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Subj: MARINE WING SUPPORT SQUADRON TRAINING AND READINESS MANUAL

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(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

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CHAPTER 1

OVERVIEW

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.

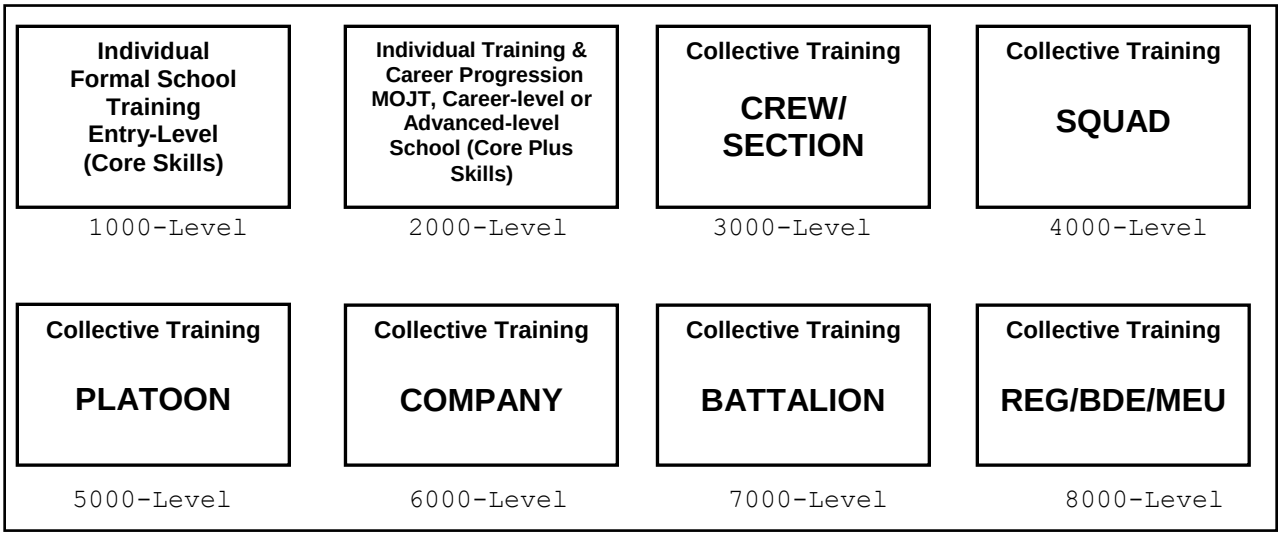

Figure. 1-1 T&R Event Levels

(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.

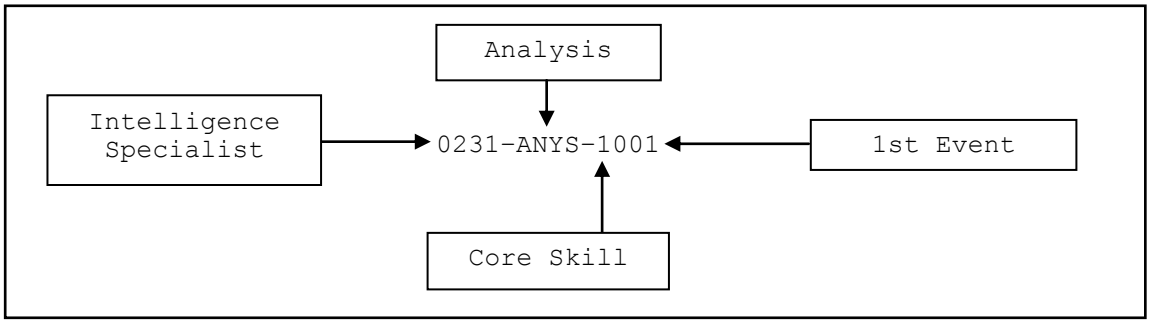

Figure 1-2: T&R Event Coding

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 use 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.

Code	Requirement
L	Event able to be performed to standard only live environment
S	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
S/L	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.
DL	Event shall be performed by self-paced, technology-enabled training (i.e. MarineNet)
DL/L	Event may be performed by self-paced, technology enabled training or in a live environment

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.

0321-PAT-4101 Conduct Team Planning

EVALUATION CODED: YES SUPPORTED MET(S): 1, 2, 3, 4, 5, 6, 7, 8, 9

DESCRIPTION: The unit is conducting tactical operations. The unit has been issued a warning order to conduct reconnaissance patrols to collect information and to conduct normal security patrols. The patrol will be conducted on a 24-hour basis. This event may be trained to standard using the XYZ simulation program available at all MISTC locations.

CONDITION: When given a Warning Order, Patrol Order or Frag Order.

STANDARD: Prior to commencement of exercise or operation, so that subordinates have 2/3 of the total time before step-off for planning, to include all elements of the plan.

EVENT COMPONENTS:
1. Receive Warning Order or Patrol Order.
2. Analyze for Mission using commander's guidance, METT-TSL, KOCOA.
3. Analyze the mission and available information to identify specific tasks with respect to commander's guidance, METT-TSL and KOCOA.
4. Create the plan.

RELATED ITES:

0321-PAT -1102	0321-PAT -1101	0321-COMM-1207	0321-FSPT-2301
0321-FSPT-2302	0321-FSPT-2303	0321-SURV-1403	

REFERENCES:
1. FMFM 6-4 Marine Rifle Company
2. MCWP 3-11.3 Scouting and Patrolling
3. MCRP 2-15.1 DRAFT Ground Reconnaissance Handbook

Figure 1-4: Example of a T&R Event

1009. CHEMICAL BIOLOGICAL RADIOLOGICAL NUCLEAR (CBRN) TRAINING

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.

MWSS T&R MANUAL

CHAPTER 2

MISSION ESSENTIAL TASKS MATRIX

CHAPTER 2

MISSION ESSENTIAL TASKS MATRIX

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

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

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

MCT 4.6.3 PROVIDE AIRFIELD OPERATION SERVICES	
SQDR-OPS-7001	Train AGS forces
SQDR-OPS-7002	Command and Control AGS
SQDR-OPS-7003	Establish AGS Operations Center (AGSOC)
SQDR-PLAN-7001	Plan AGS operations
SQDR-PLAN-7002	Plan FOB 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
HQCO-OPS-6001	Train Headquarters & Service company personnel
HQCO-OPS-6003	Operate AGS Operations Center (AGSOC)
AOPS-ARFF-5001	Provide ARFF services
AOPS-EAF-5001	Provide EAF services
AOPS-FUEL-5001	Conduct FARP
AOPS-FUEL-5002	Construct bulk fuel site
AOPS-FUEL-5003	Conduct tactical bulk fuel operations
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
AOPS-ARFF-4001	Conduct structural firefighting operations
AOPS-ARFF-4002	Conduct ARFF operations
AOPS-EAF-4001	Provide aircraft arrestment capability
AOPS-EAF-4002	Provide visual landing aids for terminal guidance of aircraft
AOPS-EAF-4003	Provide airfield lighting/marking
AOPS-EAF-4004	Chapter 2 Conduct aircraft arrestment/recovery operations
AOPS-EAF-4005	Conduct expedient Tactical Landing Zone (TLZ) site survey
AOPS-EOD-4001	Provide Support to Other Government Agencies in support of the Homeland Defense Mission
AOPS-FUEL-4001	Maintain bulk fuel distribution site
HQCO-COMM-4001	Establish data network services
HQCO-OPS-4002	Conduct Damage Assessment and Response Team (DART) activities
AOPS-EOD-3001	Respond to an aircraft incident
AOPS-EOD-3002	Conduct CBRN Response Operations
AOPS-EOD-3003	Conduct disposal of explosive components
AOPS-EOD-3004	Conduct post blast analysis
AOPS-EOD-3005	Conduct sensitive site exploitation
AOPS-EOD-3006	Conduct unexploded explosive ordnance (UXO) response operations
AOPS-EOD-3007	Conduct full spectrum EOD operations
AOPS-EOD-3008	Conduct IED operations
AOPS-EOD-3009	Conduct WMD operations
AOPS-EOD-3010	Conduct conventional explosive ordnance operations
AOPS-EOD-3011	Provide nuclear ordnance operations
ENGR-RECN-3001	Assess damage to airfield surfaces
ENGR-RECN-3002	Assess damage to airfield facilities
MCT 5.3.2.12 ESTABLISH/OPERATE AVIATION GROUND SUPPORT OPERATIONS CENTER (AGSOC)	
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-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-EAF-6001	Plan Expeditionary Airfield (EAF) services
AOPS-OPS-6002	Provide Air Operations services
ENGR-OPS-6001	Plan engineer operations
ENGR-OPS-6002	Command and Control engineer forces
HQCO-ABGD-6001	Conduct BDOC operations
HQCO-OPS-6002	Provide Headquarters & Service company support
HQCO-OPS-6003	Chapter 3 Operate AGS Operations Center (AGSOC)
MTCO-OPS-6001	Plan Motor Transportation company services

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)
MTCO-OPS-6001	Plan Motor Transportation company services
MTCO-OPS-6002	Train Motor Transportation company personnel
MTCO-OPS-6003	Provide motor transportation company services
MTCO-OPS-6004	Establish a tactical motor pool
MTCO-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-EQIP-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 expedient Helicopter Landing Zone (HLZ)
ENGR-RECN-5001	Conduct engineer reconnaissance
ENGR-SURV-5001	Construct survivability positions
ENGR-SURV-5002	Harden existing structure(s)

ENGR-UTIL-5001	Provide utilities support
ENGR-VERT-5001	Conduct vertical construction
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-5004	Provide data network services
HQCO-COMM-5005	Provide a communications network in support of a command element
HQCO-MED-5001	Provide medical services
HQCO-MED-5002	Perform mass casualty
HQCO-OPS-5001	Conduct Minimal Operating Strip (MOS) selection
MTCO-OPS-5001	Conduct convoy operations
MTCO-OPS-5002	Establish a tactical motor pool
AOPS-ARFF-4001	Conduct structural firefighting operations
AOPS-ARFF-4002	Conduct ARFF operations
AOPS-EAF-4001	Provide aircraft arrestment capability
AOPS-EAF-4002	Provide visual landing aids for terminal guidance of aircraft
AOPS-EAF-4003	Provide airfield lighting/marking
AOPS-EAF-4004	Chapter 4 Conduct aircraft arrestment/recovery operations
AOPS-EAF-4005	Conduct expedient Tactical Landing Zone (TLZ) site survey
AOPS-EOD-4001	Provide Support to Other Government Agencies in support of the Homeland Defense Mission
AOPS-FUEL-4001	Maintain bulk fuel distribution site
ENGR-CMOB-4002	Create a non-explosive obstacle/barriers
ENGR-EQIP-4001	Conduct Material Handling Equipment (MHE) operations
ENGR-HORZ-4001	Conduct horizontal construction
ENGR-MANT-4001	Maintain engineer equipment
ENGR-MOBL-4001	Conduct route improvement
ENGR-MOBL-4002	Repair runway crater
ENGR-MOBL-4003	Repair spall(s)
ENGR-MOBL-4004	Conduct dismounted route sweep operations
ENGR-SURV-4007	Construct vehicle survivability position/revetment
ENGR-UTIL-4001	Provide tactical electrical power
ENGR-UTIL-4002	Provide potable water
ENGR-VERT-4001	Construct manufactured steel structure
ENGR-VERT-4002	Construct wood frame structure
ENGR-VERT-4003	Construct concrete block structure
HQCO-COMM-4001	Establish data network services
HQCO-MED-4001	Coordinate patient movement
HQCO-OPS-4002	Conduct Damage Assessment and Response Team (DART) activities
MTCO-OPS-4001	Conduct convoy operations
AOPS-EOD-3001	Respond to an aircraft incident
AOPS-EOD-3002	Conduct CBRN Response Operations
AOPS-EOD-3003	Conduct disposal of explosive components
AOPS-EOD-3004	Conduct post blast analysis
AOPS-EOD-3005	Conduct sensitive site exploitation
AOPS-EOD-3006	Conduct unexploded explosive ordnance (UXO) response

	operations
AOPS-EOD-3007	Conduct full spectrum EOD operations
AOPS-EOD-3008	Conduct IED operations
AOPS-EOD-3009	Conduct WMD operations
AOPS-EOD-3010	Conduct conventional explosive ordnance operations
ENGR-MANT-3004	Maintain water purification equipment
ENGR-MANT-3005	Maintain hygiene equipment
ENGR-RECN-3001	Assess damage to airfield surfaces
ENGR-RECN-3002	Assess damage to airfield facilities
ENGR-RECN-3005	Conduct obstacle reconnaissance
ENGR-RECN-3006	Conduct bridge reconnaissance
ENGR-RECN-3007	Conduct road reconnaissance
ENGR-SURV-3001	Construct vehicle survivability position/revetment
ENGR-SURV-3002	Construct individual fighting position
ENGR-SURV-3003	Construct crew served weapons position
ENGR-SURV-3004	Construct overhead cover
ENGR-SURV-3006	Construct shelter/bunkers
ENGR-SURV-3007	Construct vehicle fighting position
ENGR-UTIL-3001	Establish tactical power distribution system
ENGR-UTIL-3003	Establish power generation site(s)
ENGR-UTIL-3006	Provide refrigeration support
ENGR-UTIL-3007	Produce potable water
ENGR-VERT-3001	Fell standing timber
HQCO-CBRN-3001	Conduct unit Individual Protective Equipment (IPE) confidence exercise
HQCO-CBRN-3002	Conduct CBRN center operations
HQCO-CBRN-3003	Conduct operational decontamination
HQCO-FOOD-3002	Conduct technical inspections
HQCO-FOOD-3003	Embark equipment
HQCO-FOOD-3004	Establish an expeditionary feeding site
HQCO-MED-3001	Receive Casualties
HQCO-MED-3002	Conduct temporary casualty holding
HQCO-MED-3003	Perform medical care
HQCO-MED-3004	Conduct casualty evacuation
MCT 6.1.1.3.4	**PROVIDE BASE/AIRFIELD SECURITY OPERATIONS**
SQDR-OPS-7001	Train AGS forces
SQDR-OPS-7002	Command and control AGS
SQDR-OPS-7003	Establish AGS Operations Center (AGSOC)
SQDR-OPS-7005	Establish Base/Airfield security operations
SQDR-PLAN-7001	Plan AGS operations
SQDR-PLAN-7003	Plan Base/Airfield security operations
AOPS-OPS-6001	Train Air Operations personnel
ENGR-OPS-6003	Train engineer company personnel
ENGR-OPS-6005	Conduct countermobility operations
HQCO-ABGD-6001	Conduct BDOC operations
HQCO-ABGD-6002	Provide delay tactics against level III threats
HQCO-OPS-6001	Train Headquarters & Service company personnel
HQCO-OPS-6002	Provide Headquarters & Service company support
HQCO-OPS-6003	Operate AGS Operations Center (AGSOC)
MTCO-OPS-6005	Conduct convoy operations
ENGR-MOBL-5003	Conduct area clearance operations
ENGR-RECN-5001	Conduct engineer reconnaissance

ENGR-SURV-5001	Construct survivability positions
ENGR-SURV-5002	Harden existing structure(s)
HQCO-ABGD-5001	Conduct guard force operations
HQCO-ABGD-5002	Conduct response force operations
HQCO-ABGD-5003	Conduct tenant unit force operations
HQCO-ABGD-5004	Establish provisional security forces
HQCO-COMM-5001	Provide single channel radio services
HQCO-COMM-5002	Provide telephone services
ENGR-CMOB-4001	Create an explosive obstacle
ENGR-CMOB-4002	Create a non-explosive obstacle/barriers
ENGR-CMOB-4003	Employ demolitions in support of countermobility operations
ENGR-MOBL-4004	Conduct dismounted route sweep operations
ENGR-SURV-4007	Construct vehicle survivability position/revetment
HQCO-ABGD-4001	Implement security measures
HQCO-ABGD-4002	Employ Force Protection Conditions (FPCON)
HQCO-ABGD-4003	Employ security objectives
HQCO-ABGD-4004	Employ security principles
HQCO-ABGD-4005	Employ security tasks
HQCO-ABGD-4006	Employ security and control procedures
ENGR-CMOB-3001	Construct demolition obstacles
ENGR-CMOB-3002	Construct field expedient obstacle
ENGR-CMOB-3004	Build non-explosive obstacles
ENGR-SURV-3001	Construct vehicle survivability position/revetment
ENGR-SURV-3002	Construct individual fighting position
ENGR-SURV-3003	Construct crew served weapons position
ENGR-SURV-3004	Construct overhead cover
ENGR-SURV-3006	Construct shelter/bunkers
ENGR-SURV-3007	Construct vehicle fighting position
HQCO-ABGD-3001	Employ a medium machinegun team
HQCO-ABGD-3002	Employ a heavy machinegun team
MCT 6.3.3 RESTORE MISSION ESSENTIAL OPERATIONS/COMMUNICATIONS	
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-7006	Conduct aircraft salvage operations
SQDR-PLAN-7001	Plan AGS operations
AOPS-ARFF-6001	Plan Aircraft Rescue and Fire Fighting (ARFF) services
AOPS-ARFF-6002	Conduct mass casualty operations
AOPS-OPS-6001	Train Air Operations personnel
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
HQCO-OPS-6001	Train Headquarters & Service company personnel
HQCO-OPS-6002	Provide Headquarters & Service company support
HQCO-OPS-6003	Operate AGS Operations Center (AGSOC)
MTCO-OPS-6001	Plan motor transportation company services
MTCO-OPS-6002	Train Motor Transportation company personnel
MTCO-OPS-6003	Provide motor transportation company services
MTCO-OPS-6004	Establish a tactical motor pool

MTCO-OPS-6005	Conduct convoy operations
AOPS-ARFF-5001	Provide ARFF services
ENGR-EQIP-5001	Provide engineer equipment support
ENGR-HORZ-5001	Conduct horizontal construction
ENGR-HORZ-5002	Prepare site for construction
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 expedient Helicopter Landing Zone (HLZ)
ENGR-UTIL-5001	Provide utilities support
ENGR-VERT-5001	Conduct vertical construction
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-MED-5001	Provide medical services
HQCO-MED-5002	Perform mass casualty
HQCO-OPS-5001	Conduct Minimum Operating Strip (MOS) selection
MTCO-OPS-5001	Conduct convoy operations
MTCO-OPS-5002	Establish a tactical motor pool
AOPS-ARFF-4001	Conduct structural firefighting operations
AOPS-ARFF-4002	Conduct ARFF operations
AOPS-EOD-4001	Provide Support to Other Government Agencies in support of the Homeland Defense Mission
ENGR-EQIP-4001	Conduct Material Handling Equipment (MHE) operations
ENGR-HORZ-4001	Conduct horizontal construction
ENGR-MOBL-4001	Conduct route improvement
ENGR-MOBL-4002	Repair runway crater
ENGR-MOBL-4003	Repair spall(s)
ENGR-MOBL-4004	Conduct dismounted route sweep operations
ENGR-UTIL-4001	Provide tactical electrical power
ENGR-VERT-4001	Construct manufactured steel structure
ENGR-VERT-4002	Construct wood frame structure
ENGR-VERT-4003	Construct concrete block structure
HQCO-COMM-4001	Establish data network services
HQCO-OPS-4002	Conduct Damage Assessment and Response Team (DART) activities
AOPS-EOD-3001	Respond to an aircraft incident
AOPS-EOD-3002	Conduct CBRN Response Operations
AOPS-EOD-3003	Conduct disposal of explosive components
AOPS-EOD-3004	Conduct post blast analysis
AOPS-EOD-3005	Conduct sensitive site exploitation
AOPS-EOD-3006	Conduct unexploded explosive ordnance (UXO) response operations
AOPS-EOD-3007	Conduct full spectrum EOD operations
AOPS-EOD-3008	Conduct IED operations
AOPS-EOD-3009	Conduct WMD operations
AOPS-EOD-3010	Conduct conventional explosive ordnance operations
AOPS-EOD-3011	Provide nuclear ordnance operations
ENGR-RECN-3001	Assess damage to airfield surfaces

ENGR-RECN-3002	Assess damage to airfield facilities
ENGR-RECN-3005	Conduct obstacle reconnaissance
ENGR-RECN-3006	Conduct bridge reconnaissance
ENGR-RECN-3007	Conduct road reconnaissance
ENGR-UTIL-3001	Establish tactical power distribution system
ENGR-UTIL-3003	Establish power generation site(s)
ENGR-UTIL-3007	Produce potable water
ENGR-VERT-3001	Fell standing timber
HQCO-CBRN-3003	Conduct operational decontamination

MWSS T&R MANUAL

CHAPTER 3

COLLECTIVE EVENTS

CHAPTER 3

COLLECTIVE EVENTS

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:

Code	Description
AOPS	Airfield Operations Company
ENGR	Engineer Company
HQCO	Headquarters & Service Company
MTCO	Motor Transportation Company
SQDR	Squadron

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

Code	Description
ABGD	Air Base Ground Defense
ADMN	Administration
AOPS	Airfield Operations
ARFF	Aircraft Rescue and Fire Fighting
CBRN	Chemical Biological Radiological Nuclear
CMOB	Countermobility
COMM	Communications
DEMO	Demolitions
EAF	Expeditionary Airfield
EOD	Explosive Ordnance Disposal
EOPS	Engineer Operations
EQIP	Heavy Equipment Operations
FOOD	Food Services
FUEL	Bulk Fuel
HORZ	Horizontal Construction
LIC	Licensing
MANT	Maintenance
MED	Medical
MOBL	Mobility
OPS	Operations
PLAN	Planning
RECN	Reconnaissance
SQDR	Squadron
SURV	Survivability

UTIL Utilities
VERT Vertical Construction

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:

Code	Description
7000	Squadron Level
6000	Company Level
5000	Platoon Level
4000	Squad/Section Level
3000	Crew Level

3002. INDEX OF COLLECTIVE EVENTS

EVENT CODE	E-CODED	EVENT	PAGE
7000-LEVEL			
SQDR-OPS-7001	**Y**	Train AGS forces	3-7
SQDR-OPS-7002	**Y**	Command and Control AGS	3-9
SQDR-OPS-7003	**Y**	Establish AGS Operations Center (AGSOC)	3-9
SQDR-OPS-7004	**Y**	Conduct Base Recovery After Attack (BRAAT) operations	3-10
SQDR-OPS-7005	**Y**	Establish Base/Airfield security operations	3-11
SQDR-OPS-7006	**Y**	Conduct aircraft salvage operations	3-12
SQDR-PLAN-7001	**Y**	Plan AGS operations	3-14
SQDR-PLAN-7002	**Y**	Plan FOB operations	3-16
SQDR-PLAN-7003	**Y**	Plan Base/Airfield security operations	3-17
6000-LEVEL			
AOPS-ARFF-6001	**Y**	Plan Aircraft Rescue and Fire Fighting (ARFF) services	3-18
AOPS-ARFF-6002	**Y**	Conduct mass casualty operations	3-19
AOPS-EAF-6001	**Y**	Plan Expeditionary Airfield (EAF) services	3-20
AOPS-OPS-6001	**Y**	Train Air Operations personnel	3-21
AOPS-OPS-6002	**Y**	Provide Air Operations services	3-22
ENGR-OPS-6001	**Y**	Plan engineer operations	3-23
ENGR-OPS-6002	**Y**	Command and Control engineer forces	3-24
ENGR-OPS-6003	**Y**	Train Engineer company personnel	3-25
ENGR-OPS-6004	**Y**	Conduct general engineering operations	3-26
ENGR-OPS-6005	**Y**	Conduct countermobility operations	3-28
HQCO-ABGD-6001	**Y**	Conduct BDOC operations	3-29
HQCO-ABGD-6002	**Y**	Provide delay tactics against level III threats	3-30
HQCO-OPS-6001	**Y**	Train Headquarters & Service company personnel	3-31
HQCO-OPS-6002	**Y**	Provide Headquarters & Service company support	3-32
HQCO-OPS-6003	**Y**	Operate AGS Operations Center AGSOC	3-33
MTCO-OPS-6001	**Y**	Plan Motor Transportation company services	3-34
MTCO-OPS-6002	**Y**	Train Motor Transportation company personnel	3-36
MTCO-OPS-6003	**Y**	Provide Motor Transportation company services	3-37
MTCO-OPS-6004	**Y**	Establish a tactical motor pool	3-38
MTCO-OPS-6005	**Y**	Conduct convoy operations	3-39

5000-LEVEL			
AOPS-ARFF-5001	**Y**	Provide ARFF services	3-40
AOPS-EAF-5001	**Y**	Provide EAF services	3-41
AOPS-FUEL-5001	**Y**	Conduct Forward Arming and Refueling Point (FARP)	3-42
AOPS-FUEL-5002	**Y**	Construct bulk fuel site	3-43
AOPS-FUEL-5003		Conduct tactical bulk fuel operations	3-44
ENGR-EQIP-5001	**Y**	Provide engineer equipment support	3-45
ENGR-HORZ-5001	**Y**	Conduct horizontal construction	3-47
ENGR-HORZ-5002	**Y**	Prepare site for construction	3-49
ENGR-MANT-5001	**Y**	Maintain engineer equipment	3-50
ENGR-MOBL-5001	**Y**	Conduct Airfield Damage Repair (ADR)	3-51
ENGR-MOBL-5002	**Y**	Construct Tactical Landing Zones (TLZs)	3-53
ENGR-MOBL-5003	**Y**	Conduct area clearance operations	3-54
ENGR-MOBL-5004	**Y**	Construct expedient Helicopter Landing Zone (HLZ)	3-55
ENGR-OPS-5001		Conduct demolition operations	3-57
ENGR-RECN-5001	**Y**	Conduct engineer reconnaissance	3-58
ENGR-SURV-5001	**Y**	Construct survivability positions	3-59
ENGR-SURV-5002	**Y**	Harden existing structure(s)	3-61
ENGR-UTIL-5001	**Y**	Provide utilities support	3-62
ENGR-VERT-5001	**Y**	Conduct vertical construction	3-64
HQCO-ABGD-5001	**Y**	Conduct guard force operations	3-65
HQCO-ABGD-5002	**Y**	Conduct response force operations	3-66
HQCO-ABGD-5003	**Y**	Conduct tenant unit force operations	3-67
HQCO-ABGD-5004	**Y**	Establish provisional security forces	3-68
HQCO-COMM-5001	**Y**	Provide single channel radio services	3-69
HQCO-COMM-5002	**Y**	Provide telephone services	3-70
HQCO-COMM-5003	**Y**	Execute a cabling plan	3-71
HQCO-COMM-5004	**Y**	Provide data network services	3-71
HQCO-COMM-5005	**Y**	Provide a communications network in support of a command element	3-72
HQCO-MED-5001	**Y**	Provide Medical Services	3-73
HQCO-MED-5002	**Y**	Perform mass casualty	3-74
HQCO-OPS-5001	**Y**	Conduct Minimal Operating Strip (MOS) selection	3-75
MTCO-OPS-5001	**Y**	Conduct convoy operations	3-77
MTCO-OPS-5002	**Y**	Establish a tactical motor pool	3-78
4000-LEVEL			
AOPS-ARFF-4001	**Y**	Conduct structural firefighting operations	3-78
AOPS-ARFF-4002	**Y**	Conduct ARFF operations	3-79
AOPS-EAF-4001	**Y**	Provide aircraft arrestment capability	3-80
AOPS-EAF-4002	**Y**	Provide visual landing aids for terminal guidance of aircraft	3-81
AOPS-EAF-4003	**Y**	Provide airfield lighting/marking	3-82
AOPS-EAF-4004	**Y**	Conduct aircraft arrestment/recovery operations	3-82
AOPS-EAF-4005	**Y**	Conduct expedient Tactical Landing Zone (TLZ) site survey	3-83
AOPS-EOD-4001	**Y**	Provide Support to Other Government Agencies in support of the Homeland Defense Mission	3-84
AOPS-EOD-4002		Conduct emergency decontamination operations	3-85
AOPS-FUEL-4001	**Y**	Maintain bulk fuel distribution site	3-86

ENGR-CMOB-4001	**Y**	Create an explosive obstacle	3-87
ENGR-CMOB-4002	**Y**	Create a non-explosive obstacle/barriers	3-89
ENGR-CMOB-4003	**Y**	Employ demolitions in support of countermobility operations	3-91
ENGR-EQIP-4001	**Y**	Conduct Material Handling Equipment (MHE) operations	3-93
ENGR-HORZ-4001	**Y**	Conduct horizontal construction	3-94
ENGR-MANT-4001	**Y**	Maintain engineer equipment	3-96
ENGR-MOBL-4001	**Y**	Conduct route improvement	3-97
ENGR-MOBL-4002	**Y**	Repair runway crater	3-98
ENGR-MOBL-4003	**Y**	Repair spall(s)	3-100
ENGR-MOBL-4004	**Y**	Conduct dismounted route sweep operations	3-101
ENGR-MOBL-4005		Employ demolitions in support of mobility operations	3-103
ENGR-RECN-4001		Conduct site survey	3-104
ENGR-RECN-4002		Conduct zone reconnaissance	3-106
ENGR-RECN-4003		Conduct route reconnaissance	3-107
ENGR-RECN-4004		Conduct area reconnaissance	3-108
ENGR-SURV-4001		Harden existing structure	3-109
ENGR-SURV-4002		Construct field fortifications	3-111
ENGR-SURV-4003		Construct Vehicle Control Point (VCP)	3-112
ENGR-SURV-4004		Construct Entry Access Point (EAP)	3-114
ENGR-SURV-4005		Construct earth filled barrier/structure	3-116
ENGR-SURV-4006		Employ demolitions in support of survivability operations	3-117
ENGR-SURV-4007	**Y**	Construct vehicle survivability position/revetment	3-118
ENGR-UTIL-4001	**Y**	Provide tactical electrical power	3-120
ENGR-UTIL-4002	**Y**	Provide potable water	3-121
ENGR-UTIL-4003	**Y**	Provide tactical hygiene support	3-122
ENGR-VERT-4001		Construct manufactured steel structure	3-123
ENGR-VERT-4002	**Y**	Construct wood frame structure	3-124
ENGR-VERT-4003	**Y**	Construct concrete block structure	3-126
ENGR-VERT-4004		Construct timber structure	3-127
ENGR-VERT-4005		Repair existing structures	3-128
ENGR-VERT-4006		Construct concrete structure	3-130
ENGR-VERT-4007		Construct expedient drainage structure	3-131
HQCO-ABGD-4001	**Y**	Implement security measures	3-132
HQCO-ABGD-4002	**Y**	Employ Force Protection Conditions (FPCON)	3-133
HQCO-ABGD-4003	**Y**	Employ security objectives	3-134
HQCO-ABGD-4004	**Y**	Employ security principles	3-135
HQCO-ABGD-4005	**Y**	Employ security tasks	3-135
HQCO-ABGD-4006	**Y**	Employ security and control procedures	3-136
HQCO-ABGD-4007		Process detained personnel	3-138
HQCO-COMM-4001	**Y**	Establish data network services	3-139
HQCO-COMM-4002		Install trunked telephony services	3-140
HQCO-MED-4001		Coordinate patient movement	3-141
HQCO-OPS-4001		Conduct Damage Assessment Team (DAT) activities	3-141
HQCO-OPS-4002	**Y**	Conduct Damage Assessment and Response Team (DART) activities	3-142
MTCO-LIC-4001		Provide a licensing program	3-143

MTCO-OPS-4001	**Y**	Conduct convoy operations	3-144
3000-LEVEL			
AOPS-EOD-3001	**Y**	Respond to an aircraft incident	3-145
AOPS-EOD-3002	**Y**	Conduct CBRN Response Operations	3-146
AOPS-EOD-3003	**Y**	Conduct disposal of explosive components	3-147
AOPS-EOD-3004	**Y**	Conduct post blast analysis	3-148
AOPS-EOD-3005	**Y**	Conduct sensitive site exploitation	3-149
AOPS-EOD-3006	**Y**	Conduct unexploded explosive ordnance (UXO) response operations	3-150
AOPS-EOD-3007	**Y**	Conduct full spectrum EOD operations	3-151
AOPS-EOD-3008	**Y**	Conduct IED operations	3-152
AOPS-EOD-3009	**Y**	Conduct WMD operations	3-153
AOPS-EOD-3010	**Y**	Conduct conventional explosive ordnance operations	3-154
AOPS-EOD-3011	**Y**	Provide nuclear ordnance operations	3-155
AOPS-EOD-3012		Conduct tactical combat casualty care	3-156
AOPS-FUEL-3001		Maintain bulk fuel distribution site	3-157
AOPS-FUEL-3002		Conduct aircraft fueling operations	3-158
AOPS-FUEL-3003		Conduct mobile fueling operations	3-159
ENGR-CMOB-3001	**Y**	Construct demolition obstacles	3-161
ENGR-CMOB-3002	**Y**	Construct field expedient obstacle	3-162
ENGR-CMOB-3003		Employ explosive obstacles	3-163
ENGR-CMOB-3004	**Y**	Build non-explosive obstacles	3-165
ENGR-EQIP-3001		Provide crane support	3-167
ENGR-EQIP-3002		Provide Material Handling Equipment (MHE) support	3-167
ENGR-EQIP-3003		Provide earthmoving equipment support	3-168
ENGR-EQIP-3004		Conduct runway sweeping operations	3-169
ENGR-HORZ-3001		Conduct dust abatement	3-170
ENGR-MANT-3001	**Y**	Maintain engineer equipment	3-171
ENGR-MANT-3002		Employ maintenance team	3-172
ENGR-MANT-3003		Maintain tactical power distribution system(s)	3-173
ENGR-MANT-3004	**Y**	Maintain water purification equipment	3-174
ENGR-MANT-3005	**Y**	Maintain hygiene equipment	3-175
ENGR-MANT-3006		Maintain refrigeration system(s)	3-176
ENGR-MANT-3007		Maintain Environmental Control Units (ECU)	3-178
ENGR-RECN-3001	**Y**	Assess damage to airfield surfaces	3-179
ENGR-RECN-3002	**Y**	Assess damage to airfield facilities and structures	3-180
ENGR-RECN-3003		Survey site for construction	3-181
ENGR-RECN-3004		Conduct cache sweep	3-182
ENGR-RECN-3005	**Y**	Conduct obstacle reconnaissance	3-183
ENGR-RECN-3006	**Y**	Conduct bridge reconnaissance	3-184
ENGR-RECN-3007	**Y**	Conduct road reconnaissance	3-185
ENGR-SURV-3001	**Y**	Construct vehicle survivability position/revetment	3-186
ENGR-SURV-3002	**Y**	Construct individual fighting position	3-187
ENGR-SURV-3003	**Y**	Construct crew served weapons position	3-188
ENGR-SURV-3004	**Y**	Construct overhead cover	3-190
ENGR-SURV-3005		Construct triggering screen	3-191
ENGR-SURV-3006	**Y**	Construct shelter/bunkers	3-192

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

3003. 7000-LEVEL EVENTS

SQDR-OPS-7001: Train AGS forces

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: 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:
1. Conduct problem framing.
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:
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/PERSONNEL: 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 (MCPP)

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

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

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.
6. Conduct Minimum Operating Strip (MOS) selection.
7. Conduct airfield damage repair.
8. Employ aircraft arresting gear systems.
9. Provide MOS marking and lighting.
10. Restore airfield lighting.
11. Conduct CBRN contamination monitoring.
12. Conduct mass casualty operations.
13. Provide medical services.
14. Isolate damaged utilities.
15. Provide emergency utilities.
16. Conduct firefighting operations.
17. Conduct debris cleanup.

CHAINED EVENTS:

AOPS-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

SQDR-OPS-7005: Establish Base/Airfield security operations

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.

SQDR-OPS-7006: Conduct aircraft salvage operations

SUPPORTED 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:

AOPS-ARFF-4002	AOPS-EOD-3001	AOPS-EOD-3007
AOPS-OPS-6002	ENGR-EQIP-5001	ENGR-OPS-5001
ENGR-OPS-6004	HQCO-COMM-5001	HQCO-MED-5001
HQCO-OPS-6002	MTCO-OPS-6005	

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
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-OD Principal Technical Characteristics of U.S. Marine Corps Motor Transportation Equipment

SUPPORT REQUIREMENTS:

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

SQDR-PLAN-7001: Plan AGS operations

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: 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-HSS-2003	0491-MNT-2004	0491-OPS-2007
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):
MCT 4.6.3 MCT 5.3.2.12 MCT 5.3.3.3

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
MTCO-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

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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.
10. Plan threat level response.
11. Conduct intelligence preparation of rear area/air base.
12. Establish Base Defense Operations Center (BDOC).
13. Identify appropriate security force for the security operations.

CHAINED EVENTS:

ENGR-CMOB-4002	ENGR-CMOB-4003	ENGR-OPS-6004
ENGR-OPS-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.
7. Provide support for casualty treatment.
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/PERSONNEL: 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.
14. Coordinate certification 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):
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. 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:
1. Conduct problem framing.
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:
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.
4. Compare 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 (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

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.

ENGR-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:

1. Conduct problem framing.
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.
9. Develop lesson materials.
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:

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. 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.
12. Provide expeditionary horizontal construction.
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

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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.
6. Issue orders.
7. Construct obstacles and barriers.
8. Maintain obstacles and barriers.
9. Submit reports as required.

CHAINED EVENTS:

ENGR-HORZ-5001 ENGR-OPS-5001

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

opportunity.
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: ABGD 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.
12. Document event.

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:
1. Conduct problem framing.
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 (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

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 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-ARFF-5001	AOPS-EAF-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 00-80T-109 Aircraft Refueling NATOPS Manual
9. NAVAIRINST 13800.12B Certification of Expeditionary Airfield AM-2 Mat Installations, Aircraft Recovery Equipment, Visual/Optical Landing Aids, and Marking/Lighting Systems
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

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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

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MTCO-OPS-6002: Train Motor Transportation company personnel

SUPPORTED MET(S):
MCT 5.3.3.3 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 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:
1. Conduct problem framing.
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)
8. TM 11240-15/3_ Motor Vehicle Licensing Official's Manual
9. TM 11240-OD Principal Technical Characteristics of U.S. Marine Corps Motor Transportation Equipment

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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

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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.
9. Perform land navigation.
10. Prepare a convoy commander's after action report.

CHAINED EVENTS: MTCO-OPS-5001

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-OI/1A Operators Manual for Semitrailer, Tank: 5,000 Gallon Fuel Dispensing, Under/Overwing Aircraft (MK970)
6. TM 10629A-OD Operation Manual with Components List for Truck, Cargo, 7-Ton
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

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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).
9. Utilize standby alert positions.
10. Employ ARFF/structural firefighting duty sections.
11. Develop Fire Inspection/Safety Program.
12. Implement Fire Inspection/Safety Program.
13. Coordinate with personnel designing/constructing Base Camp to ensure compliance with Tent Camp Fire Safety procedures (tent spacing, fire

lanes, etc.).
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 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)

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:

AOPS-EAF-4001 AOPS-EAF-4002 AOPS-EAF-4003
AOPS-EAF-4004

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
1371-HORZ-2003	1390-XENG-2001	1390-XENG-2011
1390-XENG-2012	1390-XENG-2014	1390-XENG-2015
1391-XENG-1001	1391-XENG-1002	1391-XENG-1014
1391-XENG-2009	1391-XENG-2017	1391-XENG-2018

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.

6. Store fuel.
7. Change product types as required.
8. Test fuel quality as required.
9. Coordinate for fuel distribution.
10. Dispense fuel as required.

CHAINED EVENTS:
AOPS-FUEL-4001 ENGR-RECN-4001

RELATED EVENTS:

1390-XENG-2001	1390-XENG-2002	1390-XENG-2003
1390-XENG-2004	1390-XENG-2005	1390-XENG-2006
1390-XENG-2007	1390-XENG-2009	1390-XENG-2010
1390-XENG-2011	1390-XENG-2012	1390-XENG-2013
1390-XENG-2014	1390-XENG-2015	1391-XENG-1001
1391-XENG-1002	1391-XENG-1003	1391-XENG-1004
1391-XENG-1005	1391-XENG-1006	1391-XENG-1007
1391-XENG-1008	1391-XENG-1009	1391-XENG-1011
1391-XENG-1012	1391-XENG-1013	1391-XENG-1014
1391-XENG-1015	1391-XENG-2001	1391-XENG-2002
1391-XENG-2003	1391-XENG-2004	1391-XENG-2005
1391-XENG-2006	1391-XENG-2007	1391-XENG-2008

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 Liquids Operations
5. MIL STD 3004 Quality Surveillance Handbook for Fuels, Lubricants and Related Products
6. NAVAIR 00-80T-109 Aircraft Refueling NATOPS Manual
7. TB 10-5430-253-13 Technical Bulletin for Collapsible Fabric Fuel tanks
8. TM 3835-OI/1A 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.

ENGR-EQIP-5001: Provide engineer equipment support

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

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:

1310-ADMN-2001	1310-ADMN-2002	1310-ADMN-2003
1310-ADMN-2004	1310-ADMN-2005	1310-ADMN-2006
1310-ADMN-2007	1310-ADMN-2008	1310-ADMN-2009
1310-ADMN-2010	1310-HEOP-2001	1310-HORZ-2001
1310-HORZ-2002	1310-HORZ-2003	1310-MANT-2001
1310-MANT-2002	1341-ADMN-2001	1341-ADMN-2002
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-1007	1345-HEOP-2001	1345-HEOP-2002
1345-HEOP-2003	1345-HEOP-2004	1345-HEOP-2005
1345-HEOP-2009	1345-HEOP-2010	1345-MANT-1001

1345-MANT-2003	1345-MANT-2004	1349-ADMN-2001
1349-ADMN-2002	1349-ADMN-2003	1349-ADMN-2004
1349-ADMN-2005	1349-ADMN-2006	1349-ADMN-2007
1349-ADMN-2008	1349-ADMN-2009	1349-ADMN-2010
1349-HEOP-2001	1349-HORZ-2001	1349-HORZ-2002
1349-HORZ-2003	1349-MANT-2001	1349-MANT-2002

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.
4. Conduct site preparation.
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
1302-RECN-1001	1310-HEOP-2001	1310-HORZ-2001
1310-HORZ-2002	1310-HORZ-2003	1349-HEOP-2001
1349-HORZ-2001	1349-HORZ-2002	1349-HORZ-2003
1349-MANT-2002	1371-CMOB-2001	1371-CMOB-2002
1371-HORZ-2001	1371-HORZ-2002	1371-HORZ-2003
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-HORZ-1003	1302-MOBL-1001
1302-RECN-1001	1371-DEMO-1001	1371-DEMO-2002
1371-EOPS-2005	1371-EOPS-2006	1371-EOPS-2007
1371-HORZ-1001	1371-HORZ-1002	1371-HORZ-1003
1371-HORZ-2002	1371-HORZ-2003	1371-HORZ-2004

1371-HORZ-2005	1371-RECN-1001	1371-RECN-2001
1371-VERT-1001	1371-VERT-1002	1371-VERT-1003
1371-VERT-1004	1371-VERT-2001	1371-VERT-2002

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-2007	1120-ADMN-2012
1120-ADMN-2021	1120-ADMN-2022	1120-ADMN-2041
1120-ADMN-2051	1120-ADMN-2052	1120-ADMN-2061
1120-ADMN-2065	1120-ADMN-2071	1120-ADMN-2072
1120-ADMN-2073	1120-ADMN-2074	1120-ADMN-2075
1310-ADMN-2004	1310-HEOP-2001	1310-MANT-2001
1310-MANT-2002	1316-ADMN-1001	1316-ADMN-1002
1316-ADMN-1003	1316-MANT-1002	1316-MANT-1004
1316-XENG-1001	1316-XENG-1002	1316-XENG-1004
1316-XENG-1005	1316-XENG-1006	

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-MOBL-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-EOPS-2002 1371-EOPS-2003 1371-EOPS-2004
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:

1349-HEOP-2001	1349-HORZ-2001	1349-HORZ-2002
1361-XENG-2001	1371-HORZ-2001	1371-MOBL-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 3-17.7L 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.

CHAINED 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-2018	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.
6. Employ demolitions in support of survivability position construction.
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
1371-DEMO-2002	1371-RECN-1001	1371-RECN-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. Emplace 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:

ENGR-EQIP-3003	ENGR-EQIP-4001	ENGR-RECN-4001
ENGR-SURV-3001	ENGR-SURV-3002	ENGR-SURV-3003
ENGR-SURV-3004	ENGR-SURV-3005	ENGR-SURV-3006
ENGR-SURV-3007	ENGR-SURV-4001	ENGR-SURV-4002
ENGR-SURV-4003	ENGR-SURV-4004	ENGR-SURV-4005
ENGR-SURV-4007	ENGR-UTIL-3004	HQCO-ABGD-4001
HQCO-ABGD-4002	HQCO-ABGD-4003	HQCO-ABGD-4004
HQCO-ABGD-4005	HQCO-ABGD-4006	

RELATED EVENTS:

1302-SURV-1001	1302-SURV-1002	1302-SURV-1003
1302-SURV-1004	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. 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.
6. Conduct site preparation.
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

1120-ADMN-2052	1120-ADMN-2061	1120-ADMN-2065
1120-ADMN-2071	1120-ADMN-2072	1120-ADMN-2073
1120-ADMN-2074	1120-ADMN-2075	1120-ADMN-2081
1120-ADMN-2091	1120-ADMN-2092	1120-XENG-2501
1120-XENG-2502	1120-XENG-2521	1120-XENG-2522
1120-XENG-2541	1120-XENG-2553	1120-XENG-2555
1120-XENG-2558	1120-XENG-2561	1120-XENG-2581
1120-XENG-2621	1120-XENG-2622	1120-XENG-2641
1120-XENG-2653	1120-XENG-2655	1120-XENG-2658
1120-XENG-2721	1120-XENG-2741	1120-XENG-2752
1120-XENG-2753	1120-XENG-2755	1120-XENG-2758
1120-XENG-2821	1120-XENG-2841	1120-XENG-2853
1120-XENG-2855	1120-XENG-2858	1120-XENG-2965
1120-XENG-2966	1120-XENG-2988	1120-XENG-2989

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)
3. 29 CFR 1910.269 Chapter 29, Code of Federal Regulations, Part Number 1910 (Occupational Safety and Health Standards), Standard Number 269 - Electrical Power Generation, Transmission, and Distribution
4. 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
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:

ENGR-EQIP-4001	ENGR-HORZ-4001	ENGR-RECN-4001
ENGR-UTIL-3004	ENGR-UTIL-3012	ENGR-VERT-4001
ENGR-VERT-4002	ENGR-VERT-4003	ENGR-VERT-4004
ENGR-VERT-4005	ENGR-VERT-4006	ENGR-VERT-4007

RELATED EVENTS:

1302-HORZ-1001	1302-RECN-1001	1302-VERT-1001
1371-EOPS-2005	1371-EOPS-2006	1371-EOPS-2007
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

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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.
9. 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. 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 commands 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-MNGT-2701
0650-MNGT-2702	0650-MNGT-2703	0650-MNGT-2704
0650-MNGT-2708	0650-MNGT-2711	0650-PLAN-2101
0650-PLAN-2102	0651-INST-2401	0651-INST-2402
0651-INST-2403	0651-INST-2404	0651-MANT-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.
4. Establish telephone networks.
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.
9. Establish data networks.
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.

6. Provide temporary shelter in conjunction with emergency treatment.
7. Transfer evacuees from aid station to evacuation platform.
8. Initiate medical treatment of combat stress casualties.
9. Provide routine sick call.
10. Provide ancillary services as stated in the TO/TE.
11. Maintain health records.
12. Coordinate personnel replacements/augmentees.
13. Provide medical resupply (replenishment).
14. Process disease non battle injury (DNBI) report.
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.
4. Conduct triage.

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).
9. Evacuate casualties.

CHAINED EVENTS:

HQCO-MED-3001	HQCO-MED-3002	HQCO-MED-4001

RELATED EVENTS:

8404-HSS-2002	8404-HSS-2003	8404-HSS-2004
8404-MED-2001	8404-MED-2002	8404-MED-2003
8404-MED-2004	8404-MED-2005	8404-MED-2006
8404-MED-2007	8404-MED-2008	8404-MED-2009
8404-MED-2011	8404-MED-2012	8427-MED-2001
8427-MED-2002	FMSO-HSS-2001	FMSO-HSS-2002
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

SUPPORT REQUIREMENTS:

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

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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:
1. Coordinate response of firefighting personnel/vehicles.
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.
9. Gather information for Incident Report.
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
4. NFPA 1002 Standard for Fire Apparatus Driver/Operator 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 fire fighting 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:
1. Coordinate response of ARFF personnel/vehicles.
2. Coordinate approach/positioning of vehicles at the mishap site.
3. Coordinate extrication/rescue/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.
9. Gather information for Incident Report.
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
4. NFPA 1002 Standard for Fire Apparatus Driver/Operator 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

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AOPS-EAF-4003: Provide airfield lighting/marking

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/PERSONNEL: 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/PERSONNEL: 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
4. CFR 49 Code of Federal Regulations - Hazardous Materials
5. DODDIR 3150.8 DOD Response to Radiological Accidents

SUPPORT REQUIREMENTS:

ORDNANCE:

DODIC	Quantity
K765 Riot Control Agent, CS	12 per Section

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.
4. Construct tactical fuel system (TFS) (mission dependent).
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:
1310-ADMN-2009 1310-ADMN-2010 1310-HORZ-2001

1310-HORZ-2002	1345-HEOP-1001	1345-HEOP-1002
1345-HEOP-1003	1345-HEOP-1006	1345-MANT-1001
1349-ADMN-2009	1349-ADMN-2010	1349-HEOP-2001
1349-MANT-2002	1391-XENG-1001	1391-XENG-1002
1391-XENG-1004	1391-XENG-1005	1391-XENG-1006
1391-XENG-1007	1391-XENG-1008	1391-XENG-1009
1391-XENG-1011	1391-XENG-1012	1391-XENG-1013
1391-XENG-1014	1391-XENG-1015	

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. TB 10-5430-253-13 Technical Bulletin for Collapsible Fabric Fuel tanks
7. TM 3835-OI/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:

ENGR-CMOB-3001	ENGR-CMOB-3002

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-1001
1345-ADMN-2002	1345-HEOP-1003	1345-HEOP-1004
1345-HEOP-1005	1345-HEOP-1006	1345-HEOP-2009
1345-MANT-1001	1349-ADMN-2002	1349-ADMN-2006
1349-ADMN-2009	1349-ADMN-2010	1349-HEOP-2001
1349-MANT-2002	1371-CMOB-1003	1371-CMOB-2001
1371-CMOB-2001	1371-CMOB-2002	1371-CMOB-2003
1371-DEMO-1002		

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:

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

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/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.

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	1302-CMOB-1002	1310-HEOP-2001
1310-HORZ-2001	1310-HORZ-2002	1310-MANT-2002
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
1345-HEOP-1006	1345-HEOP-2009	1345-HORZ-2001
1349-HEOP-2001	1349-HORZ-2001	1349-HORZ-2002
1349-MANT-2002	1371-CMOB-1001	1371-CMOB-2001
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:

ORDNANCE:

DODIC	Quantity
L495 Flare, Surface Trip M49 Series	6 flares per squad
M032 Charge, Demolition Block TNT 1-Pound	12 charges per squad
M039 Charge, Demolition Cratering 40-Poun	12 charges per squad
M130 Cap, Blasting Electric M6	12 blasting caps per squad
M131 Cap, Blasting Non-Electric M7	12 blasting caps per squad
M327 Coupling Base, Firing Device with Pr	12 primers per squad
M421 Charge, Demolition Shaped M3 Series	8 charges per squad
M456 Cord, Detonating PETN Type I Class E	1000 FT per squad
M591 Dynamite, Military M1	10 charges per squad
M670 Fuse, Blasting Time M700	500 FT per squad
M757 Charge, Assembly Demolition M183 Com	6 cases per squad
ML03 Firing Device, Demolition Multi-Purp	12 primers per squad
MN08 Igniter, Time Blasting Fuse with Sho	12 igniters per squad
MN14 Firing Device, Dual Mode MK54	12 detonators per squad

MN52 MK154 Mod 0 8 detonators per squad

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/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-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).
6. Setup security.
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
1345-MANT-1001	1349-ADMN-2002	1349-ADMN-2006
1349-ADMN-2009	1349-ADMN-2010	1349-HEOP-2001
1349-MANT-2002	1371-CMOB-1003	1371-CMOB-2001
1371-CMOB-2003	1371-DEMO-1001	1371-DEMO-1002

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:

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

RANGE/TRAINING AREA:
Facility Code 17830 Light Demolition Range

EQUIPMENT: Engineer MHE, 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.

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:

1310-HEOP-2001	1310-HORZ-2001	1310-HORZ-2002
1310-HORZ-2003	1345-HEOP-2012	1345-HORZ-2001
1345-MANT-2001	1349-HEOP-2001	1349-HORZ-2001
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

1302-HORZ-1003	1302-MOBL-1016	1310-HORZ-2001
1310-HORZ-2002	1310-MANT-2002	1345-ADMN-2001
1345-ADMN-2002	1345-HEOP-2004	1345-HEOP-2009
1345-HEOP-2012	1345-HORZ-2001	1345-MANT-2001
1345-MANT-2003	1345-MANT-2004	1349-HORZ-2001
1349-HORZ-2002	1349-HORZ-2003	1361-DRAF-1001
1361-DRAF-1002	1361-SRVY-1001	1361-SRVY-1002
1361-SRVY-1003	1361-SRVY-1004	1361-SRVY-1005
1361-SRVY-1006	1361-SRVY-1008	1361-SRVY-1009
1361-SRVY-1010	1361-SRVY-1011	1361-SRVY-1012
1361-SRVY-2001	1361-SRVY-2002	1361-SRVY-2005
1361-XENG-2001	1371-EOPS-1001	1371-EOPS-1002
1371-EOPS-1003	1371-EOPS-1004	1371-EOPS-2006
1371-EOPS-2007	1371-EOPS-2008	1371-EOPS-2010
1371-EOPS-2011	1371-EOPS-2012	1371-HORZ-1001
1371-HORZ-1002	1371-HORZ-1003	1371-HORZ-2001
1371-HORZ-2002	1371-HORZ-2003	1371-HORZ-2004
1371-HORZ-2005	1371-MANT-1001	1371-MOBL-2001

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-ADMN-2004	1310-ADMN-2009	1310-MANT-2001
1310-MANT-2002	1341-ADMN-1001	1341-ADMN-1002
1341-ADMN-2002	1341-ADMN-2003	1341-ADMN-2004
1341-MANT-1001	1341-MANT-1002	1341-MANT-2010
1349-ADMN-2002	1349-ADMN-2004	1349-ADMN-2009
1349-ADMN-2010	1349-MANT-2001	1349-MANT-2002

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.

ENGR-MOBL-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:

1301-MOBL-1001	ENGR-RECN-3002	ENGR-RECN-3007
ENGR-RECN-5001		

CHAINED EVENTS:

ENGR-EQIP-3002	ENGR-EQIP-3003	ENGR-HORZ-3001
ENGR-RECN-3001	ENGR-VERT-3001	

RELATED EVENTS:

1302-MOBL-1002	1302-MOBL-1003	1302-MOBL-1004
1302-MOBL-1009	1302-MOBL-1010	1371-MOBL-2020
1371-MOBL-2021	1371-MOBL-2022	1371-MOBL-2023

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.
14. Reconstitute crater repair team.
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-4001
HQCO-OPS-4002		

RELATED EVENTS:

1302-EOPS-1004	1302-EOPS-1007	1302-RECN-1001
1310-HEOP-2001	1310-HORZ-2001	1349-HEOP-2001
1349-HORZ-2001	1371-EOPS-2004	1371-EOPS-2007
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

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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 air field 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

1302-RECN-1001	1310-HEOP-2001	1310-HORZ-2001
1349-HEOP-2001	1349-HORZ-2001	1371-EOPS-2004
1371-EOPS-2006	1371-EOPS-2007	1371-EOPS-2010
1371-EOPS-2011	1371-EOPS-2012	

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:

DODIC	Quantity
M032 Charge, Demolition Block TNT 1-Pound	10 charges per squad
M130 Cap, Blasting Electric M6	30 blasting caps per squad
M456 Cord, Detonating PETN Type I Class E	2000 FT per squad
M670 Fuse, Blasting Time M700	250 FT per squad
M757 Charge, Assembly Demolition M183 Com	2 cases per squad
MN08 Igniter, Time Blasting Fuse with Sho	25 igniters per squad
MN88 Cap, Blasting, 500 ft mini-tube M21	5 blasting caps per squad
MN90 Cap, Blasting, 1000 ft mini-tube M23	10 blasting caps per squad

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/PERSONNEL: 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).
6. Setup security.
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-DEMO-1001	1371-DEMO-2002	1371-DEMO-2005
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:

DODIC	Quantity
M023 Charge, Demolition Block M112 1-1/4	30 charges per squad
M032 Charge, Demolition Block TNT 1-Pound	30 charges per squad
M130 Cap, Blasting Electric M6	10 blasting caps per squad
M131 Cap, Blasting Non-Electric M7	20 blasting caps per squad
M456 Cord, Detonating PETN Type I Class E	2000 FT per squad
M591 Dynamite, Military M1	20 charges per squad
M670 Fuse, Blasting Time M700	1000 FT per squad
ML03 Firing Device, Demolition Multi-Purp	10 primers per squad
MN08 Igniter, Time Blasting Fuse with Sho	30 igniters per squad
MN52 MK154 Mod 0	20 detonators per squad

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-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	1361-XENG-2001	1361-XENG-2002
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/PERSONNEL: 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

Forces

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
1302-SURV-1005	1310-HEOP-2001	1310-HORZ-2001
1310-HORZ-2002	1349-HEOP-2001	1349-HORZ-2001
1349-HORZ-2002	1371-EOPS-2005	1371-EOPS-2006
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 3-17.7I 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-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-HEOP-2001	1310-HORZ-2001	1310-HORZ-2002
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-CMOB-2002	1371-CMOB-2003	1371-DEMO-1001
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 3-17.7D 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.
6. Conduct site preparation and layout.
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. Construct 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-HEOP-2001	1310-HORZ-2001	1310-HORZ-2002
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-CMOB-2002	1371-CMOB-2003	1371-DEMO-1001
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
1302-SURV-1003	1310-HEOP-2001	1310-HORZ-2001
1310-HORZ-2002	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-CMOB-2002	1371-CMOB-2003
1371-DEMO-1001	1371-EOPS-2006	1371-EOPS-2007
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
1302-SURV-1003	1310-HEOP-2001	1310-HORZ-2003
1345-HEOP-1003	1345-HEOP-1004	1345-HEOP-1005
1345-HEOP-1006	1349-HEOP-2001	1371-RECN-1001
1371-RECN-2001	1371-SURV-2001	1371-SURV-2002

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:

DODIC	Quantity
M023 Charge, Demolition Block M112 1-1/4	20 charges per squad
M032 Charge, Demolition Block TNT 1-Pound	20 charges per squad
M130 Cap, Blasting Electric M6	10 blasting caps per squad
M131 Cap, Blasting Non-Electric M7	20 blasting caps per squad
M456 Cord, Detonating PETN Type I Class E	2000 FT per squad
M591 Dynamite, Military M1	20 charges per squad
M670 Fuse, Blasting Time M700	500 FT per squad
ML03 Firing Device, Demolition Multi-Purp	10 primers per squad
MN08 Igniter, Time Blasting Fuse with Sho	20 igniters per squad
MN52 MK154 Mod 0	10 detonators per squad

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.

ENGR-SURV-4007: 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 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:

1302-SURV-1002	1302-SURV-1005	1302-VERT-1001

CHAINED EVENTS:

ENGR-EQIP-3003	ENGR-RECN-3003	ENGR-SURV-3001

RELATED EVENTS:

1302-SURV-1001	1302-SURV-1003	1310-ADMN-2004
1310-ADMN-2009	1310-ADMN-2010	1310-HEOP-2001
1310-HORZ-2001	1310-HORZ-2002	1310-HORZ-2003
1310-MANT-2002	1316-ADMN-2001	1316-ADMN-2002
1316-XENG-2002	1316-XENG-2005	1345-HEOP-1003
1345-HEOP-1004	1345-HEOP-1005	1345-HEOP-1006
1345-HEOP-1007	1345-HEOP-2006	1345-HEOP-2012
1345-MANT-1001	1345-MANT-2001	1349-HEOP-2001
1349-HORZ-2001	1349-HORZ-2002	1349-HORZ-2003
1371-EOPS-2010	1371-EOPS-2011	1371-EOPS-2012
1371-SURV-1001	1371-SURV-2001	

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-OD Principal Technical Characteristics of Expeditionary Power Systems Equipment
3. 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: 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:
1. Perform Water Recon.
2. Establish Water Point.
3. Produce Potable Water.
4. Store 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/PERSONNEL: 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-1004 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-SURV-1001	1371-VERT-1001
1371-VERT-1002	1371-VERT-1003	1371-VERT-1004

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-2006	1371-EOPS-2007	1371-EOPS-2008
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-1004	1371-EOPS-2006	1371-EOPS-2007
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

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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

ENGR-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

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ENGR-VERT-4007: Construct expedient drainage structure

SUPPORTED MET(S):
MCT 5.3.3.3 MCT 6.3.3

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.
9. Construct sandbag culvert.
10. Cover expedient culverts, as required.
11. Construct expedient head/wing walls, as required.
12. Submit required reports.

PREREQUISITE EVENTS:

1302-HORZ-1001	1302-HORZ-1002	1371-HORZ-2002
ENGR-RECN-4001	ENGR-RECN-5001	

CHAINED EVENTS:

ENGR-EQIP-3002	ENGR-EQIP-3003	ENGR-HORZ-3001
ENGR-RECN-3001	ENGR-UTIL-3001	ENGR-VERT-3001

RELATED EVENTS:

1345-ADMN-2002	1345-HEOP-1003	1345-HEOP-1004
1345-HEOP-1005	1345-HEOP-1006	1345-HEOP-1007

1345-HEOP-2009	1345-MANT-1001	1361-DRAF-1001
1361-DRAF-1002	1361-SRVY-1011	1361-SRVY-2001
1371-EOPS-2006	1371-EOPS-2007	1371-EOPS-2008
1371-EOPS-2010	1371-EOPS-2011	1371-HORZ-2001
1371-HORZ-2003		

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.
16. Employ dispersion tactics.
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-3001
HQCO-ABGD-3002		

RELATED EVENTS:

MCCS-DEF-3002	MCCS-OFF-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 (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

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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.
4. Establish preventive measures for disruption of Aviation Ground Support.
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

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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

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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

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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.
19. Rehearse immediate actions and upgrade threat response posture.
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

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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-PLAN-2101
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-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

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.

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.
13. Report damage assessment to MOS selection team.
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.
4. Issue of U.S. Government Motor Vehicle Operator's Identification card (OF-346).
5. Maintain driver's history files.
6. Submit official correspondence.

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)
3. TM 11240-15/3_ Motor Vehicle Licensing Official's Manual

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-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

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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:
1. Conduct problem framing.

2. Develop Plan.
3. Execute 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.
8. Gain entry and search for secondary devices.
9. Perform render safe procedure.
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:

DODIC	Quantity
K765 Riot Control Agent, CS	12 per squad

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:

DODIC	Quantity
M023 Charge, Demolition Block M112 1-1/4	2 per Marine
M131 Cap, Blasting Non-Electric M7	10 per Marine
M456 Cord, Detonating PETN Type I Class E	100 FT per Marine
M670 Fuse, Blasting Time M700	100 FT per Marine
M757 Charge, Assembly Demolition M183 Com	1 per Marine
M980 Charge, Demolition Sheet 0.0831 Inch	2 FT per Marine
M981 Charge, Demolition Sheet 0.125 Inch	2 FT per Marine
M982 Charge, Demolition Sheet 0.161 Inch	2 FT per Marine
M986 Sheet Explosive	2 FT per Marine
MN08 Igniter, Time Blasting Fuse with Sho	10 per Marine

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:

2300-ADMN-2001	2300-INTL-2002	2301-C2-2001
2301-INTL-2001	2301-OPS-2002	2305-ADMN-2002

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:

DODIC	Quantity
B643 Cartridge, 60mm High Explosive M888	1 per Section
C869 Cartridge, 81mm HE M889/M889A1 with	1 per Section
DA54 Projectile, 155mm HE (IMX-101) w/Sup	1 per Section
M023 Charge, Demolition Block M112 1-1/4	3 per Section
M032 Charge, Demolition Block TNT 1-Pound	3 per Section
M039 Charge, Demolition Cratering 40-Poun	2 per Section
M130 Cap, Blasting Electric M6	13 per Section
M591 Dynamite, Military M1	3 per Section

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/PERSONNEL: Corpsman

AOPS-EOD-3005: Conduct sensitive site exploitation

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 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:
1. Conduct problem framing.
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.
6. Process scene.
7. Document findings.
8. Report as required.

CHAINED EVENTS: EOD-OPS-3001

RELATED EVENTS:

2300-ADMN-2001	2300-INTL-2002	2301-C2-2001
2301-OPS-2002	2301-OPS-2005	2301-OPS-2007
2305-ADMN-2002		

REFERENCES:

1. AEODPS 60 Series Automated EOD Publication System
2. CFR 49 Code of Federal Regulations - Hazardous Materials
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
9. OP 2239 Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

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:

1. Conduct problem framing.
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:

2300-ADMN-2001	2300-INTL-2001	2300-INTL-2002
2300-RSP-2001	2300-RSP-2002	2300-TOOL-2006
2300-TOOL-2012	2301-ADMN-2002	2301-C2-2001
2301-OPS-2002	2305-ADMN-2002	2305-OPS-2002

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
2. CFR 49 Code of Federal Regulations - Hazardous Materials
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
9. OP 2239 Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

DODIC	Quantity
M130 Cap, Blasting Electric M6	5 per Marine
M131 Cap, Blasting Non-Electric M7	5 per Marine
M174 Cartridge, Caliber .50 Impulse Elect	2 per Marine
M456 Cord, Detonating PETN Type I Class E	100 FT per Marine
M670 Fuse, Blasting Time M700	100 FT per Marine
M757 Charge, Assembly Demolition M183 Com	1 per Marine
M980 Charge, Demolition Sheet 0.0831 Inch	2 FT per Marine
M981 Charge, Demolition Sheet 0.125 Inch	2 FT per Marine
M982 Charge, Demolition Sheet 0.161 Inch	2 FT per Marine
M986 Sheet Explosive	2 FT per Marine
MN08 Igniter, Time Blasting Fuse with Sho	5 per Marine

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:
1. Conduct problem framing.

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-CBRN-2003	2300-IED-2001	2300-INTL-2001
2300-INTL-2002	2300-RSP-2002	2301-C2-2001
2301-INTL-2002	2301-OPS-2002	2301-RSP-2004
2305-ADMN-2002	2305-OPS-2002	

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
2. CFR 49 Code of Federal Regulations - Hazardous Materials
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
9. OP 2239 Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

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:
1. Conduct problem framing.
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:

2300-ADMN-2001	2300-IED-2001	2300-INTL-2002
2300-TOOL-2005	2300-TOOL-2006	2300-TOOL-2009
2301-C2-2001	2301-OPS-2002	2301-RSP-2004
2305-ADMN-2002	2305-OPS-2002	

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
2. CFR 49 Code of Federal Regulations - Hazardous Materials
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
9. OP 2239 Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

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:
1. Conduct problem framing.
2. Develop plan.
3. Task organize force.
4. Establish command and control.
5. Conduct site exploitation.
6. Monitor and survey environment.
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
2. CFR 49 Code of Federal Regulations - Hazardous Materials
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
9. OP 2239 Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

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:
1. Conduct problem framing.
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:

2300-ADMN-2001	2300-DEMO-2007	2301-C2-2001
2301-OPS-2002	2301-RSP-2001	2305-ADMN-2002
2305-INTL-2001	2305-OPS-2002	

REFERENCES:
1. AEODPS 60 Series Automated EOD Publication System
2. CFR 49 Code of Federal Regulations - Hazardous Materials
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
9. OP 2239 Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

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.
6. Monitor and survey environment.
7. Coordinate internal/external support, if applicable.
8. Mitigate situation.
9. Submit reports.

CHAINED EVENTS: EOD-OPS-3007

RELATED EVENTS:

2300-ADMN-2001	2300-CBRN-2002	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
2. CFR 49 Code of Federal Regulations - Hazardous Materials
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
9. OP 2239 Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

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:
1. Prehospital Trauma Life Support (PHTLS). National Association of Emergency Medical Technicians: current edition.

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).
6. Construct fuel receiving 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	1361-SRVY-2003	1390-XENG-2001
1390-XENG-2002	1390-XENG-2006	1390-XENG-2010
1390-XENG-2013	1390-XENG-2015	1391-XENG-1002
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/1A 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:
1390-XENG-2008 1390-XENG-2015 1391-XENG-2020

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
8. TB 10-5430-253-13 Technical Bulletin for Collapsible Fabric Fuel tanks
9. TC 21-305-20 Manual for the Wheeled Vehicle Operator
10. TM 08089B-OI/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
3534-OPER-2002	3534-OPER-2003	3534-OPER-2004

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 11165A-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

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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:

DODIC	Quantity
M023 Charge, Demolition Block M112 1-1/4	10 charges per Team
M030 Charge, Demolition Block TNT 1/4-Pou	4 charges per Team
M130 Cap, Blasting Electric M6	4 blasting caps per Team
M131 Cap, Blasting Non-Electric M7	4 blasting caps per Team
M456 Cord, Detonating PETN Type I Class E	1000 FT per Team

ML03 Firing Device, Demolition Multi-Purp 4 primers per Team

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

EQUIPMENT: PPE

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-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
1310-ADMN-2004	1310-ADMN-2010	1310-HEOP-2001
1310-MANT-2002	1316-ADMN-2001	1316-ADMN-2002
1316-XENG-1001	1316-XENG-1006	1316-XENG-2002
1345-ADMN-1002	1345-ADMN-2002	1345-HEOP-1004
1345-HEOP-2012	1345-MANT-1001	1345-MANT-2001
1349-ADMN-2002	1349-ADMN-2004	1349-ADMN-2009
1349-ADMN-2010	1349-HEOP-2001	1349-MANT-2002
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:

DODIC	Quantity
M032 Charge, Demolition Block TNT 1-Pound	20 charges per Team
M039 Charge, Demolition Cratering 40-Poun	1 charges per Team
M130 Cap, Blasting Electric M6	20 blasting caps per Team
M131 Cap, Blasting Non-Electric M7	20 blasting caps per Team
M420 Charge, Demolition Shaped M2 Series	1 charges 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, 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
1349-ADMN-2002	1349-ADMN-2006	1349-ADMN-2009
1349-ADMN-2010	1349-HEOP-2001	1349-MANT-2002
1371-CMOB-1003	1371-CMOB-2001	1371-CMOB-2003
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:

DODIC	Quantity
J007 Mine, Antipersonnel M18A 1 with Non-	2 mines per Team
L598 Simulator, Explosive Booby Trap Flas	10 Simulator per Team
M023 Charge, Demolition Block M112 1-1/4	20 charges per Team
M032 Charge, Demolition Block TNT 1-Pound	6 charges per Team
M327 Coupling Base, Firing Device with Pr	10 primers per Team
M456 Cord, Detonating PETN Type I Class E	1000 FT per Team
ML03 Firing Device, Demolition Multi-Purp	10 primers per Team

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.
4. Coordinate overwatch/ security for obstacle construction.
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
1310-ADMN-2010	1310-HEOP-2001	1310-MANT-2002
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
1345-MANT-2001	1345-MANT-2003	1345-MANT-2004
1349-ADMN-2002	1349-ADMN-2004	1349-ADMN-2009
1349-ADMN-2010	1349-HEOP-2001	1349-MANT-2002

1371-CMOB-1001 1371-CMOB-2001 1371-CMOB-2003

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:

DODIC	Quantity
L495 Flare, Surface Trip M49 Series	2 flares per Team
M032 Charge, Demolition Block TNT 1-Pound	4 charges per Team
M039 Charge, Demolition Cratering 40-Poun	4 charges per Team
M130 Cap, Blasting Electric M6	6 blasting caps per Team
M131 Cap, Blasting Non-Electric M7	6 blasting caps per Team
M327 Coupling Base, Firing Device with Pr	6 primers per Team
M421 Charge, Demolition Shaped M3 Series	4 charges per Team
M456 Cord, Detonating PETN Type I Class E	250 FT per Team
M591 Dynamite, Military M1	6 charges per Team
M670 Fuse, Blasting Time M700	125 FT per Team
M757 Charge, Assembly Demolition M183 Com	2 cases per Team
ML03 Firing Device, Demolition Multi-Purp	4 primers per Team
MN08 Igniter, Time Blasting Fuse with Sho	6 igniters per Team
MN14 Firing Device, Dual Mode MK54	4 detonators per Team
MN52 MK154 Mod 0	10 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, 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:

1310-ADMN-2002	1310-ADMN-2006	1310-ADMN-2007
1310-ADMN-2010	1310-HEOP-2001	1310-MANT-2002
1345-ADMN-2002	1345-HEOP-2002	1345-HEOP-2003
1345-MANT-2001	1349-ADMN-2002	1349-ADMN-2006
1349-ADMN-2007	1349-ADMN-2010	1349-HEOP-2001
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
1345-HEOP-1003	1345-HEOP-2003	1345-HEOP-2008
1345-HEOP-2009	1345-HEOP-2011	1345-MANT-2001

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:

1310-ADMN-2002	1310-ADMN-2006	1310-ADMN-2009
1310-ADMN-2010	1310-HEOP-2001	1310-MANT-2002
1345-ADMN-1002	1345-HEOP-1003	1345-HEOP-1004
1345-HEOP-1005	1345-HEOP-1006	1345-HEOP-1007
1345-HEOP-2004	1345-HEOP-2005	1345-HEOP-2006
1345-HEOP-2008	1345-HEOP-2009	1345-MANT-1001
1349-ADMN-2002	1349-ADMN-2006	1349-ADMN-2009
1349-ADMN-2010	1349-HEOP-2001	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

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-ADMN-1002	1345-ADMN-2002	1345-ADMN-2003
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
4. TM 11275-15/4 Tactical Engineer Equipment Licensing Manual
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-HEOP-2001	1310-HORZ-2001	1310-HORZ-2002
1310-HORZ-2003	1310-MANT-2002	1345-HEOP-1007
1345-HEOP-2008	1349-HORZ-2002	1349-HORZ-2003
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

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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.
4. Maintain organic tactical engineer equipment.
5. Manage maintenance programs.
6. Submit required reports.

RELATED EVENTS:

1310-ADMN-2002	1310-ADMN-2003	1310-ADMN-2004
1310-ADMN-2005	1310-ADMN-2008	1310-MANT-2001
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-2001	1316-XENG-2002	1316-XENG-2003
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

1345-MANT-2001	1345-MANT-2002	1349-ADMN-2001
1349-ADMN-2002	1349-ADMN-2003	1349-ADMN-2004
1349-ADMN-2008	1349-MANT-2001	1349-MANT-2002
1371-MANT-1001	1371-MANT-2002	

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.
4. Conduct Limited Technical Inspection (LTI).
5. Repair equipment as required.
6. Recover and evacuate as required.
7. Submit required reports.

RELATED EVENTS:

1310-ADMN-2002	1310-ADMN-2004	1310-MANT-2001
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-ADMN-2002	1349-ADMN-2009	1349-MANT-2001
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
2. GCSS-MC Guide Global Combat Support System-Marine Corps Guide
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-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, 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

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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/PERSONNEL: 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
1361-XENG-2001	1361-XENG-2002	1371-PLAN-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

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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-MOBL-1002	1302-MOBL-1003
1302-MOBL-1009	1302-RECN-1001	1371-MOBL-1002
1371-MOBL-1003	1371-MOBL-2018	1371-MOBL-2020
1371-MOBL-2021	1371-MOBL-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:

ORDNANCE:

DODIC	Quantity

M032 Charge, Demolition Block TNT 1-Pound	20 charges per Team
M039 Charge, Demolition Cratering 40-Poun	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/PERSONNEL: 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

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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/revetments 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:

1302-SURV-1002	1310-ADMN-2004	1310-ADMN-2009
1310-ADMN-2010	1310-HEOP-2001	1310-HORZ-2001
1310-HORZ-2002	1310-HORZ-2003	1310-MANT-2002
1316-ADMN-2001	1316-ADMN-2002	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	1345-MANT-2001
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. 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:

1302-SURV-1001	1310-ADMN-2004	1310-ADMN-2009
1310-ADMN-2010	1310-HEOP-2001	1310-MANT-2002
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
1310-ADMN-2010	1310-HEOP-2001	1310-HORZ-2003
1310-MANT-2002	1316-ADMN-2001	1316-ADMN-2002
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
1345-MANT-2001	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 3-17.5 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:

1302-SURV-1001	1310-ADMN-2004	1310-ADMN-2009
1310-ADMN-2010	1310-HEOP-2001	1310-MANT-2002
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
1345-HEOP-2012	1345-MANT-1001	1345-MANT-2001
1349-ADMN-2004	1349-ADMN-2009	1349-ADMN-2010
1349-HEOP-2001	1349-MANT-2002	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 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 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 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-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
1302-SURV-1003	1310-HEOP-2001	1310-HORZ-2001
1310-HORZ-2002	1310-HORZ-2003	1310-MANT-2002
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
1345-MANT-1001	1345-MANT-2001	1349-HEOP-2001
1349-HORZ-2001	1349-HORZ-2002	1349-HORZ-2003
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-HORZ-2003	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

ENGR-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:

1141-ADMN-1002	1141-ADMN-1006	1141-MANT-1101
1141-MANT-1224	1141-MANT-2244	1141-XENG-1601
1141-XENG-1624	1141-XENG-1703	1141-XENG-2501
1141-XENG-2521	1141-XENG-2621	1141-XENG-2622
1141-XENG-2623	1141-XENG-2721	1141-XENG-2821

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 Distribution Systems, Power Generation Systems, PPE, MHE, Motor Transport equipment, HazMat Containment Kit.

ENGR-UTIL-3002: Provide floodlight support

SUPPORTED MET(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-XENG-1601
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:
1. 29 CFR 1910.269 Chapter 29, Code of Federal Regulations, Part Number 1910 (Occupational Safety and Health Standards), Standard Number 269 - Electrical Power Generation, Transmission, and Distribution
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

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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):

MCT 5.3.3.3 MCT 6.3.3

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-ADMN-1006	1171-ADMN-1007	1171-ADMN-1008
1171-ADMN-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, POLs.

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:

1171-ADMN-1006	1171-ADMN-1007	1171-ADMN-1008
1171-ADMN-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. 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.

ENGR-VERT-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
1310-ADMN-2002	1310-ADMN-2004	1310-ADMN-2009
1310-ADMN-2010	1310-HEOP-2001	1310-MANT-2002
1345-HEOP-1004	1345-HEOP-1005	1345-HEOP-1006
1345-MANT-1001	1345-MANT-2001	1349-ADMN-2004
1349-ADMN-2009	1349-ADMN-2010	1349-HEOP-2001
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. 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:

DODIC	Quantity
A064 Cartridge, 5.56mm 4 Ball M855/1 Trac	354 rounds per Team
A131 Cartridge, 7.62mm 4 Ball M80/1 Trace	1284 rounds per Team
A135 Cartridge, 7.62mm Dummy M63	12 rounds per Team

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:

DODIC	Quantity
A560 Cartridge, Caliber .50 Dummy M2	20 rounds per Team
A576 Cartridge, Caliber .50 4 API M8/1 AP	1045 rounds per Team
B472 Cartridge, 40mm Dummy M922	20 rounds per Team
B542 Cartridge, 40mm HEDP M430/M430A1 Lin	337 rounds per Team
BA21 Cartridge, 40mm Practice (Day/Night)	32 rounds per Team

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-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:

DODIC	Quantity
B546 Cartridge, 40mm HEDP M433	10 grenades per Marine
BA35 Cartridge, 40mm Practice (Day/Night)	10 grenades per weapon

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.
9. Document training.
10. Report completion of training.
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

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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.
7. Report Commander's Critical Information Requirements.
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:
5702-SUS-2001 5711-EQP-2001 5711-SNS-2001
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

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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:

0603-PLAN-2102	0620-DSGN-2201	0620-DSGN-2203
0621-INST-2401	0621-MNGT-2701	0621-OPER-1501
0621-OPER-2501	0622-OPER-1502	0629-MNGT-2701
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. 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:

3381-ADMN-2005	3381-CTQA-2201	3381-CTQA-2202

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

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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
3. GCSS-MC Procedural Notices GCSS-MC Handbook
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.
9. Supervise maintenance actions.
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
2841-MAIN-2002	2841-MAIN-2003	2841-MAIN-2004
2841-OPS-2001	28XX-MAIN-2037	28XX-PERS-2001

REFERENCES:
1. Applicable technical references
2. GCSS-MC Aid Global Combat Support System-Marine Corps Job Aid
3. GCSS-MC Procedural Notices GCSS-MC Handbook
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.
7. Provide assistance in complex maintenance tasks.
8. Administer quality control program.
9. Supervise maintenance actions.
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
2847-MAIN-2002	2847-MAIN-2003	2847-MAIN-2004
2847-OPS-2001	28XX-MAIN-2037	28XX-PERS-2001

REFERENCES:
1. Applicable technical references
2. GCSS-MC Aid Global Combat Support System-Marine Corps Job Aid
3. GCSS-MC Procedural Notices GCSS-MC Handbook
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.
9. Supervise maintenance actions.
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
2847-MAIN-2007	2847-MAIN-2008	2847-OPS-2002
28XX-MAIN-2012	28XX-MAIN-2037	28XX-PERS-2001

REFERENCES:
1. Applicable technical references
2. GCSS-MC Aid Global Combat Support System-Marine Corps Job Aid
3. GCSS-MC Procedural Notices GCSS-MC Handbook
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.
3. Maintain accountability of casualty and their gear.
4. Reassess casualty as needed.
5. Document treatment as necessary.
6. Prepare casualty for evacuation.

RELATED EVENTS:

8404-HSS-2002	8404-HSS-2003	8404-MED-2011
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-2001	8404-HSS-2002	8404-HSS-2003
8404-HSS-2004	8404-HSS-2005	8404-HSS-2101
8404-HSS-2104	8404-HSS-2105	8404-MED-2001
8404-MED-2002	8404-MED-2003	8404-MED-2004
8404-MED-2005	8404-MED-2006	8404-MED-2007
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.
6. Evacuate casualty.

RELATED EVENTS:

8404-HSS-2002	8404-HSS-2003	8404-HSS-2004
8404-MED-2001	8404-MED-2002	8404-MED-2003
8404-MED-2004	8404-MED-2005	8404-MED-2006
8404-MED-2007	8404-MED-2008	8404-MED-2009
8404-MED-2010	8404-MED-2011	8404-MED-2012
8404-MED-2017	FMSO-HSS-2105	

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-2001	3526-MAIN-2002	3526-MAIN-2003
3526-MAIN-2004	3526-MAIN-2005	3526-MAIN-2006
3526-MAIN-2007	3526-MAIN-2008	3526-MAIN-2009
3526-MAIN-2010	3526-MAIN-2011	3526-MAIN-2012
3526-MAIN-2013	3526-MAIN-2014	3526-MAIN-2015
3526-MAIN-2016	3526-MAIN-2017	3526-MAIN-2018
3526-MAIN-2019	3526-MAIN-2020	3526-MAIN-2021
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. AIETM 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
7. MCO P4790.1_ Marine Corps Integrated Maintenance Management System (MIMMS) Introduction Manual
8. MCO P4790.2_ MIMMS Field Procedures Manual
9. NAVMC 3500.39_ Motor Transport Training and Readiness 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.
10. Perform coupling procedures.
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-OI/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-OI/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.

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APPENDIX A

ACRONYMS AND ABBREVIATIONS

ABGD	Air Base Ground Defense
ABMP	Air Base Master Plan
ACE	Aviation Combat Element
ADR	Airfield Damage Repair
AGS	Aviation Ground Support
AGSOC	Aviation Ground Support Operations Center
AO	Area of Operations
AOPS	Airfield Operations
ARFF	Aircraft Rescue and Fire Fighting
ASP	Ammunition Supply Point
BDOC	Base Defense Operations Center
BRAAT	Base Recovery After Attack
CA	Contamination Avoidance
CAEMS	Computer-Aided Embarkation Management System
CAS	Close Air Support
CASEVAC	Casualty Evacuation
CBR	California Bearing Ratio
CBRN	Chemical, Biological, Radiological, and Nuclear
CBRNWRS	CBRN Warning and Reporting System
CC NET	Crater Crew Network
CCIR	Commander’s Critical Information Requirements
CCDR	Combatant Commander
CCSD	Command Communications Service Designator
CGIP	Commanding Generals Inspection Program
CMC	Commandant of the Marine Corps
CMOB	Countermobility
CMR	Consolidated Memorandum Receipt
CO	Commanding Officer
COCOM	Combatant Commander
COMM	Communications
COMSEC	Communications Security
COP	Common Operational Picture
CSS	Combat Service Support
CSSOC	Combat Service Support Operations Center
DART	Damage Assessment Response Team
DASC	Direct Air Support Center
DAT	Damage Assessment Team
DART	Damage Assessment and Response Team
DEMO	Demolitions
DTD	Detailed Troop Decontamination
DoD	Department of Defense
DRRS	Defense Readiness Reporting System
EAF	Expeditionary Airfield
ECP	Entry Control Point
ECU	Environmental Control Unit
ENGR	Engineer

EOD . . . . . Explosive Ordnance Disposal
EoIP . . . . . Everything over Internet Protocol
EPDS . . . . . Emergency Personnel Decontamination Station
ERO . . . . . Equipment Repair Order
ESB . . . . . Engineer Support Battalion
FARP . . . . . Forward Arming and Refueling Point
FIE . . . . . Fly-In Echelon
FFSS . . . . . Field Food Service System
FLIP . . . . . Flight Information Publication
FLOLS . . . . . Fresnel Lens Optical Landing System
FML . . . . . Field Marker Lights
FOB . . . . . Forward Operating Base
FOD . . . . . Foreign Object Damage
FOE . . . . . Follow-On Echelon
FOOD . . . . . Food Services
FPCON . . . . . Force Protection Conditions
FRP . . . . . Fiberglass Reinforced Polyester
FUEL . . . . . Bulk Fuel
GCE . . . . . Ground Combat Element
GERS . . . . . Ground Expedient Refueling System
HERS . . . . . Helicopter Expeditionary Refueling System
HF . . . . . High Frequency
HLZ . . . . . Helicopter Landing Zone
HN . . . . . Host Nation
HQCO . . . . . Headquarters & Service Company
HQMC . . . . . Headquarters, Marine Corps
IAW . . . . . In Accordance With
IDC . . . . . Independent Duty Corpsman
ILS . . . . . Instrument Landing System
IM . . . . . Information Management
IMA . . . . . Intermediate Maintenance Activity
IND . . . . . Improvised Nuclear Device
IOM . . . . . Install Operate Maintain
IPE . . . . . Individual Protective Equipment
IR . . . . . Infrared
ISDN . . . . . Integrated Services Digital Network
JFC . . . . . Joint Force Commander
JOPES . . . . . Joint Operation Planning and Execution System
JP . . . . . Joint Publication
JRA . . . . . Joint Rear Area
JTF . . . . . Joint Task Force
LAAD . . . . . Low Altitude Air Defense
LAN . . . . . Local Area Network
LCE . . . . . Logistics Combat Element
LCN . . . . . Load Classification Number
LIC . . . . . Licensing
LTI . . . . . Limited Technical Inspection
LZ . . . . . Landing Zone
MACG . . . . . Marine Air Control Group
MAG . . . . . Marine Aircraft Group
MAGTF . . . . . Marine Air-Ground Task Force
MALS . . . . . Marine Aviation Logistics Squadron
MANT . . . . . Maintenance
MARDIV . . . . . Marine Division

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
MCPP . . . . . 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 . . . . . Medical Review Officer
MSR . . . . . 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
NAVAIR . . . . . 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
OccFld . . . . . 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
TAFDS . . . . . 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

VLA . . . . . Visual Landing Aids
XENG . . . . . General Engineering

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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.

M

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.

O

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.

P

Prerequisite Event. Prerequisites are the academic training and/or T&R events that must be completed prior to attempting the event.

R

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.

S

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.

T

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.

U

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.

W

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.

MWSS T&R MANUAL

APPENDIX C

REFERENCES

1. The references in this appendix are required to train the collective events.

PUBLICATION ID	TITLE
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)
29 CFR 1910.269	Chapter 29, Code of Federal Regulations, Part Number 1910 (Occupational Safety and Health Standards), Standard Number 269 - Electrical Power Generation, Transmission, and Distribution
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
40 CFR 82	Chapter 40, Code of Federal Regulations, Part Number 82 (Protection of Stratospheric Ozone)
42 USC 85 VI 7671	Title 42, United States Code, Chapter 85, Subchapter VI, Section 7671 (Ozone Protection)
5-446	Military Non-Standard Fixed Bridge
62 FR 6621	Military Munitions Rule (MR)
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	Applicable Technical References
Applicable	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	
CFR 49	Code of Federal Regulations - Hazardous Materials
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

PUBLICATION ID	TITLE
DoDI 6055.1	DoD Safety and Occupational Health (SOH) Program
	Dust Abatement Handbook
E	
EKMS-1 (series)	EKMS Policy and Procedures for Navy EKMS Tiers 2 & 3
EMC	Electric Motor Controls by American Technical Publishers, Inc.
F	
FEDLOG	Federal Logistic Data
FM 10-52	Water Supply in Theaters of Operation
FM 10-52-1	Water Supply Point Equipment and Operations
FM 10-67-2	Petroleum Laboratory Testing and Operations
FM 10-68	Aircraft Refueling
FM 10-69	Petroleum Supply Point Equipment and Operations
FM 21-60	Visual Signals
FM 3-11.4	Multiservice tactics, techniques, and procedures for nuclear, biological, and chemical (NBC) protection
FM 3-21.75	The Warrior Ethos and Soldier Combat Skills
FM 3-22.31	40-mm Grenade Launcher, M203
FM 3-22.65	Browning Machine Gun, Caliber .50 HB, M2
FM 3-22.68	Light and Medium machineguns
FM 5-100	Engineers in Combat Operations
FM 5-424	Theater of Operations Electrical Systems
FM 55-30	Army Motor Transport Units and Operations
FM 8-10-1	Tactics, Techniques, and Procedures for the Medical Company
G	
GCSS-MC Aid	Global Combat Support System-Marine Corps Job Aid
GCSS-MC Procedural Notices	GCSS-MC Handbook
GTA 05-07-013	Bridge Classification Card (2006)
GTA 05-07-013	Rapid Field Classification Booklet
GTA 5-2-5	Engineer Reconnaissance
GTA 5-7-6	Bridge Design Card
I	
IFSTA 36538	International Fire Service Training Association (IFSTA) 36538, Essentials of Fire Fighting and Fire Department Operations
J	
JP 3-10	Joint Security Operations in Theater
JP 3-10.1	Joint Tactics, Techniques, and Procedures (JTTP) for Base Defense
JP 3-15	Barriers, Obstacles, and Mine Warfare for Joint Operations
JP 3-34	Joint Engineer Operations
JP 3-36	Detainee Operations
JP 3-40	Combating Weapons of Mass Destruction
JP 4-03	Joint Bulk Petroleum and Water Doctrine
JP 6-0	Joint Communications System
L	
Local SOP	Local Standard Operating Procedures
M	

PUBLICATION ID	TITLE
MCBUL 3000	Marine Corps Readiness Reportable Ground Equipment
MCBUL 8011	CLASS V(W) MATERIEL REQUIREMENTS FOR TRAINING, PROGRAMMED TESTING AND SECURITY
MCDP 5	Planning
MCDP 6	Command and Control
MCIP 3-17.01	Combined Arms Improvised Explosive Device Defeat Operations
MCO 10110.14M	Marine Corps Food Service and Subsistence Program
MCO 11240.66_	Standard Licensing Policy for Operators of Military Motor Vehicles
MCO 1510.101	Individual Training Standards System for Marine Corps Special Skills, Vol. II
MCO 1553.3_	Unit Training Management (UTM) Program
MCO 3000.11_	Ground Equipment Condition and Supply Materiel Readiness Reporting (MRR) Policy
MCO 3400.3_	Nuclear, Biological, and Chemical (NBC) Defense Training
MCO 3440.7A	Marine Corps Support to Civil Authorities
MCO 3461.1	EPW, Retain, CI, and other Detainees
MCO 3500.27_	Operational Risk Management (ORM)
MCO 3501.17	MARINE CORPS COMBAT READINESS EVALUATION SYSTEM (SHORT TITLE: MCCRES); VOLUME XIII, MARINE WING
MCO 3571.2_	Explosive Ordnance Disposal (EOD) Program
MCO 4610.35	USMC Equipment Characteristics File
MCO 4733.1_	Marine Corps Test, Measurement, and Diagnostics Equipment (TMDE) Calibration and Maintenance Program (CAMP)
MCO 4790.18_	Corrosion Prevention and Control (CPAC) Program
MCO 5040.6_	Marine Corps Readiness Inspections and Assessments
MCO 5090.1	Chlorofluorocarbons (CFC's) and Halons
MCO 5100.29_	Marine Corps Safety Program
MCO 5311.1_	Total Force Structure Process (TFSP)
MCO 5530.15	U.S. Marine Corps Interior Guard Manual
MCO 8020.1_	Handling, Transportation, Storage, Reclassification and Disposal of Class V(W) Material
MCO 8023.3B	Personnel Qualification and Certification Program for Class V Ammunition and Explosives
MCO 8027.1D	Interservice Responsibilities for Explosive Ordnance Disposal
MCO P10110.34M	U.S. Marine Corps Food Service and Subsistence Program
MCO P11000.11	Marine Corps Fire Protection and Emergency Services Program
MCO P11262.2	Inspection, Testing, and Certification of Tactical Ground Load Lifting Equipment
MCO P4790.1	Marine Corps Integrated Maintenance Management System (MIMMS) Manual
MCO P4790.2_	MIMMS Field Procedures Manual
MCO P5090.2_	Environmental Compliance and Protection Manual
MCRP 2-3A	Intelligence Preparation of the Battlefield/Battlespace

PUBLICATION ID	TITLE
MCRP 3-0A	Unit Training Management Guide
MCRP 3-0B	How to Conduct Training
MCRP 3-0C	Operational Training Ranges Required Capabilities
MCRP 3-17.1B	Military Non-Standard Fixed Bridging
MCRP 3-17.2	Multiservice Procedures for Explosive Ordnance Disposal (NTTP) in a Joint Environment
MCRP 3-17.2D	Explosive Hazard Operations
MCRP 3-17.7A	Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Road Design
MCRP 3-17.7B	Planning and Design of Roads, Airfields, and Heliports in the Theater of Operations - Airfield and Heliport Design
MCRP 3-17.7C	Carpentry
MCRP 3-17.7D	Concrete and Masonry
MCRP 3-17.7E	Plumbing, Pipe Fitting, and Sewerage
MCRP 3-17.7F	Project Management
MCRP 3-17.7I	Earthmoving Operations
MCRP 3-17.7K	Theater of Operations Electrical Systems
MCRP 3-17.7L	Explosives and Demolitions
MCRP 3-17A	Engineer Field Data
MCRP 3-17B	Engineer Forms and Reports
MCRP 3-37.2A	MTTP for Chemical, Biological, Radiological and Nuclear Contamination Avoidance
MCRP 3-37.2C	MTTP for Chemical, Biological, Radiological, and Nuclear Consequence Management Operations
MCRP 3-37B	MTTP for CBRN Aspects of Command and Control
MCRP 3-41.1A	MAGTF Rear Area Security
MCRP 4-11.1D	Field Hygiene and Sanitation
MCRP 4-11.3E	Multi-service Helicopter Sling Load Vol 1&2
MCRP 4-11.3F	Convoy Operations Handbook
MCRP 4-11.3H	Multi-service Tactics, Techniques, and Procedures for Tactical Convoy Operations
MCRP 4-11.4A	Recovery and Battle Damage Assessment and Repair
MCRP 4-11.8A	Marine Corps Field Feeding Program
MCRP 4-11B	Environmental Considerations
MCWP 2-15.3	Ground Reconnaissance Operations (FMFM 2-2)
MCWP 3-1	Ground Combat Operations
MCWP 3-11.1	Marine Rifle Company/ Platoon
MCWP 3-13.2	MINE WARFARE
MCWP 3-15.1	Machine Guns and Machine Gun Gunnery
MCWP 3-17	Engineering Operations
MCWP 3-17.1	Combined Arms Gap-Crossing Operations
MCWP 3-17.2	MAGTF Explosive Ordnance Disposal
MCWP 3-17.3	Breaching Operations
MCWP 3-17.3	MAGTF Breaching Operations
MCWP 3-17.4	Engineer Reconnaissance
MCWP 3-17.5	Combined Arms Obstacle Integration
MCWP 3-17.5	Combined Arms Countermobility Operations
MCWP 3-17.6	Survivability
MCWP 3-17.7	General Engineering
MCWP 3-17.8	Combined Arms Mobility Operations

PUBLICATION ID	TITLE
MCWP 3-21.1	Aviation Ground Support
MCWP 3-31.2	Mine Warfare
MCWP 3-31.4	Marine Expeditionary Units (Special Operations Capable)
MCWP 3-33	Military Operations Other Than War (MOOTW)
MCWP 3-35.3	Military Operations on Urbanized Terrain (MOUT)
MCWP 3-35.5	Jungle Operations
MCWP 3-35.6	Desert Operations
MCWP 3-37	MAGTF Nuclear, Biological, and Chemical Defense Operations
MCWP 3-37.1	Multiservice Doctrine for CBRN Operations
MCWP 3-37.2	MTTP for NBC Protection
MCWP 3-37.3	MTTP for CBRN Decontamination
MCWP 3-37.4	MTTP for NBC Reconnaissance
MCWP 3-37.4	MTTP for CBRN Reconnaissance and Surveillance
MCWP 3-37.5	MTTP for Installation CBRN Defense
MCWP 3-40.1	MAGTF Command and Control
MCWP 3-40.3	MAGTF Communications System
MCWP 3-41.1	Rear Area Operations
MCWP 4-1	Logistics Operations
MCWP 4-11	Tactical-Level Logistics
MCWP 4-11.1	Health Service Support Operations
MCWP 4-11.2	Patient Movement
MCWP 4-11.3	Transportation Operations
MCWP 4-11.4	Maintenance Operations
MCWP 4-11.6	Petroleum and Water Logistics Operations
MCWP 4-25-5	Bulk Liquids Operations
MCWP 5-1	Marine Corps Planning Process (MCPP)
MIL HDBK 200	Quality Surveillance Handbook for Fuels, Lubricants, and Related Products
N	
NAVAIR 00-80R-14	NATOPS U.S. Navy Aircraft Emergency Rescue Information
NAVAIR 00-80R-14-1	NATOPS U.S. Navy Aircraft Emergency Rescue Information Manual
NAVAIR 00-80R-20	NATOPS U.S. Navy Aircraft Crash & Salvage Operations Manual (Ashore)
NAVAIR 00-80T-109	Aircraft Refueling NATOPS Manual
NAVAIR 00-80T-115	Expeditionary Airfields Forward Operating Bases NATOPS Manual
NAVAIR 00-80T-121	Chemical and Biological Defense NATOPS Manual
NAVAIR 06-5-502	Aircraft Refueling For Shore Activities
NAVAIR 51-40ABA-14	Portable Shore Based Fresnel Lens OLS MK 8 MOD 0 & MOD 1
NAVAIR 51-40ABA-18	Lighting & Marking for EAF Bare-Base Airfields
NAVAIR 51-40ABA-7	Lighting & Marking for EAF
NAVAIR 51-40ACB-1	Airfield Emergency Portable Marker Light
NAVAIR 51-50ABA-16_	Minimum Operating Strip Lighting System (MOSLS)
NAVAIR 51-5-31_	E28 Emergency Runway Arresting Gear
NAVAIR 51-5FAA-1_	M31 Marine Corps Expeditionary Arresting Gear System
NAVAIR 51-5FAA-2_	M31 Periodic Maintenance Requirements

PUBLICATION ID	TITLE
NAVAIR 51-5FAA-3	M31 Preoperational Checklist
NAVAIR 51-60-A-1	Installation, Maintenance, Repackaging and Illustrated Parts Breakdown, AM-2 Airfield Mat and Accessories
NAVAIR 51-60A-1	AM2 Airfield Mat and Accessories
NAVAIRINST 13800.12B	Certification of Expeditionary Airfield AM-2 Mat Installations, Aircraft Recovery Equipment, Visual/Optical Landing Aids, and Marking/Lighting Systems
NAVAIRINST 13800.13B	Certification of Shore-Based Aircraft Recovery Equipment and Visual/ Optical Landing Aids Systems
NAVAL MESSAGES	TAN, SAAN, SAO, DA
NWP 55-3-AH1	Naval Warfare Publication, AH-1 Tactical Manual
NAVEDTRA 10696	Engineer Aid 3
NAVMC 2691A	Interior Guard
NAVMC 3500.12_	Marine Corps Engineer and Utilities Training and Readiness Manual
NAVMC 3500.39_	Motor Transport Training and Readiness Manual
NAVMC 3500.44	Infantry Training and Readiness Manual
NAVMC 3500.56_	Communications (Comm) Training and Readiness (T&R) Manual
NAVMC 3500.84	Health Services Training and Readiness Manual
NAVMC DIR 5100.8_	Marine Corps Occupational Safety and Health (OSH) Program Manual
NAVMED P-5010-1	Manual of Naval Preventive Medicine, Chapter 1, Food Sanitation
NAVMED P-5010-10	Manual of Naval Preventive Medicine, Chapter 10, Sanitary Control and Surveillance of Field Water Supplies
NAVMED P-5010-5	Manual of Naval Preventive Medicine Chapter 5, Water Supply Ashore
NAVMED P-5010-9	Manual of Naval Preventive Medicine, Chapter 9, Preventive Medicine for Ground Forces
NAVSEA OP 5 Vol 1	Ammunition and Explosives/Ashore Safety Regulations of Handling, Storage, Production, Renovation and Shipping
NAVSEA OP 5 VOL 2	Ammunition & Explosives Ashore Safety Regulation
NAVSEA SW020-AC-SAF-010	Transportation and Storage Data of Ammunition, Explosives, and Related Hazardous Materials
NAVSEA SW060-AA-MMA-010 Volume 1	Technical Manual Demolition Materials
NAVSUP P-421	Navy Food Service SOP
NEC (NFPA 70)	National Electrical Code - by National Fire Protection Association
NFPA 70 - NEC 2008	National Fire Protection Association (NFPA) National Electrical Code (NEC) - 2008 Edition
NRP	National Response Plan
O	
OP 2239	Motor Vehicle Driver's Handbook, Ammunition, Explosives and related Hazardous Materials

PUBLICATION ID	TITLE
Op Order	Annex C Appendix 13
OPNAVINST 4790.2	The Naval Aviation Maintenance Program (NAMP)
ORDERS AND DIRECTIVES	MARINE CORPS ORDERS AND DIRECTIVES WEBSITE
S	
SL 1-2/3	Index of Authorized Publications in Stock
SL-4	Repair, Maintenance, and Management Lists
SOP	Unit
T	
TC 21-305	Manual for the Wheeled Vehicle Operator
TC 21-305-20	Manual for the Wheeled Vehicle Operator
TC 3-34.489	The Soldier and the Environment
TM 04486B-15	Drum, Collapsible Liquid Fuel 500 GAL
TM 07700B-10	Operator's Manual, 40mm Grenade Launcher, M203 (Ch 1&2)
TM 08089B-OI/1A	Operators Manual for Semitrailer, Tank: 5,000 Gallon Fuel Dispensing, Under/Overwing Aircraft (MK970)
TM 08670A-10/1A	Operator's Manual, Machinegun, 7.62mm, M240
TM 09199B-OR	Sweeper, Rotary, Vehicle Mounting
TM 09211A-14	Tray Ration Heating System TM
TM 10629-10C	Operator Manual for the Truck, Cargo, 7-Ton
TM 10629A-OD	Operation Manual with Components List for Truck, Cargo, 7-Ton
TM 10629-CD	Interactive Electronic Technical Manual (IETM) for Re-Supply Vehicle
TM 10757A-12	Food Transporter Parts List & Instructions
TM 10-8340-211-13	Operator, Unit and Direct Support Maintenance Manual for the Tent, General Purpose
TM 11165A-OR	System Operational Manual for Truck, Tractor, 7-Ton, W/O Winch, MK31
TM 11240-14/2	Logistic Consideration for Motor Transport Convoy Operations
TM 11240-15/3_	Motor Vehicle Licensing Official's Manual
TM 11240-OD	Principal Technical Characteristics of U.S. Marine Corps Motor Transportation Equipment
TM 11275-15/3_	Principal Technical Characteristics of U.S. Marine Corps Engineer Equipment
TM 11275-15/4	Tactical Engineer Equipment Licensing Manual
TM 12359A-OD	Principal Technical Characteristics of Expeditionary Power Systems Equipment
TM 3835-OI/1A	Marine Corps Tactical Fuel Systems
TM 4-43.31	Petroleum Laboratory Testing and Operations
TM 4700-15/1_	Ground Equipment Record Procedures
TM 5-1080-200-13&P	Operators' Organizational and Direct Support Manual for Lightweight Camouflage Screen Systems
TM 5-232	Elements of Construction Surveying
TM 5-2330-356-14&P	Semi-Trailer Tank, 5000
TM 5-4330-217-12	Operator and Organizational Maintenance Manual, Filter Separator, Liquid 100 GPM, Frame Mounted
TM 5-441	Geodetic and Topographic Surveying
TM 5-581B	Construction Drafting
TM 5-6630-218-10	Aviation Fuel, Contaminant, Test Kit

PUBLICATION ID	TITLE
TM 5-704	Construction Print Reading in the Field
TM 9-2320-260-10	Operator Manual for Trk 5 Ton, 6x6 M809 Series
TM 9-2320-272-10	Operator Manual for M939 Series Vehicle
TM 9-2320-280-10	Operator Manual for the 1 1/2 Ton M998
TM 9-2330-202-14&P	Trailer, Cargo 3/4 Ton, 2 Wheel
TM 9-2330-247-14&P	M353 Chassis, Trailer, 3 1/2 Ton, 2-Wheel
TM 9-2330-267-14&P	M149A/A1/A2 Trailer Tank Water, 1 1/2 Ton, 2-Wheel
TM 9406-15_	Grounding Procedures for Electromagnetic Interference Control and Safety
TM 9999-15/1_	Electro-static Discharge (ESD) Awareness
TM-10	Applicable Manuals
U	
UFC 3-270-07	Airfield Damage Repair
ULSS 001302-15	User's Logistics Support Summary for Field Food Service System (FFSS)
UNIT SOP	Unit's Standing Operating Procedures
UPC (IAPMO/ANSI)	Uniform Plumbing Code - by International Association of Plumbing and Mechanical Officials/American National Standard Institute

MWSS T&R MANUAL

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)

DODIC	NOMENCLATURE
A064	Cartridge, 5.56mm 4 Ball M855/1 Tracer M856 Linked
A131	Cartridge, 7.62mm 4 Ball M80/1 Tracer M62 Linked
A135	Cartridge, 7.62mm Dummy M63
A560	Cartridge, Cal .50 Dummy M2
A576	Cartridge, Cal .50 4 API M8/1 API-T M20 Linked
B472	Cartridge, 40mm Dummy M922
B542	Cartridge, 40mm HEDP M430/M430A1 Linked
B546	Cartridge, 40mm HEDP M433
BA21	Cartridge, 40mm Practice (Day/Night) MK281 Mod 1 Linked
BA35	Cartridge, 40mm Practice (Day/Night) XM1110
J007	Mine, Antipersonnel M18A1 with Non-Electric Mini Shock Tube
L495	Flare, Surface Trip M49/A1 Series
L598	Simulator, Explosive Booby Trap Flash M117
M023	Charge, Demo Block M112 1-1/4 pound C-4
M030	Charge, Demo Block TNT 1/4-Pound
M032	Charge, Demo Block TNT 1-Pound
M039	Charge, Demo Cratering 40-Pound
M130	Cap, Blasting Electric M6
M131	Cap, Blasting Non-Electric M7
M327	Coupling Base, Firing Device with Primer
M420	Charge, Demo Shaped M2 Series 15-Pound
M421	Charge, Demo Shaped M3 Series 40-Pound
M456	Cord, Detonating PETN Type I Class E

M591	Dynamite, Military M1
M670	Fuse, Blasting Time M700
M757	Charge, Assembly Demo M183 Comp C-4
ML03	Firing Device, Demo Multi-Purpose M142
MN08	Igniter, Time Blasting Fuse with Shock Tube Capability M81
MN14	Firing Device, Dual Mode MK54
MN52	Detonator, Percussion, Non-Electric MK154 Mod 0
MN79	Mine, Antipersonnel Obstacle Breaching System MK7 Mod 1
MN88	Cap, Blasting, Non-Electric, M21 w/ 500 ft. Mini tube
MN90	Cap, Blasting, Non-Electric, M23 w/ 1000 ft. Mini tube

C002. ENGINEER INDIVIDUAL EVENT CLASS V ALLOCATIONS

MOS	DODIC	EVENT	QTY	SUSTAINMENT INTERVAL	ANNUAL TOTAL	DODIC TOTAL
1302	A011	1302-MOBL-1006	10	SA	20	
1371	A011	1371-MOBL-2013	6	SA	12	
		1371-MOBL-2014	6	SA	12	
		1371-MOBL-2015	10	A	10	
	A011					54
1302	A023	1302-MOBL-1006	8	SA	16	
1371	A023	1371-MOBL-2013	3	SA	6	
		1371-MOBL-2014	3	SA	6	
	A023					28
1302	AA54	1302-MOBL-1006	12	SA	24	
1371	AA54	1371-MOBL-2014	3	SA	6	
		1371-MOBL-2016	6	SA	12	
	AA54					42
1371	AX10	1371-MOBL-1006	3	SA	6	6
1371	AX11	1371-MOBL-1006	6	SA	12	12
1302	AX14	1302-MOBL-1006	12	SA	24	
1371	AX14	1371-DEMO-2002	4	Q	16	
		1371-DEMO-2007	2	SA	4	
		1371-DEMO-2008	2	SA	4	
		1371-DEMO-2009	2	SA	4	
		1371-DEMO-2010	2	SA	4	
		1371-DEMO-2011	2	SA	4	
		1371-DEMO-2012	2	SA	4	
		1371-DEMO-2013	2	SA	4	
		1371-DEMO-2014	2	A	2	
	AX14					70
1371	G940	1371-MOBL-1001	1	Q	4	
		1371-MOBL-1003	1	SA	2	
		1371-CMOB-2003	2	SA	4	
		1371-MOBL-2012	2	SA	4	
	G940					14

1371	G945	1371-MOBL-1001	1	Q	4	
		1371-MOBL-1003	1	SA	2	
		1371-CMOB-2003	2	SA	4	
		1371-MOBL-2012	2	SA	4	
	G945					14
1371	G982	1371-MOBL-1001	1	Q	4	
		1371-MOBL-1003	1	SA	2	
		1371-CMOB-2003	2	SA	4	
		1371-MOBL-2012	2	SA	4	
	G982					14
1371	HX05	1371-MOBL-1006	1	SA	2	
		1371-MOBL-2012	2	SA	4	
	HX05					6
1371	HX07	1371-MOBL-1006	1	SA	2	2
1371	J007	1371-CMOB-1003	1	Q	4	4
1371	J143	1371-MOBL-2010	1	Q	4	
		1371-MOBL-2012	1	SA	2	
	J143					6
1371	K143	1371-CMOB-1003	1	Q	4	4
1371	L312	1371-MOBL-2012	2	SA	4	4
1371	L314	1371-MOBL-2012	2	SA	4	4
1371	L495	1371-CMOB-1002	1	SA	2	
		1371-CMOB-2003	2	SA	4	
	L495					6
1371	L594	1371-CMOB-2003	2	SA	4	4
1371	L598	1371-CMOB-2003	2	SA	4	4
1371	LX21	1371-MOBL-1006	1	SA	2	2
1302	M023	1302-DEMO-1002	1	SA	2	
		1302-DEMO-1003	10	Q	40	
		1302-MOBL-1010	2	SA	4	
1371	M023	1371-CMOB-1002	1	SA	2	
		1371-DEMO-1001	1	Q	4	
		1371-MOBL-1001	1	Q	4	
		1371-MOBL-1003	1	SA	2	
		1371-CMOB-2003	10	SA	20	
		1371-DEMO-2001	10	Q	40	
		1371-DEMO-2002	4	Q	16	
		1371-DEMO-2013	6	SA	12	
		1371-DEMO-2014	4	A	4	
		1371-MOBL-2012	2	SA	4	
		1371-MOBL-2023	2	SA	4	

	M023					158
1302	M028	1302-DEMO-1002	1	SA	2	
1371	M028	1371-MOBL-1001	1	Q	4	
		1371-MOBL-2012	1	SA	2	
	M028					8
1302	M030	1302-DEMO-1002	1	SA	2	
1371	M030	1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	1	Q	4	
	M030					10
1302	M032	1302-DEMO-1002	1	SA	2	
		1302-DEMO-1003	10	Q	40	
1371	M032	1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	1	Q	4	
		1371-DEMO-2001	10	Q	40	
	M032					90
1302	M039	1302-DEMO-1002	1	SA	2	
1371	M039	1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	1	Q	4	
	M039					10
1302	M130	1302-DEMO-1002	3	SA	6	
		1302-DEMO-1003	14	Q	56	
		1302-MOBL-1006	8	SA	16	
1371	M130	1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	4	Q	16	
		1371-MOBL-1001	10	Q	40	
		1371-MOBL-1003	3	SA	6	
		1371-CMOB-1002	1	SA	2	
		1371-DEMO-2001	8	Q	32	
		1371-DEMO-2002	10	Q	40	
		1371-DEMO-2007	1	SA	2	
		1371-DEMO-2008	2	SA	4	
		1371-DEMO-2010	2	SA	4	
		1371-DEMO-2011	2	SA	4	
		1371-DEMO-2012	2	SA	4	
		1371-DEMO-2013	2	SA	4	
		1371-DEMO-2014	2	A	2	
		1371-MOBL-2012	6	SA	12	
	M130					254
1302	M131	1302-DEMO-1002	5	SA	10	
		1302-DEMO-1003	14	Q	56	
		1302-MOBL-1006	6	SA	12	
		1302-MOBL-1010	4	SA	8	
1371	M131	1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	12	Q	48	
		1371-MOBL-1001	10	Q	40	
		1371-MOBL-1003	1	SA	2	

		1371-CMOB-1002	1	SA	2	
		1371-DEMO-2001	8	Q	32	
		1371-DEMO-2002	10	Q	40	
		1371-DEMO-2011	2	SA	4	
		1371-DEMO-2012	2	SA	4	
		1371-DEMO-2013	2	SA	4	
		1371-DEMO-2014	2	A	2	
		1371-MOBL-2012	6	SA	12	
		1371-MOBL-2023	4	SA	8	
	M131					288
1371	M327	1371-CMOB-1003	1	Q	4	
		1371-CMOB-2003	4	SA	8	
	M327					12
1302	M420	1302-DEMO-1002	1	SA	2	
1371	M420	1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	1	Q	4	
	M420					10
1302	M421	1302-DEMO-1002	1	SA	2	
1371	M421	1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	1	Q	4	
	M421					10
1302	M456	1302-DEMO-1002	85	SA	170	
		1302-DEMO-1003	500	Q	2000	
		1302-MOBL-1006	200	SA	400	
		1302-MOBL-1010	10	SA	20	
1371	M456	1371-CMOB-1002	50	SA	100	
		1371-CMOB-1003	500	Q	2000	
		1371-DEMO-1001	35	Q	140	
		1371-DEMO-1002	350	Q	1400	
		1371-MOBL-1001	300	Q	1200	
		1371-MOBL-1003	350	SA	700	
		1371-CMOB-2003	350	SA	700	
		1371-DEMO-2001	250	Q	1000	
		1371-DEMO-2007	5	SA	10	
		1371-DEMO-2008	5	SA	10	
		1371-DEMO-2009	12	SA	24	
		1371-DEMO-2010	96	SA	192	
		1371-DEMO-2011	18	SA	36	
		1371-DEMO-2012	33	SA	66	
		1371-DEMO-2013	32	SA	64	
		1371-DEMO-2014	15	A	15	
		1371-MOBL-2012	1500	SA	3000	
		1371-MOBL-2023	10	SA	20	
	M456					13267
1302	M591	1302-DEMO-1002	2	SA	4	
1371	M591	1371-CMOB-1002	1	SA	2	
		1371-DEMO-1001	2	Q	8	
		1371-DEMO-1002	1	Q	4	
	M591					18

1302	M670	1302-DEMO-1002	40	SA	80	
		1302-DEMO-1003	50	Q	200	
		1302-MOBL-1006	24	SA	48	
		1302-MOBL-1010	500	SA	1000	
1371	M670	1371-CMOB-1002	25	SA	50	
		1371-DEMO-1001	10	Q	40	
		1371-DEMO-1002	350	Q	1400	
		1371-MOBL-1001	200	Q	800	
		1371-MOBL-1003	10	SA	20	
		1371-DEMO-2001	50	Q	200	
		1371-DEMO-2002	50	Q	200	
		1371-DEMO-2011	12	SA	24	
		1371-DEMO-2012	12	SA	24	
		1371-DEMO-2013	12	SA	24	
		1371-DEMO-2014	12	A	12	
		1371-MOBL-2012	500	SA	1000	
		1371-MOBL-2023	500	SA	1000	
	M670					6122
1302	M757	1302-DEMO-1002	1	SA	2	
		1302-DEMO-1003	1	Q	4	
		1302-MOBL-1010	2	SA	4	
1371	M757	1371-CMOB-1003	1	Q	4	
		1371-DEMO-1001	1	Q	4	
		1371-DEMO-1002	1	Q	4	
		1371-MOBL-1001	1	Q	4	
		1371-MOBL-1003	2	SA	4	
		1371-MOBL-2012	1	SA	2	
	M757					32
1371	M766	1371-DEMO-2002	11	Q	44	44
1371	M913	1371-MOBL-2010	1	Q	4	
		1371-MOBL-2012	1	SA	2	
	M913					6
1371	M914	1371-MOBL-2010	1	Q	4	4
1302	M982	1302-DEMO-1002	1	SA	2	
1371	M982	1371-DEMO-2002	1	Q	4	
	M982					6
1302	ML03	1302-DEMO-1003	2	Q	8	
		1302-MOBL-1006	1	SA	2	
1371	ML03	1371-DEMO-1001	2	Q	8	
		1371-CMOB-1003	1	Q	4	
		1371-DEMO-2001	5	Q	20	
		1371-DEMO-2007	1	SA	2	
		1371-DEMO-2008	1	SA	2	
		1371-DEMO-2009	1	SA	2	
		1371-DEMO-2010	1	SA	2	
		1371-DEMO-2011	1	SA	2	

		1371-DEMO-2012	1	SA	2	
		1371-DEMO-2014	1	A	1	
		1371-CMOB-2003	4	SA	8	
	ML03					63
1302	ML47	1302-DEMO-1003	3	Q	12	
1371	ML47	1371-DEMO-1001	6	Q	24	
		1371-MOBL-1001	3	Q	12	
		1371-DEMO-2001	3	Q	12	
		1371-DEMO-2002	2	Q	8	
	ML47					68
1302	MM30	1302-DEMO-1002	4	SA	8	
1371	MM30	1371-DEMO-2011	2	SA	4	
		1371-DEMO-2013	3	SA	6	
	MM30					18
1302	MM44	1302-DEMO-1002	1	SA	2	2
1302	MM45	1302-DEMO-1002	1	SA	2	
1371	MM45	1371-DEMO-2002	1	Q	4	
	MM45					6
1371	MM46	1371-DEMO-2002	1	Q	4	4
1302	MM47	1302-DEMO-1002	1	SA	2	
1371	MM47	1371-DEMO-2002	1	Q	4	
	MM47					6
1302	MM48	1302-DEMO-1002	1	SA	2	
1371	MM48	1371-DEMO-2002	1	Q	4	
	MM48					6
1302	MN08	1302-DEMO-1002	5	SA	10	
		1302-DEMO-1003	10	Q	40	
		1302-MOBL-1006	4	SA	8	
		1302-MOBL-1010	2	SA	4	
1371	MN08	1371-CMOB-1002	1	SA	2	
		1371-DEMO-1001	2	Q	8	
		1371-DEMO-1002	1	Q	4	
		1371-MOBL-1001	12	Q	48	
		1371-MOBL-1003	2	SA	4	
		1371-DEMO-2001	8	Q	32	
		1371-DEMO-2002	6	Q	24	
		1371-DEMO-2011	2	SA	4	
		1371-DEMO-2012	2	SA	4	
		1371-DEMO-2013	2	SA	4	
		1371-DEMO-2014	2	A	2	
		1371-MOBL-2012	8	SA	16	
		1371-MOBL-2023	2	SA	4	
	MN08					218
1302	MN14	1302-MOBL-1006	2	SA	4	
1371	MN14	1371-DEMO-1002	3	Q	12	

		1371-DEMO-2002	1	Q	4	
		1371-MOBL-2012	1	SA	2	
	MN14					22
1302	MN52	1302-DEMO-1002	1	SA	2	
		1302-DEMO-1003	5	Q	20	
		1302-MOBL-1006	6	SA	12	
1371	MN52	1371-DEMO-1001	4	Q	16	
		1371-MOBL-1001	2	Q	8	
		1371-MOBL-1003	4	SA	8	
		1371-CMOB-2003	4	SA	8	
		1371-DEMO-2001	5	Q	20	
		1371-DEMO-2002	4	Q	16	
		1371-DEMO-2007	1	SA	2	
		1371-DEMO-2008	1	SA	2	
		1371-DEMO-2009	1	SA	2	
		1371-DEMO-2010	1	SA	2	
		1371-DEMO-2011	1	SA	2	
		1371-DEMO-2012	1	SA	2	
		1371-DEMO-2013	1	SA	2	
		1371-DEMO-2014	1	A	1	
		1371-MOBL-2012	6	SA	12	
	MN52					137
1371	MN79	1371-MOBL-2011	1	SA	2	2
1302	MN88	1302-DEMO-1003	3	Q	12	
		1302-MOBL-1010	1	SA	2	
1371	MN88	1371-MOBL-1003	3	SA	6	
		1371-DEMO-2001	3	Q	12	
		1371-DEMO-2002	1	Q	4	
		1371-MOBL-2012	2	SA	4	
		1371-MOBL-2023	1	SA	2	
	MN88					42
1302	MN90	1302-MOBL-1010	1	SA	2	
1371	MN90	1371-MOBL-1003	3	SA	6	
		1371-DEMO-2002	1	Q	4	
		1371-MOBL-2023	1	SA	2	
	MN90					14

C003. COURSE OF FIRE ALLOCATIONS FOR CREW SERVED WEAPON SYSTEM SUSTAINMENT/PROFICIENCY (Numbers in parenthesis depict quantities supporting the events pre-qualification/qualification/remediation tasks.)

E0960 - M249		DODIC	
	Course of Fire:	A135	A064
	Load/Operate	12	
	Remedial/Immediate Actions	12	
	Zero SDO (0/20/0)		20
	Table II Multiple Engagement Crs (12/200/22)		234
	Table V Night Vision Device (NVD) (0/60/7)		67

	Zero (ATPIAL) (0/30/3)		33
TOTAL:		12	354
E0989 - M240		DODIC	
	Course of Fire:	A135	A131
	Load/Operate	12	
	Remedial/Immediate Actions	12	
	MDO Field Zero (0/20/20)		40
	Table I Range Card Course (0/168/18)		186
	Table I Basic Course (0/204/11)		215
	Table II Multi Engagement Crs (126/252/27)		405
	Table IV Night Vision Device (NVD) (56/144/16)		216
	Table V Bipod/Tripod Course (36/36/4)		76
	Table VI Bipod Multi Engagement Crs (0/132/15)		147
	Zero (ATPIAL) (0/30/3)		33
	Zero AN/PVS-17C (0/30/3)		33
	Zero AN/PAS-13D (0/30/3)		33
TOTAL:		12	1284
E0984 - M2		DODIC	
	Course of Fire:	A576	A560
	Load		10
	Remedial/Immediate Actions		10
	Zero (0/28/3)	31	
	Table 1 10m Basic Crs (102/102/11)	215	
	Table II M2 Transition Crs (148/252/27)	427	
	Table III Range Card Course (0/168/18)	186	
	Table V Vehicle Mtd Crs (0/168/18)	186	
TOTAL:		1045	20
E0994 - MK-19		DODIC	
	Course of Fire:	B472	B542
	Load	10	
	Remedial/Immediate Actions	10	
	Zero (0/32/4)		36
	Table I MK19 Basic Crs (32/128/14)		174
	Table II MK-19 Range Card Crs (20/64/7)		91
	Table IV MK19 Vehicle Mtd Crs (0/32/4)		36
TOTAL:		20	337

C004. CREW SERVED WEAPON SUSTAINMENT/PROFICIENCY ALLOCATIONS

MARINE WING SUPPORT SQUADRON						
DODIC	**WEAPON**	**EVENT**	**RDS QTY**	**# OF WEAPONS**	**SUSTAINMENT INTERVAL**	**ANNUAL TOTAL**
A064	M249	HQCO-ABGD-3001	354	30	**SA**	21240
A131	M240	HQCO-ABGD-3001	1284	18	**SA**	46224
A135	M240	HQCO-ABGD-3001	12	18	**SA**	432
A560	M2	HQCO-ABGD-3002	20	12	**SA**	480
A576	M2	HQCO-ABGD-3002	1045	12	**SA**	25080
B472	MK-19	HQCO-ABGD-3002	20	12	**SA**	480
B542	MK-19	HQCO-ABGD-3002	337	12	**SA**	8088