>M913</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1371</td>
<td>M914</td>
<td>1371-MOBL-2010</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td>M982</td>
<td>1302-DEMO-1002</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td>M982</td>
<td>1371-DEMO-2002</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td>M982</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>ML03</td>
<td>1302-DEMO-1003</td>
<td>2</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1302-MOBL-1006</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>ML03</td>
<td>1371-DEMO-1001</td>
<td>2</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-CMOB-1003</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2001</td>
<td>5</td>
<td>Q</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2007</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2008</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2009</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2010</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1371-DEMO-2011</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td>NA VM 3500.117</td>
<td>14 July 2014</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------</td>
<td>-------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enclosure (1)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Quantity</th>
<th>Size</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1371-DEMO-2012</td>
<td>1</td>
<td>SA</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2014</td>
<td>1</td>
<td>A</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1371-CMOB-2003</td>
<td>4</td>
<td>SA</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>ML03</td>
<td></td>
<td></td>
<td>63</td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>ML47</td>
<td>1302-DEMO-1003</td>
<td>3</td>
<td>Q</td>
</tr>
<tr>
<td>1371</td>
<td>ML47</td>
<td>1371-DEMO-1001</td>
<td>6</td>
<td>Q</td>
</tr>
<tr>
<td>1371-MOBL-1001</td>
<td>3</td>
<td>Q</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2001</td>
<td>3</td>
<td>Q</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-2002</td>
<td>2</td>
<td>Q</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>ML47</td>
<td></td>
<td></td>
<td>68</td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>MM30</td>
<td>1302-DEMO-1002</td>
<td>4</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>MM30</td>
<td>1371-DEMO-2011</td>
<td>2</td>
<td>SA</td>
</tr>
<tr>
<td>1371-MOBL-2013</td>
<td>3</td>
<td>SA</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>MM30</td>
<td></td>
<td></td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>MM44</td>
<td>1302-DEMO-1002</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>MM45</td>
<td>1371-DEMO-1002</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td>1371-MOBL-2002</td>
<td>1</td>
<td>Q</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MM45</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1371</td>
<td>MM46</td>
<td>1371-DEMO-2002</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td>1371-MOBL-2003</td>
<td>2</td>
<td>SA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>MM47</td>
<td>1302-DEMO-1002</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>MM47</td>
<td>1371-DEMO-2002</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td>MM47</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>MM48</td>
<td>1302-DEMO-1002</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>MM48</td>
<td>1371-DEMO-2002</td>
<td>1</td>
<td>Q</td>
</tr>
<tr>
<td>MM48</td>
<td></td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>MN08</td>
<td>1302-DEMO-1002</td>
<td>5</td>
<td>SA</td>
</tr>
<tr>
<td>1302-MOBL-1003</td>
<td>10</td>
<td>Q</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>1302-MOBL-1006</td>
<td>4</td>
<td>SA</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1302-MOBL-1010</td>
<td>2</td>
<td>SA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1371</td>
<td>MN08</td>
<td>1371-CMOB-1002</td>
<td>1</td>
<td>SA</td>
</tr>
<tr>
<td>1371-DEMO-1001</td>
<td>2</td>
<td>Q</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>1371-DEMO-1002</td>
<td>1</td>
<td>Q</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1371-MOBL-1001</td>
<td>12</td>
<td>Q</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>1371-MOBL-1003</td>
<td>2</td>
<td>SA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1371-Demo-2001</td>
<td>8</td>
<td>Q</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td>1371-Demo-2002</td>
<td>6</td>
<td>Q</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>1371-Demo-2011</td>
<td>2</td>
<td>SA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1371-Demo-2012</td>
<td>2</td>
<td>SA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1371-Demo-2013</td>
<td>2</td>
<td>SA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>1371-Demo-2014</td>
<td>2</td>
<td>A</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1371-MOBL-2012</td>
<td>8</td>
<td>SA</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>1371-MOBL-2023</td>
<td>2</td>
<td>SA</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MN08</td>
<td></td>
<td></td>
<td>218</td>
<td></td>
</tr>
<tr>
<td>1302</td>
<td>MN14</td>
<td>1302-MOBL-1006</td>
<td>2</td>
<td>SA</td>
</tr>
<tr>
<td>1371</td>
<td>MN14</td>
<td>1371-DEMO-1002</td>
<td>3</td>
<td>Q</td>
</tr>
</tbody>
</table>
### Course of Fire Allocations for Crew Served Weapon System Sustainment/Proficiency

(Numbers in parenthesis depict quantities supporting the events pre-qualification/qualification/remediation tasks.)

<table>
<thead>
<tr>
<th>E0960 - M249</th>
<th>DODIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course of Fire:</td>
<td>A135 A064</td>
</tr>
<tr>
<td>Load/Operate</td>
<td>12</td>
</tr>
<tr>
<td>Remedial/Immediate Actions</td>
<td>12</td>
</tr>
<tr>
<td>Zero SDO (0/20/0)</td>
<td>20</td>
</tr>
<tr>
<td>Table II Multiple Engagement Crs (12/200/22)</td>
<td>234</td>
</tr>
<tr>
<td>Table V Night Vision Device (NVD) (0/60/7)</td>
<td>67</td>
</tr>
</tbody>
</table>

The table below provides the specific course of fire allocations for different events and systems:

<table>
<thead>
<tr>
<th>Event Code</th>
<th>System Code</th>
<th>Quantity</th>
<th>Quantity Type</th>
<th>Allocation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1371-DEMO-2002</td>
<td>MN14</td>
<td>1</td>
<td>Q</td>
<td>4</td>
</tr>
<tr>
<td>1371-MOBL-2012</td>
<td>MN14</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1302-MN52</td>
<td>1302-DEMO-1002</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1302-MN52</td>
<td>1302-DEMO-1003</td>
<td>5</td>
<td>Q</td>
<td>20</td>
</tr>
<tr>
<td>1302-MN52</td>
<td>1302-MOBL-1006</td>
<td>6</td>
<td>SA</td>
<td>12</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-DEMO-1001</td>
<td>4</td>
<td>Q</td>
<td>16</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-1001</td>
<td>2</td>
<td>Q</td>
<td>8</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-1003</td>
<td>4</td>
<td>SA</td>
<td>8</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-CMOB-2003</td>
<td>4</td>
<td>SA</td>
<td>8</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2001</td>
<td>5</td>
<td>Q</td>
<td>20</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2002</td>
<td>4</td>
<td>Q</td>
<td>16</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2008</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2009</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2010</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2011</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2012</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2013</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2014</td>
<td>1</td>
<td>A</td>
<td>1</td>
</tr>
<tr>
<td>1371-MN52</td>
<td>1371-MOBL-2012</td>
<td>6</td>
<td>SA</td>
<td>12</td>
</tr>
<tr>
<td>1371-MN79</td>
<td>1371-MOBL-2011</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-DEMO-1003</td>
<td>3</td>
<td>Q</td>
<td>12</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-MOBL-1010</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-MOBL-1003</td>
<td>3</td>
<td>SA</td>
<td>6</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-MOBL-2001</td>
<td>3</td>
<td>Q</td>
<td>12</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-MOBL-2002</td>
<td>1</td>
<td>Q</td>
<td>4</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-MOBL-2012</td>
<td>2</td>
<td>SA</td>
<td>4</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-MOBL-2023</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN88</td>
<td>1371-MOBL-2012</td>
<td>6</td>
<td>SA</td>
<td>12</td>
</tr>
<tr>
<td>1371-MN90</td>
<td>1302-DEMO-1003</td>
<td>3</td>
<td>Q</td>
<td>12</td>
</tr>
<tr>
<td>1371-MN90</td>
<td>1371-MOBL-1010</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN90</td>
<td>1371-MOBL-1003</td>
<td>3</td>
<td>SA</td>
<td>6</td>
</tr>
<tr>
<td>1371-MN90</td>
<td>1371-MOBL-2002</td>
<td>1</td>
<td>Q</td>
<td>4</td>
</tr>
<tr>
<td>1371-MN90</td>
<td>1371-MOBL-2023</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
<tr>
<td>1371-MN90</td>
<td>1371-MOBL-2023</td>
<td>1</td>
<td>SA</td>
<td>2</td>
</tr>
</tbody>
</table>
### NAVMC 3500.117

14 July 2014

D-9  Enclosure (1)

#### C004. CREW SERVED WEAPON SUSTAINMENT/PROFICIENCY ALLOCATIONS

<table>
<thead>
<tr>
<th>DODIC</th>
<th>WEAPON</th>
<th>EVENT</th>
<th>RDS QTY</th>
<th># OF WEAPONS</th>
<th>SUSTAINMENT INTERVAL</th>
<th>ANNUAL TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A064</td>
<td>M249</td>
<td>HQCO-ABGD-3001</td>
<td>354</td>
<td>30</td>
<td>SA</td>
<td>21240</td>
</tr>
<tr>
<td>A131</td>
<td>M240</td>
<td>HQCO-ABGD-3001</td>
<td>1284</td>
<td>18</td>
<td>SA</td>
<td>46224</td>
</tr>
<tr>
<td>A135</td>
<td>M240</td>
<td>HQCO-ABGD-3001</td>
<td>12</td>
<td>18</td>
<td>SA</td>
<td>432</td>
</tr>
<tr>
<td>A560</td>
<td>M2</td>
<td>HQCO-ABGD-3002</td>
<td>20</td>
<td>12</td>
<td>SA</td>
<td>480</td>
</tr>
<tr>
<td>A576</td>
<td>M2</td>
<td>HQCO-ABGD-3002</td>
<td>1045</td>
<td>12</td>
<td>SA</td>
<td>25080</td>
</tr>
<tr>
<td>B472</td>
<td>MK-19</td>
<td>HQCO-ABGD-3002</td>
<td>20</td>
<td>12</td>
<td>SA</td>
<td>480</td>
</tr>
<tr>
<td>B542</td>
<td>MK-19</td>
<td>HQCO-ABGD-3002</td>
<td>337</td>
<td>12</td>
<td>SA</td>
<td>8088</td>
</tr>
</tbody>
</table>