

INFANTRY T&R MANUAL

CHAPTER 14

MOS 0341 INDIVIDUAL EVENTS

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CHAPTER 14

MOS 0341 INDIVIDUAL EVENTS

14000. PURPOSE. This chapter details the individual events that pertain to the community. These events are linked to a service-level Mission Essential Tasks (MET). This linkage tailor's individual training for the selected MET. Each individual event provides an event title, along with the conditions events will be performed under, and the standard to which the event must be performed to be successful.

14001. 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 community. This chapter contains the following community codes:

<u>Code</u>	<u>Description</u>
0341	Mortarman

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

<u>Code</u>	<u>Description</u>
60mm	60mm - Company Lightweight Mortar
81mm	81mm - Medium Weight Mortar
FDC	Fire Direction Center
FO	Forward Observer
WPNS	Weapons

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:

<u>Code</u>	<u>Description</u>
1000	Core Skills
2000	Core Plus Skills

14002. 0341 BILLET DESCRIPTIONS/CORE CAPABILITIES

CAREER PROGRESSION PHILOSOPHY. Upon completion of Level 1000 training at the Infantry Mortarman Course, Infantry Training Battalion, School of Infantry, the mortarman will conduct sustainment training on the 60mm light mortar or the 81mm heavy mortar in an Infantry Battalion. Prior to selection to Corporal or upon assuming the duties of forward observer, plotter or squad/section leader, the mortarman should attend Level 2000 training at the Advanced Mortar Course, Advanced Infantry Training Battalion, School of Infantry.

BILLET: Ammunition Man, 60mm Mortar Section, Weapons Platoon. The 60mm Mortar Ammunition Man stands to the right rear of the mortar. He prepares the ammunition and assists the Gunner in shifting and loading the mortar. He swabs the barrel every 10 rounds or after each end of mission. His rank is Private thru Lance Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Mortar Squad Leader.
2. Perform the tasks required of an Ammunition Man in the 60mm Mortar Section of a Weapons Platoon.
3. Performs operator maintenance for and operates an M224 60mm mortar.
4. Emplaces and recovers an M18A1 Claymore mine.
5. Detects and marks a mine.
6. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
7. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
8. Perform self-aid and buddy aid.
9. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
10. Communicate using proper communications procedures with organic wired and wireless communications.
11. Performs fire and movement as an individual and as a member of a mortar squad.
12. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
13. Repels an enemy assault by fire and close combat.

BILLET: Assistant Gunner, 60mm Mortar Section, Weapons Platoon. The 60mm Assistant Gunner assists the Gunner in shifting and loading the mortar. His rank is Lance Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Mortar Squad Leader.
2. Perform the tasks required of an Assistant Gunner in the 60mm Mortar Section of a Weapons Platoon.
3. Performs operator maintenance for and operates an M224 60mm mortar.
4. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
5. Emplaces and recovers an M18A1 Claymore mine.
6. Detects and marks a mine.
7. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
8. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
9. Perform self-aid and buddy aid.
10. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
11. Communicate using proper communications procedures with organic wired and wireless communications.
12. Performs fire and movement as an individual and as a member of a mortar squad.
13. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
14. Repels an enemy assault by fire and close combat.

BILLET: Squad Leader/Gunner, 60mm Mortar Section, Weapons Platoon. The 60mm Mortar Squad Leader/Gunner is located where he can manipulate the sight, elevate the gear handle, and traverse the assembly wheel. He places firing data on the sight and lays the mortar for deflection and elevation. Assisted by the Squad Leader (or Ammunition Man), he makes large deflection shifts by shifting the bipod assembly. His rank is a Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the 60mm Mortar Section Leader.
2. Perform the tasks required of a Squad Leader and a Gunner in the 60mm Mortar Section of a Weapons Platoon.
3. Maintains the condition, care, and economical use of assigned personnel, weapons and equipment.
4. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
5. Performs operator maintenance for and operates an M224 60mm mortar.
6. Operates an M16 plotting board and M19 plotting board.
7. Performs section leader fire commands without a Fire Direction Center utilizing a circular fire table applying the LARS rule for corrections.
8. Emplaces and recovers an M18A1 Claymore mine.
9. Detects and marks a mine.
10. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
11. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
12. Perform self-aid and buddy aid.
13. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
14. Communicate using proper communications procedures with organic wired and wireless communications.
15. Performs operator maintenance for and operates an M998 high-back HMMWV.
16. Controls the fire and movement of his 60mm Mortar Squad.
17. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
19. Repels an enemy assault by fire and close combat.

BILLET: Ammunition Man/Driver, 81mm Mortar Platoon, Weapons Company. The 81mm Mortar second Ammunition Man is normally behind the mortar, maintaining the ammunition for firing, providing local security for the mortar position, filling sandbags, and performing other duties as the Squad Leader directs. He normally places out and retrieves the aiming post. He is also the squad truck driver. When his duties do not require him to be with the vehicle, he is used as an Ammunition Man. His rank is Private thru Lance and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Mortar Squad Leader.
2. Perform the tasks required of a Driver and Ammunition Man in the 81mm Mortar Platoon.
3. Performs operator maintenance for and operates an M252 81mm mortar.
4. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
5. Emplaces and recovers an M18A1 Claymore mine.
6. Detects and marks a mine.

7. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
8. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
9. Perform self-aid and buddy aid.
10. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
11. Communicate using proper communications procedures with organic wired and wireless communications.
12. Performs operator maintenance for, and operates an M998 high-back HMMWV.
13. Performs fire and movement as an individual and as a member of a mortar squad.
14. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
15. Repels an enemy assault by fire and close combat.

BILLET: Ammunition Man, 81mm Mortar Platoon, Weapons Company. The 81mm Mortar first Ammunition Man stands to the right rear of the mortar. He prepares the ammunition and passes it to the Assistant Gunner. His rank is Private thru Lance Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Mortar Squad Leader.
2. Performs the tasks required of an Ammunition Man in the 81mm Mortar Platoon (particularly in ammunition identification by type, ammunition handling, and ammunition fuse/charge settings).
3. Performs operator maintenance for and operates an M252 81mm mortar.
4. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
5. Emplaces and recovers an M18A1 Claymore mine.
6. Detects and marks a mine.
7. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
8. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
9. Perform self-aid and buddy aid.
10. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
11. Communicate using proper communications procedures with organic wired and wireless communications.
12. Performs operator maintenance for and operates an M998 high-back HMMWV.
13. Performs fire and movement as an individual and as a member of a mortar squad.
14. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
15. Repels an enemy assault by fire and close combat.

BILLET: Assistant Gunner, 81mm Mortar Platoon, Weapons Company. The 81mm Mortar Assistant Gunner stands on the right side of the mortar, facing the barrel and ready to load. In addition to loading, he is responsible for swabbing the bore after every 10 rounds have been fired or after each fire mission. He assists the Gunner in shifting the mortar when making large deflection changes. His rank is a Lance Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Mortar Squad Leader.
2. Perform the tasks required of an Assistant Gunner in the 81mm Mortar Platoon.
3. Performs operator maintenance for and operates an M252 81mm mortar.
4. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
5. Emplaces and recovers an M18A1 Claymore mine.
6. Detects and marks a mine.
7. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
8. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
9. Perform self-aid and buddy aid.
10. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
11. Communicate using proper communications procedures with organic wired and wireless communications.
12. Performs operator maintenance for and operates an M998 high-back HMMWV.
13. Performs fire and movement as an individual and as a member of a mortar squad.
14. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
15. Repels an enemy assault by fire and close combat.

BILLET: Gunner, 81mm Mortar Platoon, Weapons Company. The 81mm Mortar Gunner is on the left side of the mortar where he can manipulate the sight, elevate gear handle, and traverse the assembly wheel. He places firing data on the sight and lays the mortar for deflection and elevation. He and the Assistant Gunner make large deflection shifts by shifting the bipod assembly. His rank is a Lance Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the 81mm Squad Leader.
2. Perform the tasks required of Gunner in the 81mm Mortar Platoon.
3. Maintains the condition, care, and economical use of assigned personnel, weapons, and equipment.
4. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
5. Performs operator maintenance for and operates an M252 81mm mortar.
6. Emplaces and recovers an M18A1 Claymore mine.
7. Detects and marks a mine.
8. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
9. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
10. Perform self-aid and buddy aid.
11. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
12. Communicate using proper communications procedures with organic wired and wireless communications.
13. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
14. Performs fire and movement as an individual and as a member of a mortar squad.
15. Repels an enemy assault by fire and close combat.

BILLET: Squad Leader, 81mm Mortar Platoon, Weapons Company. The 81mm Mortar Squad Leader is responsible for the tactical employment of the 81mm Mortar and stands behind the mortar where he can command and control his squad. In addition to supervising the emplacement, laying, and firing of the mortar, he supervises all other squad activities. His rank is Corporal thru Sergeant and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Mortar Section Leader or the Mortar Platoon Commander.
2. Perform the tasks required of a Squad Leader in an 81mm Mortar Platoon.
3. Maintains the discipline, appearance, control, conduct, and welfare of his squad.
4. Trains his squad in the performance of tasks that support platoon training objectives.
5. Maintains the condition, care, and economical use of assigned weapons and equipment.
6. Performs operator maintenance for and operates an M252 81mm mortar.
7. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
8. Emplaces and recovers an M18A1 Claymore mine.
9. Detects and marks a mine.
10. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
11. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
12. Perform self-aid and buddy aid.
13. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
14. Communicate using proper communications procedures with organic wired and wireless communications.
15. Performs operator maintenance for and operates an M998 high-back HMMWV.
16. Writes and issues combat orders.
17. Performs fire and movement as an individual and as a member of a mortar squad.
18. Controls the fire and movement of his 81mm mortar squad.
19. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
20. Repels an enemy assault by fire and close combat.

BILLET: Forward Observer, 81mm Mortar Platoon, Weapons Company. The Forward Observer (FO) provides the eyes for the Fire Direction Center (FDC) and is normally attached to a forward unit. He initiates and adjusts mortar indirect fire, smoke, and illumination. He provides assistance to the supporting unit commander in planning targets appropriate for the mortars. His rank is Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Perform the tasks required of a Forward Observer (FO) in the 81mm Mortar Platoon.
2. Carry out the orders of the Fire Direction Center (FDC) Plotter.
3. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
4. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.

5. Performs fire and movement as an individual and as a member of a mortar squad.
6. Communicate using proper communications procedures with organic wired and wireless communications.
7. Calls for and adjusts indirect fire.
8. Repels an enemy assault by fire and close combat.
9. Perform the tasks required of Gunner in the 81mm Mortar Platoon.
10. Perform the tasks required of a Plotter/Recorder and Forward Observer (FO) for the Fire Direction Center (FDC) of the 81mm Mortar Platoon.
11. Capable of performing all the tasks required of an Ammunition Man and Assistant Gunner in the mortar section of a Weapons Platoon.
12. Perform self-aid and buddy aid.
13. Operates an M16 plotting board and M19 plotting board.
14. Performs operator maintenance for, and is a proficient marksman with a service rifle/carbine.
15. Engages targets with an M136 light anti-armor weapon and an M67 hand grenade.
16. Emplaces and recovers an M18A1 Claymore mine.
17. Detects and marks a mine.
18. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
19. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
20. Maintains the condition, care, and economical use of assigned personnel, weapons, and equipment.

BILLET: Recorder/Driver, 81mm Mortar Platoon, Weapons Company. The Recorder/Driver operates in the Fire Direction Center (FDC). He records firing data and assists in maintaining the mortar logs. He is also the HMMWV operator for the FDC. He communicates firing data to the gun line via wire. He serves as a backup plotting board operator. His rank is Lance Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Plotter.
2. Perform the tasks required of a Driver and a Recorder in the Fire Direction Center (FDC) of the 81mm Mortar Platoon.
3. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
4. Emplaces and recovers an M18A1 Claymore mine.
5. Detects and marks a mine.
6. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
7. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
8. Perform self-aid and buddy aid.
9. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
10. Communicate using proper communications procedures with organic wired and wireless communications.
11. Performs operator maintenance for and operates an M998 high-back HMMWV.
12. Performs fire and movement as an individual and as a member of a mortar squad.
13. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
14. Repels an enemy assault by fire and close combat.

BILLET: Plotter/Recorder, 81mm Mortar Platoon, Weapons Company. The Plotter/Recorder operates in the Fire Direction Center (FDC). He records firing data and assists in maintaining the mortar logs. He communicates firing data to the gun line via wire. He serves as a backup plotting board operator. His rank is Lance Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Plotter.
2. Perform the tasks required of a Plotter and a Recorder in the Fire Direction Center (FDC) of the 81mm Mortar Platoon.
3. Performs operator maintenance for and is a proficient marksman with an M16 series service rifle/carbine.
4. Operates an M16 plotting board and M19 plotting board.
5. Emplaces and recovers an M18A1 Claymore mine.
6. Detects and marks a mine.
7. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.
8. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
9. Perform self-aid and buddy aid.
10. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
11. Communicate using proper communications procedures with organic wired and wireless communications.
12. Performs operator maintenance for and operates an M998 high-back HMMWV.
13. Performs fire and movement as an individual and as a member of a mortar squad.
14. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
15. Repels an enemy assault by fire and close combat.

BILLET: Plotter, 81mm Mortar Platoon, Weapons Company. The Plotter operates in the Fire Direction Center (FDC). He records firing data and maintains the mortar logs. He communicates firing data to the gun line via wire. He serves as the primary plotting board operator. His rank is Corporal and his T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carry out the orders of the Mortar Section Leader or the Mortar Platoon Commander.
2. Perform the tasks required of a Plotter in the Fire Direction Center (FDC) of the 81mm Mortar Platoon.
3. Maintains the discipline, appearance, control, conduct, and welfare of his Fire Direction Center (FDC).
4. Trains his Fire Direction Center (FDC) in the performance of tasks that support platoon training objectives.
5. Maintains the condition, care, and economical use of assigned weapons and equipment.
6. Operates an M16 plotting board and M19 plotting board.
7. Performs operator maintenance for and is a proficient marksman with a service rifle/carbine.
8. Emplaces and recovers an M18A1 Claymore mine.
9. Detects and marks a mine.
10. Utilizes smoke grenades and pyrotechnics for signaling, illumination, and screening.

11. Determines current location and traverses designated points using a topographic map, lensatic compass, and protractor.
12. Perform self-aid and buddy aid.
13. Performs individual protective measures to counteract the effects of nuclear, biological, and chemical contamination.
14. Communicate using proper communications procedures with organic wired and wireless communications.
15. Performs operator maintenance for and operates an M998 high-back HMMWV.
16. Writes and issues combat orders.
17. Performs fire and movement as an individual and as a member of a mortar squad.
18. Controls his 81mm Fire Direction Center (FDC).
19. Locates, closes with, suppresses, and destroys the enemy by fire and maneuver.
20. Repels an enemy assault by fire and close combat.

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14004. 1000-LEVEL EVENTS

0341-60mm-1001: Maintain a 60mm mortar

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete 60mm mortar, cleaning gear and lubricants.

STANDARD: In accordance with TM 08206A-10/1A for the M224 and TM 08206B-OR for the M224A1.

PERFORMANCE STEPS:

1. Disassemble the 60mm mortar.
2. Clean the 60mm mortar.
3. Lubricate the 60mm mortar.
4. FOR THE M224A1 ONLY: There is no requirement to lubricate the cannon or bipods. Lubricate only the uncoated components. (The inconcel alloy material does not rust.).
5. Inspect the 60mm mortar.
6. Maintain SL-3 components.
7. Maintain gun book.

REFERENCES:

1. TM 08206A-10/1A Operator's Manual, M224 60mm Lightweight Company Mortar
2. TM 08206B-OR M224A1 60mm Lightweight Company Mortar

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event applies to both the M224 and the M224A1 60mm mortar. The task, condition, and standard are applicable to both systems.
2. Performance steps are written for the M224. Additional performance steps applicable to the M224A1 only will state "FOR THE M224A1 ONLY".

0341-60mm-1002: Perform individual actions to mount a 60mm mortar

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete 60mm mortar, assigned individual weapon, a designated location, an emplaced baseplate stake, and an emplaced direction stake, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To ensure the weapon is mission ready within 90 seconds.

PERFORMANCE STEPS:

1. Receive ADDRAC.
2. Ensure ammunition man places the baseplate against the baseplate stake at the 11 o'clock position.
3. Ensure the assistant gunner moves in position and places the bi-pods in front of the baseplate.
4. Connect barrel to base plate.
5. Connect bi-pods to lower saddle.
6. Ensure the ammunition man raises the elevation 15-17 turns.
7. FOR THE M224A1 ONLY: Ensure the ammunition man raises the elevation 8-10 turns.
8. Retrieve sight unit and set initial sight setting to 3200 mils deflection and 1100 mils elevation.
9. Place the sight on the weapon system.
10. Conduct five steps of crew drill.
11. Level the bubbles and obtain correct sight picture.
12. Announce "Gun Up."

REFERENCES:

1. MCRP 3-15.2A Mortars

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event applies to both the M224 and the M224A1 60mm mortar. The task, condition, and standard are applicable to both systems.
2. Performance steps are written for the M224. Additional performance steps applicable to the M224A1 only will state "FOR THE M224A1 ONLY".

0341-60mm-1003: Boresight a 60mm mortar

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete 60mm mortar, mounted in the upper saddle, an SL-3 complete boresight, while wearing a fighting load.

STANDARD: With a zero tolerance for deflection and elevation within 5 minutes.

PERFORMANCE STEPS:

1. Place out sight box 10 meters from mortar position.
2. FOR THE M224A1 ONLY: Place the M8 assault baseplate out 10 meters from the mortar position. (M8 assault baseplate is used in place of the sight box to complete this task.)
3. Set deflection scale to 3200.
4. Set elevation scale to 0800.
5. Attach bore sight.
6. Move bi-pods in line with sight box.
7. Level and cross level elevation bubbles on mortar sight.
8. Manipulate boresight to level the cross level and elevation bubbles.
9. Use the elevation micrometer knob to elevate or lower the sight until the elevation level bubble is centered. If necessary, cross level the sight unit.
10. Gunner aligns the ghost line in the bore sight to the right edge of the black circle on the sight box while giving hand and arm signals to the ammunition man.
11. FOR THE M224A1 ONLY: Gunner aligns the ghost line in the bore sight to the right edge of the circle on the M8 assault baseplate while giving hand and arm signals to the ammunition man.
12. Recheck bubbles and adjust if necessary.
13. Manipulate deflection micrometer knob and align the crosshair to the left edge of the black circle of the sight box.
14. FOR THE M224A1 ONLY: Manipulate deflection micrometer knob and align the crosshair to the left edge of the circle on the M8 assault baseplate.
15. Adjust elevation and deflection scales to zero.
16. Align zero index lines.
17. Ensure boresight and mortar sight have proper sight picture.
18. Announce "Gun # bore sighted."

REFERENCES:

1. MCRP 3-15.2A Mortars
2. TM 08206A-10/1A Operator's Manual, M224 60mm Lightweight Company Mortar
3. TM 08206B-OR M224A1 60mm Lightweight Company Mortar

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event applies to both the M224 and the M224A1 60mm mortar. The task, condition, and standard are applicable to both systems.
2. Performance steps are written for the M224. Additional performance steps applicable to the M224A1 only will state "FOR THE M224A1 ONLY".

0341-60mm-1004: Perform pre-fire safety checks on a 60mm mortar in the conventional mode

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted, SL-3 complete 60mm mortar, while wearing a fighting load.

STANDARD: To ensure operation of the weapon system.

PERFORMANCE STEPS:

1. Check for mask and overhead clearance.
2. Open end of the locking cap is facing the direction of fire.
3. Spherical projection is fully seated and locked in the locking cap.
4. The carrying handle is straight up and to the rear.
5. The selector switch is on "D" for drop fire.
6. The bipod is connected to the lower saddle.
7. The collar-locking knob is hand or wrist tight.
8. The coarse leveling nut is hand or wrist tight.
9. The sight unit is fully seated and locked into the sight unit dovetail slot.
10. Ensure that the spread cable is taught.
11. FOR THE M224A1 ONLY: Ensure right (plain) bipod leg is locked into position.
12. FOR THE M224A1 ONLY: Ensure that the block clamp knob is wrist tight.

REFERENCES:

1. MCRP 3-15.2A Mortars
2. TM 08206A-10/1A Operator's Manual, M224 60mm Lightweight Company Mortar
3. TM 08206B-OR M224A1 60mm Lightweight Company Mortar

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event applies to both the M224 and the M224A1 60mm mortar. The task, condition, and standard are applicable to both systems.
2. Performance steps are written for the M224. Additional performance steps applicable to the M224A1 only will state "FOR THE M224A1 ONLY".

0341-60mm-1006: Clear a misfire for a 60mm mortar in the hand held mode

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a loaded (dummy round) 60mm mortar with baseplate, with a malfunction, assigned individual weapon, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To return the weapon system into action.

PERFORMANCE STEPS:

1. Squeeze trigger a second time to confirm malfunction.
2. Announce "Misfire."
3. Place firing selector on "S."
4. Without inverting the cannon, attempt to dislodge round by bouncing the mortar at least 6 inches from the ground.
5. Place firing selector on "T."
6. Squeeze trigger twice.
7. If round does not fire, place firing selector on "S" and support the mortar with sandbags, logs or empty ammo boxes and check for heat with finger tips from just below the muzzle to the base (during peacetime, the squad should back off the gun line 50 meters).
8. Allow cannon to cool.
9. Lift base cap end of cannon.
10. Ensure assistant gunner places hands around muzzle.
11. If round slides out of cannon, ensure assistant gunner stops the round with the meaty portions of his thumbs, removes it from bore, and passes it to the ammunition handler.
12. Ensure ammunition man inspects the round and reinserts the safety pin.
13. Ensure ammunition man places suspect round in dud pit, if necessary.
14. If round will not slide out of cannon, ensure cannon is maintained in a horizontal position and pointed down range and placed in a designated dud pit.
15. Notify EOD.

REFERENCES:

1. TM 08206A-10/1A Operator's Manual, M224 60mm Lightweight Company Mortar
2. TM 08206B-OR M224A1 60mm Lightweight Company Mortar

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17430 Impact Area Dudded
Facility Code 17670 Mortar Range

EQUIPMENT: Task requires use of (1) EOD certified inert round.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event applies to both the M224 and the M224A1 60mm mortar. The task, condition, standard and performance steps are applicable to both systems.
 2. If you get two misfires in a row, stop firing and notify unit armory.
 3. Do not put hands on base cap when lifting and holding the breech end of cannon tube.
 4. After lifting mortar out of baseplate, never allow breech cap end to go below horizontal position until the round is removed.
 5. Never put your hands behind or in front of the muzzle.
 6. Never attempt to remove a misfired round from a hot cannon.
 7. Trigger firing with an unseated baseplate is prohibited in the conventional mode.
 8. Hand-held mode is authorized for charge 0 and charge 1 usage only.
 9. When waiting for canon to cool, it is acceptable to assist in the cooling process by pouring water on the cannon.
-

0341-60mm-1007: Fire a 60mm mortar in the hand held mode

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a 60mm mortar, a baseplate, a heat mitten, assigned individual weapon, prepared ammunition, and targets between 400 and 1340 meters, as the gunner in a mortar team, while a fighting load.

STANDARD: To achieve effects on target within 4 rounds.

PERFORMANCE STEPS:

1. Ensure the ammunition man prepares the ammunition.
2. Assume position behind the weapon.
3. Place fire selector on "T."
4. Ensure the assistant gunner loads round and assumes safe firing position.
5. Estimate range and lay weapon on target.
6. Squeeze the trigger.
7. Observe the impacts and make corrections.
8. Repeat steps 4 through 6 until the rounds have effect on target.

REFERENCES:

1. TM 08206A-10/1A Operator's Manual, M224 60mm Lightweight Company Mortar
2. TM 08206B-OR M224A1 60mm Lightweight Company Mortar

SUPPORT REQUIREMENTS:

ORDNANCE:

DODIC

BA16 Cartridge, 60mm HE M720A1 w/ Fuse M734A1

Quantity

4 rounds per Marine

RANGE/TRAINING AREA:

Facility Code 17670 Mortar Range

Facility Code 17430 Impact Area Dudded

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event applies to both the M224 and the M224A1 60mm mortar. The task, condition, standard and performance steps are applicable to both systems.
2. If you get two misfires in a row, stop firing and notify unit armory.
3. Do not put hands on base cap when lifting and holding the breech end of cannon tube.
4. After lifting mortar out of baseplate, never allow breech cap end to go below horizontal position until the round is removed.
5. Never put your hands behind or in front of the muzzle.
6. Never attempt to remove a misfired round from a hot cannon.
7. Trigger firing with an unseated baseplate is prohibited in the conventional mode.
8. Hand-held mode is authorized for charge 0 and charge 1 usage only.

9. When waiting for canon to cool, it is acceptable to assist in the cooling process by pouring water on the cannon.

0341-60mm-1008: Clear a misfire for a 60mm mortar in the conventional mode

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete 60mm mortar, Dummy round, assigned individual weapon, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To ensure the weapon is cleared of ammunition.

PERFORMANCE STEPS:

1. Announce "MISFIRE".
2. Ensure squad leader braces bipod.
3. Kick the barrel three times (high, medium and low) as necessary.
4. If round fires, the mortar is re-laid and firing is continued.
5. If round, charge 0 or 1 only, does not fire, place firing selector on "T".
6. Squeeze trigger three times.
7. If round still does not fire, place firing selector on "S" (during peacetime, the squad should back off the gun line 50 meters).
8. Allow cannon to cool.
9. Lock data and remove sight unit.
10. Lower cannon to .25 inches (.64cm) of inner elevation sleeve showing.
11. Loosen collar knob.
12. Rotate cannon 90 degrees away from the gunner.
13. Lift base cap out of the baseplate.
14. Lift breech end of cannon.
15. Ensure assistant gunner places hands around muzzle.
16. If round slides out of cannon, ensure assistant gunner stops the round with the meaty portions of his thumbs, removes it from bore, and passes it to the ammunition handler.
17. Ensure ammunition man inspects the round and reinserts the safety pin.
18. Ensure ammunition man places suspect round in dud pit, if necessary.
19. If round will not slide out of cannon, remove cannon from bipod and ensure cannon is taken to the dud pit.
20. Notify EOD.

REFERENCES:

1. TM 08206A-10/1A Operator's Manual, M224 60mm Lightweight Company Mortar
2. TM 08206B-OR M224A1 60mm Lightweight Company Mortar

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17430 Impact Area Dudded
Facility Code 17670 Mortar Range

EQUIPMENT: Task requires use of (1) EOD certified inert round.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event applies to both the M224 and the M224A1 60mm mortar. The task, condition, standard and performance steps are applicable to both systems.
2. If you get two misfires in a row, stop firing and notify unit armory.
3. Do not put hands on base cap when lifting and holding the breech end of cannon tube.
4. After lifting mortar out of baseplate, never allow breech cap end to go below horizontal position until the round is removed.
5. Never put your hands behind or in front of the muzzle.
6. Never attempt to remove a misfired round from a hot cannon.
7. Trigger firing with an unseated baseplate is prohibited in the conventional mode.
8. When waiting for canon to cool, it is acceptable to assist in the cooling process by pouring water on the cannon.

0341-81mm-1001: Maintain an 81mm mortar

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete 81mm mortar, cleaning gear and lubricants.

STANDARD: In accordance with TM 09922A-10/1.

PERFORMANCE STEPS:

1. Disassemble the 81mm Mortar.
2. Clean the 81mm Mortar.
3. Lubricate the 81mm Mortar.
4. Inspect the 81mm Mortar.
5. Maintain SL-3 components.
6. Maintain gun book.

REFERENCES:

1. TM 09922A-10/1 M252 81mm Mortar Operator's Manual

0341-81mm-1002: Perform individual actions to mount an 81mm mortar

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete 81mm mortar, tools, assigned individual weapon, a designated location, a direction of fire, and an emplaced direction stake, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To ensure the weapon is mission ready within 90 seconds.

PERFORMANCE STEPS:

1. Ensure the ammunition man places the baseplate against the baseplate stake at the 11 o'clock position.
2. Ensure the assistant gunner attaches the barrel to the base plate.
3. Place bipods in position and attach the barrel to bipods.
4. Retrieve sight unit and set initial sight setting to 3200 mils deflection and 1100 mils elevation.
5. Place sight unit on the weapon.
6. Perform 5-step crew drill.
7. Obtain proper sight picture.
8. Announce "Gun Up."

REFERENCES:

1. MCRP 3-15.2A Mortars
-

0341-81mm-1003: Boresight an 81mm mortar

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted, SL-3 complete 81mm mortar, and an SL-3 complete boresight, while wearing a fighting load.

STANDARD: With a zero tolerance for deflection and elevation within 5 minutes.

PERFORMANCE STEPS:

1. Set deflection scales to 6400 mils and elevation scales to 0800 mils.
2. Attach boresight.
3. Select an aiming point at least 200 meters away.
4. Move bi-pods to align sight on aiming point.
5. Check level bubbles and adjust if necessary.
6. Manipulate boresight to level the cross level and elevation bubbles.
7. Use the elevation micrometer knob to elevate or lower the sight until the elevation level bubble is centered. If necessary, cross level the sight unit.
8. Traverse the mortar no more than two turns of center of traverse.
8. Rotate the deflection micrometer knob until the sight is aligned on the aiming point.
9. Recheck bubbles and adjust if necessary.
10. Adjust deflection and elevation scales to 0.
11. Ensure boresight and mortar sight have proper sight picture.

12. Recheck bubbles and adjust if necessary.
13. Announce "Gun # Boresighted."

REFERENCES:

1. MCRP 3-15.2A Mortars
-

0341-81mm-1004: Perform pre-fire safety checks on an 81mm mortar

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted, SL-3 complete, 81mm mortar, while wearing a fighting load.

STANDARD: To ensure operation of the weapon system.

PERFORMANCE STEPS:

1. Check for mask and overhead clearance.
2. Open end of the locking cap is facing the direction of fire.
3. Breech plug is fully seated and locked into the socket cap.
4. Firing pin recess is straight up and to the rear.
5. Barrel clamp assembly is flushed against the lower stopping band.
6. The bipod is connected to the lower saddle.
7. Fix leg is lowered to the lowest point.
8. Fix leg locking knob is hand or wrist tight.
9. The M64 sight unit is fully seated and locked into the sight unit dovetail slot.
10. Ensure the teeth are meshed.

REFERENCES:

1. MCRP 3-15.2A Mortars
-

0341-81mm-1005: Clear a misfire for an 81mm mortar

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete 81mm mortar, dummy round, assigned individual weapon, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To ensure the weapon is cleared of ammunition.

PERFORMANCE STEPS:

1. Announce "MISFIRE."
2. Ensure gunner braces bipod.
3. Kick the barrel three times (high, medium and low) as necessary.
4. If round fires, the mortar is re-laid and firing is continued.
5. If round does not fire, allow cannon to cool (during peacetime, the squad should back off the gun line 50 meters).
6. Lock data and remove sight unit.
7. Loosen firing pin.
8. Lower cannon to lowest elevation.
9. Remove firing pin.
10. Loosen collar.
11. Rotate cannon 90 degrees toward gunner.
12. Lift breech plug out of the baseplate.
13. Lift breech end of cannon.
14. Ensure assistant gunner places hands around muzzle.
15. If round slides out of cannon, ensure assistant gunner stops the round with the meaty portions of his thumbs, removes it from bore, and passes it to the ammunition handler.
16. Ensure ammunition man inspects the round and reinserts the safety pin.
17. Ensure ammunition man places suspect round in dud pit, if necessary.
18. If round will not slide out of cannon, ensure cannon is maintained in a horizontal position, pointed down range, and placed in a designated dud pit.
19. Notify EOD.

REFERENCES:

1. TM 09922A-10/1 M252 81mm Mortar Operator's Manual

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17430 Impact Area Dudded

Facility Code 17670 Mortar Range

EQUIPMENT: Task requires use of (1) EOD certified inert round.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. If you get two misfires in a row, stop firing and notify unit armory.
2. Do not put hands on base cap when lifting and holding the breech end of cannon tube.
3. After lifting mortar out of baseplate, never allow breech cap end to go below horizontal position until the round is removed.
4. Never put your hands behind or in front of the muzzle.
5. Never attempt to remove a misfired round from a hot cannon.
6. When waiting for cannon to cool, it is acceptable to assist in the cooling process by pouring water on the cannon.

0341-WPNS-1001: Manipulate a mortar for a small deflection and elevation change

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a fire command with a deflection change less than or equal to 60 mils and an elevation change less than or equal to 100 mils, a mounted mortar, and while wearing a fighting load.

STANDARD: Within 35 seconds.

PERFORMANCE STEPS:

1. Receive a fire command.
2. Place the deflection and elevation settings on the sight unit.
3. Lay the mortar for elevation.
4. Traverse onto the aiming stakes to achieve sight picture.
5. Announce "Gun Up."

REFERENCES:

1. MCRP 3-15.2A Mortars

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17430 Impact Area Dudded
Facility Code 17670 Mortar Range

0341-WPNS-1002: Manipulate a mortar for a large deflection and elevation change

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a fire command with a deflection change greater than 60 mils and an elevation change greater than 100 mils but less than 200 mils, a mounted mortar, and while wearing a fighting load.

STANDARD: Within 60 seconds.

PERFORMANCE STEPS:

1. Receive a fire command.
2. Place the deflection and elevation settings on the sight unit.
3. Move the bipods to achieve sight picture.
4. Rough level the cross-level bubble.
5. Level elevation bubble.
6. Level the cross-level bubble.
7. Traverse onto the aiming post to achieve proper sight picture.
8. Announce "Gun # Up".

REFERENCES:

1. MCRP 3-15.2A Mortars
- 2.

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17430 Impact Area Dudded
Facility Code 17670 Mortar Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: The mortar should be within two turns of center traverse, the open end of the socket cap must continue to face the direction of fire.

0341-WPNS-1003: Refer and realign a mortar

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete mortar, assigned individual weapon, and a subsequent fire command, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To ensure the weapon system is mission ready within 75 seconds.

PERFORMANCE STEPS:

1. Receive administrative deflection.
2. Place data on sight unit.
3. Level weapon system and achieve proper sight picture.
4. Receive "adjusting guns did hit" deflection.
5. Ensure the ammunition man is positioned to realign aiming posts.
6. Lay in aiming posts.
7. Center traverse and relay gun on the aiming posts.
8. Announce "Gun Up".

REFERENCES:

1. MCRP 3-15.2A Mortars
-

0341-WPNS-1004: Lay a mortar utilizing reciprocal lay in relation to the aiming circle

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete mortar, assigned individual weapon, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To ensure the weapon system is mission ready within one minute and 55 seconds (1:55).

PERFORMANCE STEPS:

1. Lay mortar in general direction of fire.
2. Receive command.
3. Refer sights to aiming circle.
4. Announce "Aiming point identified."
5. Receive deflection from aiming circle operator.
6. Place data on sights.
7. Perform 5-step crew drill, relaying gun to aiming circle.
8. Announce "Gun ready for recheck."
9. Repeat steps 5 - 7 until within 1 mil of aiming circle deflection.
10. Announce "Gun zero to one mil out, gun laid."
11. Receive refer deflection.
12. Place refer deflection.
13. Ensure the ammunition man is positioned to realign aiming posts.
14. Lay in aiming posts.

REFERENCES:

1. MCRP 3-15.2A Mortars

0341-WPNS-1005: Fire a mortar using direct lay

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a general location, a mounted SL-3 complete 60mm or 81mm mortar, prepared ammunition, assigned individual weapon, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To achieve effects on target within 4 rounds.

PERFORMANCE STEPS:

1. Estimate range to target.
2. Determine initial elevation setting and place on sights.
3. Place a 3200 mil deflection on the sight.
4. Lay gun on the center of the target.
5. Fire initial round.
6. Refer the sights onto the burst.
7. If necessary, perform 5-step crew drill to relay gun on target.
8. Adjust rounds for range.
9. Level the elevation.
10. Continue adjustments as necessary.

REFERENCES:

1. MCRP 3-15.2A Mortars

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
BA16 Cartridge, 60mm HE M720A1 w/ Fuse M734A1	4 rounds per Marine
C869 Cartridge, 81mm HE M889/M889A1 with	4

RANGE/TRAINING AREA:

Facility Code 17670 Mortar Range
Facility Code 17430 Impact Area Dudded

OTHER SUPPORT REQUIREMENTS:

1. Pneumatic Mortar
2. ISMT - 60mm Mortar
3. ISMT - 81mm Mortar

0341-WPNS-1006: Fire a mortar using traverse and search fire

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mounted SL-3 complete 60mm or 81mm mortar, assigned individual weapon, prepared ammunition, fire commands and a target area, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To accomplish the mission per the fire commands.

PERFORMANCE STEPS:

1. Receive and repeat a fire command.
2. Receive data and place the data on the sight.
3. Prepare gun for mission.
4. Lay mortar on the aiming posts.
5. Announce "Gun Up."
6. On command, ensure the assistant gunner half-loads and fires the initial round.
7. Manipulate the traverse and elevation hand crank the appropriate number of turns.
8. Re-level the cross level bubble.
9. On command, ensure the assistant gunner half loads and fires each subsequent round.
10. Repeat steps 7-9 until all rounds required by the fire command are expended.

REFERENCES:

1. MCRP 3-15.2A Mortars
2. MCRP 3-15.2B Mortar Gunnery

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
BA16 Cartridge, 60mm HE M720A1 w/ Fuse M734A1	4 rounds per weapon
C869 Cartridge, 81mm HE M889/M889A1 with	4

RANGE/TRAINING AREA:

Facility Code 17430 Impact Area Dudded
Facility Code 17670 Mortar Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: The total number of rounds and turns between rounds will be given to the mortar squad prior to execution of event by the FDC, or FO if operating without an FDC.

0341-WPNS-1007: Prepare 60mm mortar ammunition for firing

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a fire command, mortar ammunition, and a fuse wrench, while wearing a fighting load.

STANDARD: In accordance with the fire command.

PERFORMANCE STEPS:

1. Remove cartridge from container.
2. Inspect the round.
3. Set the fuse.
4. Reduce the charge.
5. Remove safety wires.

REFERENCES:

1. MCRP 3-15.2A Mortars

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
B643 Cartridge, 60mm High Explosive M888	1
B647 Cartridge, 60mm Illuminating M721	1
BA14 Cartridge, 60mm Smoke White Phosphor	1 round per Marine

RANGE/TRAINING AREA:

Facility Code 17670 Mortar Range
Facility Code 17430 Impact Area Dudded

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Live fire range and impact area suitable for mortars (if live ammunition is used).
2. Expenditure of ammunition is not required. All available DODICs should be use to complete this task to standard.
3. This task can be performed to standard in conjunction with any fire mission.

0341-WPNS-1008: Prepare 81mm mortar ammunition for firing

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a fire command, mortar ammunition, and a fuse wrench, while wearing a fighting load.

STANDARD: In accordance with the fire command.

PERFORMANCE STEPS:

1. Remove cartridge from container.
2. Inspect the round.
3. Set the fuse.
4. Reduce the charge.
5. Remove safety wires.

REFERENCES:

1. MCRP 3-15.2A Mortars

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
C869 Cartridge, 81mm HE M889/M889A1 with	1
C870 Cartridge, 81mm Smoke Red Phosphorus	1 round per Marine
C871 Cartridge, 81mm Illuminating M853A1	1

RANGE/TRAINING AREA:

Facility Code 17670 Mortar Range
Facility Code 17430 Impact Area Dudded

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Live fire range and impact area suitable for mortars (if live ammunition is used).
2. Expenditure of ammunition is not required. All available DODICs should be use to complete this task to standard.
3. This task can be performed to standard in conjunction with any fire

mission.

0341-WPNS-1009: Construct a mortar position

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given tools, sandbags, and assigned individual weapon, as a member of a mortar team, while wearing a fighting load.

STANDARD: Within dimensions required for the assigned mortar system.

PERFORMANCE STEPS:

1. Outline the dimensions of mortar position on the ground.
2. Construct stage I of mortar position.
3. Construct stage II of mortar position.
4. Construct stage III of mortar position.

REFERENCES:

1. MCWP 3-15.2 Tactical Employment of Mortars

14005. 2000-LEVEL EVENTS

0341-FDC-2001: Respond to an untrained observer

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Fire Direction Center (FDC) and an untrained forward observer.

STANDARD: To talk the observer through a call for fire sequence in order to issue fire commands.

PERFORMANCE STEPS:

1. Identify observer as friendly.
2. Assist the observer in finding his location.
3. Assist the observer in target location using the shift, grid, or polar method or terrain association.
4. Ask the observer for the target description.
5. Ask the observer for the direction to the target.
6. Assist the observer in adjusting impact of rounds using the finger method of adjusting.

7. Adjust fire.
8. Request Fire For Effect (FFE).
9. End mission.

REFERENCES:

1. MCRP 3-15.2A Mortars
 2. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2002: Setup the plotting board using the pivot point method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Plot the mortar position on a map.
2. Plot the enemy position/area on a map.
3. Determine the direction of fire.
4. Determine the mounting azimuth by rounding the direction of fire to the nearest 50 mils.
5. Superimpose the referred deflection scale on the azimuth disk.
6. Ensure the Squad Leaders know the mounting azimuth and referred deflection.
7. Complete data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2003: Compute firing data using the pivot point method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board, and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. For Grid target location.
2. Plot the enemy position/area on a map.
3. Determine the direction of fire and range between the adjusting gun and the target.
4. Index the azimuth disk to the direction of fire.
5. Using the vertical center line, plot the target at the distance on top of the vertical centerline.
6. For Polar target location.
7. Plot the Forward Observers position on a map.
8. Determine the azimuth from the adjusting gun to the Forward Observer.
9. Index the azimuth disk to the gun-observer azimuth.
10. Using the vertical center line, plot the Forward Observer at the distance on top of the vertical centerline.
11. Index the azimuth disk to the observer-target direction.
12. Using the range arm and plotting board, plot the target vertically from the Forward Observers location.
13. For Shift target location.
14. Index the azimuth disk to the observer-target direction.
15. Using the Forward Observers corrections plot the new target from the known point.
16. Once the target is plotted rotate the azimuth disk until the target falls on the vertical center line.
17. Determine the deflection.
18. Using the range arm determine the range by measuring the distance between the adjusting gun and the target.
19. Using the firing tables, determine what elevation and charge correspond to the range of the target.
20. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery

0341-FDC-2004: Setup the plotting board using the below the pivot point method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Plot the mortar position on a map.
2. Plot the enemy position/area on a map.
3. Determine the direction of fire.
4. Index the azimuth disk to the direction of fire.

5. Ensure the mortar position is plotted 1000 meters below the pivot point for the 60mm mortar, 2000 meters below the pivot point for the 81mm mortar, and 500 meters left or right of the vertical index line for both mortars.
6. Determine the mounting azimuth by rounding the direction of fire to the nearest 50 mils.
7. Superimpose the referred deflection scale.
8. Ensure the Squad Leaders know the mounting azimuth and referred deflection.
9. Complete data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery

0341-FDC-2005: Compute firing data using the below pivot point method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board, and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. For Grid location method.
2. Plot the enemy position/area on a map.
3. Using a map and protractor, determine the direction of fire and range between the adjusting gun and the target.
4. Index the azimuth disk to the direction of fire.
5. Using the range arm and plotting board, plot the target vertically from the adjusting guns location.
6. For Polar location method.
7. Plot the Forward Observers position on a map.
8. Determine the azimuth and range between the adjusting gun and the Forward Observer.
9. Index the azimuth disk to the gun-observer azimuth.
10. Plot the Forward Observer vertically from the adjusting guns position.
11. Index the azimuth disk to the observer-target direction.
12. Plot the target vertically from the Forward Observers location.
13. For Shift location method.
14. Index the azimuth disk to the observer-target direction.
15. Using the Forward Observers corrections plot the new target from the known point.
16. Once the target is plotted rotate the azimuth disk until the adjusting gun and target line up, forming an imaginary vertical line.
17. Determine the deflection.
18. Using the range arm, determine the range by measuring the distance between the adjusting gun and the target.

19. Using the firing tables, determine what elevation and charge correspond to the range of the target.
20. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2006: Setup the plotting board using the surveyed firing chart method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a surveyed firing position and a surveyed target.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Determine grid index.
2. Index the azimuth disk to zero.
3. Superimpose the grid index on the plotting board.
4. Plot the registration point and mortar position on the plotting board.
5. Rotate the azimuth disk until mortar position and registration point form an imaginary line, this is the direction of fire.
6. Determine the mounting azimuth by rounding the direction of fire to the nearest 50 mils.
7. Superimpose the referred deflection scale.
8. Ensure the Squad Leaders know the mounting azimuth and referred deflection.
9. Complete data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2007: Conduct a registration

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board, and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Adjust adjusting gun on to registration point.
2. Fire section/platoon left or right.
3. Adjust each mortar on to target.
4. Direct all guns to refer their sights to the adjusting guns final firing deflection and realign their aiming post.
5. Determine range and deflection correction factors as required.
6. Record deflection correction factor and range correction factor for use in following missions.
7. Ensure that correction factors are applied to the final chart range and deflection of all previous missions at current position.
8. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
BA16 Cartridge, 60mm HE M720A1 w/ Fuse M734A1	9 rounds per weapon
CR69 Cartridge, 81mm HE M889/M889A1 with	9 rounds per weapon

RANGE/TRAINING AREA:

Facility Code 17430 Impact Area Dudded
Facility Code 17670 Mortar Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. If using a surveyed registration point, compute range and deflection correction factors.
2. Ammunition quantities are displayed as number of rounds per cannon to conduct this task to standard.

0341-FDC-2008: Compute data for a follow on mission using the surveyed firing chart

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board, correction factors, and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Determine firing deflection by applying the deflection correction factor to the chart deflection.
2. Determine the range difference for the mission by multiplying the range correction factor by the initial chart range of the follow on mission and rounding to the nearest 25 meters.
3. Determine the total range correction by adding the range difference and the vertical interval together.
4. Determine the firing range by adding the total range correction to the chart range.
5. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2009: Compute data for a traverse mission using a plotting board

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Ensure that all guns are plotted on the plotting board.
2. Index the azimuth disk to the attitude of the target.
3. Plot the near and far end of the target, half of the width vertically from the center plot and erase the center plot.
4. Determine the area that each gun must cover by dividing the width of the target by the number of mortars firing.
5. From the near point, plot points vertically, the distance that each gun must fire, one over another until the far point is reached.
6. Index the azimuth disk to the direction of fire.
7. Determine if traversing right or left. If traversing right, erase the far right plot. If traversing left, erase the far left plot.
8. From right to left assign each point a mortar to fire.
9. Determine the deflection, range, and elevation of each point from its corresponding mortar to fire.
10. Determine the rounds needed for each mortar by dividing each mortars area to be covered by the rounds effective casualty radius. Round up to the nearest whole number.
11. Determine the mils that each mortar must cover by dividing each mortars area to be covered by the center plots chart range expressed in

- thousandths.
12. Determine the number of turns for each mortar by dividing the mils to be covered by 10. Round to the nearest 1/2 turn.
 13. Determine the turns between rounds by dividing one less than the number of rounds per mortar by the turns per mortar. Round to the nearest 1/2 turn.
 14. Ensure that each mortar is given their deflection, charge, elevation, total number of rounds, turns between rounds, and direction of traverse.
 15. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2010: Compute data for a search mission using a plotting board

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Determine if searching up or down.
2. Determine starting point range. If searching up, add half of the length of the target to the center plots range. If searching down, subtract half of the length of the target from the center plots range.
3. Determine the rounds needed by dividing the area to be covered by the rounds effective casualty radius. Round up to the nearest whole number.
4. Using column 4 within the tabulated firing table (D), determine the number of turns per hundred meters at the final chart range.
5. Determine the number of turns for each mortar by expressing the area to be covered in hundredths and multiplying by the turns per hundred meters.
6. Determine the turns between rounds by dividing one less than the number of rounds to be fired into the total number of turns per gun. Round to the nearest 1/2 turn.
7. Ensure that each mortar is given their deflection, charge, elevation, total number of rounds, turns between rounds, and direction of search.
8. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
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0341-FDC-2011: Compute firing data for a quick smoke mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Adjust onto the target and fire one smoke conformation.
2. Determine number of rounds for 1 minute by dividing the meter front to be covered by 500 meters, and multiply by corresponding number from smoke card.
3. Determine number of rounds for establishment phase.
4. Determine the maintenance phase by dividing the establishment phase in half and multiplying by the duration.
5. Determine the interval between rounds by dividing half of the establishment phases rounds into 60 seconds. Always round down.
6. Ensure that each mortar is given their deflection, charge, elevation, total number of rounds and interval between rounds.
7. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
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0341-FDC-2012: Compute data for a final protective fire mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Ensure that all guns are plotted on the plotting board.
2. Utilizing the adjusting gun determine the deflection, range, and elevation to the target.
3. Fire a section left or right. FO will call adjustment starting with the danger close mortar and continue in numerically descending or ascending order.

4. Index the previously fired data and forward plot the mortars splash.
5. From the new point make the FOs adjustment.
6. Using the appropriate mortar determine the deflection, range, and elevation to the adjusted point.
7. Fire the mortar on the new data.
8. Continue to make adjustment on that guns shot until the FO announces gun___ adjusted repeat gun___.
9. Forward plot and fire the next gun at the last deflection and range fired.
10. Continue performing steps 5 through 9 until the last mortar is adjusted.
11. Ensure that the final protective fire data is recorded and that all mortars are given their end of mission data and number of ready rounds.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
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0341-FDC-2013: Compute data for an illumination mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Utilizing the illumination gun, determine the deflection, range, elevation, and time setting to the area to be illuminated.
2. Fire the adjusting mortar at the appropriate data.
3. Given an adjustment in reference to the observer-target direction, plot the deviation and range correction.
4. If there is height of burst correction refer to table E, columns 3&4 of the tabulated firing table.
5. Compute the interval.
6. Using the interval, determine the time/elevation correction.
7. Apply corrections as necessary.
8. Repeat steps 4 through 7 until the mission is complete.
9. Ensure that all information is recorded on the computer record and data sheets.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event can be used to fire illumination missions entailing lateral spreads, range spreads, and range lateral spreads.

0341-FDC-2014: Compute data for a coordinated illumination mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Utilizing the illumination gun determine the deflection, range, elevation, and time setting to the area to be illuminated.
2. Utilizing the high explosive gun, determine the deflection, range, and, elevation to the target.
3. Determine the mark time by firing the illumination gun.
4. Ensure that time is kept from the moment the mortar is shot to the moment that the FO announces mark illumination.
5. Determine the time interval between rounds by subtracting the HE time of flight from the mark time.
6. Fire the illumination, wait the time interval and then fire the HE.
7. As adjustments are received, repeat step 5 until fire for effect is received.
8. Fire for effect with no illumination.
9. Wait approximately 1 minute after the last shot and fire 1 illumination to assess effects.
10. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2015: Compute data for a Suppression of Enemy Air Defense mission (SEAD)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a setup plotting board and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Determine which mortars will engage the grid to mark and the grid to suppress.
2. Determine the deflection, range, elevation, maximum ordinance, and time of flight from the firing mortar to the grid to mark.
3. Determine the deflection, range, elevation, maximum ordinance, and time of flight from the firing mortar to the grid to suppress.
4. Determine time of fire for the mark.
5. Determine the time of fire for each suppression volley.
6. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Units for maximum ordinance are feet mean sea level (MSL).
2. Units for gun target line are degrees magnetic.

0341-FDC-2016: Prepare a fire command from a call for fire

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Call for Fire (CFF) and Equipment organic to an FDC, while operating in the Fire Direction Center (FDC).

STANDARD: Ensuring all required data is transmitted without error.

PERFORMANCE STEPS:

1. Receive call for fire.
2. Prepare eight elements of initial fire command from information in call for fire.
3. Send "Mortars to Follow".
4. Send shell and fuze.
5. Send Mortar to fire.
6. Send method to fire.
7. Send deflection.
8. Send charge.
9. Send time setting.
10. Send elevation.
11. Receive adjustments from forward observer.
12. Send subsequent fire commands to gunline.

REFERENCES:

1. MCRP 3-15.2A Mortars
2. MCRP 3-15.2B Mortar Gunnery

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Plotting board
 2. Mortar Ballistic Computer
 3. Radio
 4. Computer Record Sheet (DA 2399)
 5. TFT
-

0341-FDC-2017: Compute firing data using a Mortar Ballistic Computer

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Mortar Ballistic Computer (MBC), a Call for fire, and Computer record.

STANDARD: To within 1 mil of the primary MBC for deflection and 1 meter tolerance on range.

PERFORMANCE STEPS:

1. Initialize MBC.
2. Enter setup data.
3. Input firing data.
4. Record data on computer record.

REFERENCES:

1. FM 3-22.91 Mortar Fire Direction Procedures
2. TM 11042A-00 LHMC TM

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. MBC
2. Computer record

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Ensure all FDC personnel can compute data for Grid, Shift, Polar, and all Special types of missions.

0341-FDC-2018: Receive a Call For Fire (CFF)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a forward observer's Call For Fire (CFF) request, corrections and a computer records sheet.

STANDARD: To record the Call For Fire (CFF) without error.

PERFORMANCE STEPS:

1. Record observer identification and warning order.
2. Record target location.
3. Record target description, method of engagement, method of fire and control.
4. Send proper message to observer.
5. Record subsequent corrections.
6. Record refinement, Record as Target, End of Mission, and surveillance statement.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2019: Setup the plotting board using the modified observed firing chart method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center, a grid index, referred deflection, mortar position, and mounting azimuth.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. Index the azimuth disk to zero and superimpose the grid index on the plotting board.
2. Plot the mortar position on the plotting board.
3. Superimpose the referred deflection scale.
4. Ensure the Squad Leaders given the mounting azimuth and referred deflection.
5. Complete data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0341-FDC-2020: Compute firing data using the modified observed firing chart method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all equipment organic to a Fire Direction Center and a call for fire.

STANDARD: To within 10 mils of the check board for deflection and 25 meter tolerance on range.

PERFORMANCE STEPS:

1. For Grid location method.
2. Index zero.
3. Plot the enemy position/area on the plotting board.
4. For Polar location method.
5. Plot the Forward Observers position on the plotting board.
6. Index the azimuth disk to the observer-target direction.
7. Using the range arm and plotting board, plot the target vertically from the Forward Observers location.
8. For Shift location method.
9. Index the azimuth disk to the observer-target direction.
10. Using the Forward Observers corrections, plot the new target from the known point.
11. Once the target is plotted rotate the azimuth disk until the adjusting gun and target line up, forming an imaginary vertical line.
12. Determine the deflection.
13. Utilizing the range arm, determine the range by measuring the distance between the adjusting gun and the target.
14. Determine the elevation and charge.
15. Ensure that all information is recorded on the computer record and data sheet.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery

0341-FO-2001: Construct a terrain sketch

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the references, a compass, a pad of paper, pencils, and an information sheet containing a zone of observation and responsibility.

STANDARD: Accurately depicting a panoramic representation of the terrain in the zone of observation/responsibility.

PERFORMANCE STEPS:

1. Draw a panoramic representation of the terrain within the zone of observation: skyline, intermittent crests, all natural features, all manmade objects.

2. Determine and label the direction to all reference points in mils.
3. Update, as time permits.

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This task can be conducted to standard through the use of simulations, FOPC SIM and TSFO.

0341-FO-2002: Conduct an immediate suppression mission

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to the Forward Observer (FO), mortar unit, a target that needs to be immediately suppressed, and the references.

STANDARD: Transmitting a Call For Fire (CFF) within 60 seconds of target identification and ensuring initial target location is within 300 meters of the actual target location.

PERFORMANCE STEPS:

1. Locate the target.
2. Prepare the Call for Fire (CFF).
3. Transmit Call for Fire.
4. Transmit End of Mission (EOM).

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM and TSFO.
 2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.
-

0341-FO-2003: Conduct a Fire For Effect (FFE) Mission

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), mortar unit, and references.

STANDARD: Locating a target within +/-50 meters of the actual location and transmitting the Call For Fire (CFF) within 2 minutes of target identification.

PERFORMANCE STEPS:

1. Determine the target location.
2. Prepare and transmit the Call For Fire (CFF).
3. Transmit Refinement data (if any), Record as Target (if desired), End of Mission, and Surveillance (RREMS).

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM and TSFO.
2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.

0341-FO-2004: Conduct an Illumination Mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer, mortar unit, and the reference.

STANDARD: Ensuring the illumination Call For Fire (CFF) is transmitted within 2 minutes and the target is illuminated.

PERFORMANCE STEPS:

1. Locate the target.
2. Transmit the complete illumination call for fire, in sequence.
3. Determine subsequent corrections.
4. Transmit subsequent corrections.
5. Transmit Refinement data (if any), Record as Target (if desired), End of Mission, and Surveillance (RREMS).

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM and TSFO.
 2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.
-

0341-FO-2005: Conduct a Coordinated Illumination Mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), the reference, mortar unit, and suspected enemy activity.

STANDARD: By adjusting HE fire within +/-50 meters target.

PERFORMANCE STEPS:

1. Transmit the complete illumination Call For Fire (CFF), in sequence.
2. Determine and transmit subsequent corrections to include height of burst, if required.
3. Once target is illuminated, determine target location.
4. Transmit coordinated illumination Call For Fire (CFF), in sequence.
5. Transmit "MARK" when the illumination round best illuminates the target.
6. Determine and transmit subsequent corrections within 15 seconds of High Explosive (HE) round impact.
7. Fire For Effect (FFE).
8. Transmit Refinement data (if any), Record as Target (if desired), End of Mission, and Surveillance (RREMS).

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
 2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.
 3. NVGs/NVS will not be used.
-

0341-FO-2006: Conduct two Fire Missions simultaneously

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), mortar unit, references and two targets.

STANDARD: By Firing for Effect (FFE) within 50 meters of each target, within a maximum of three subsequent rounds used in adjustment.

PERFORMANCE STEPS:

1. Determine location of targets.
2. Prepare both Calls For Fire (CFFs).
3. Transmit both Calls for Fire in sequence.
4. Precede corrections with, "TARGET NUMBER".
5. Transmit Refinement data (if any), Record as Target (if desired), End of Mission, and Surveillance (RREMS).

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
 2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.
-

0341-FO-2007: Adjust Final Protective Fires (FPF)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), a unit requiring fire support, and references.

STANDARD: To within 10 meters of the desired location required by the unit commander.

PERFORMANCE STEPS:

1. Select an adjusting point based on the commander's guidance.
2. Transmit the complete call for fire in sequence announcing, "DANGER CLOSE".

3. Determine and transmit subsequent corrections for each gun to the nearest 10 meters.
4. Adjust fires using creeping fire techniques.
5. Continue adjustment until round bursts within 50 meters of the desired location.
6. Transmit refinement data and instruct the Fire Direction Center (FDC) to begin firing the next piece.
7. Repeat performance steps 5 and 6 until all guns are adjusted.
8. Transmit End Of Mission (EOM).

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This task can be conducted to standard through the use of simulations, FOPC SIM and TSFO.

0341-FO-2008: Conduct a Quick Smoke Mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), a unit requiring fire support, and references.

STANDARD: By obscuring enemy observation.

PERFORMANCE STEPS:

1. Determine size of the area to be obscured or screened.
2. Determine the wind direction and speed in relation to the maneuver-target line.
3. Determine relative humidity.
4. Determine temperature gradient.
5. Determine the desired obscuration effect (visual or infrared/IR).
6. Determine the adjusting point.
7. Determine the duration that the smoke is required.
8. Transmit Call For Fire (CFF).
9. Transmit corrections with high explosive, if necessary.
10. Request fire for effect with smoke following adjustment of high explosive rounds, when desired effects achieved.

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
 2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.
-

0341-FO-2009: Conduct a Mortar Registration

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO) and a mortar unit.

STANDARD: Ensuring that all guns are adjusted within 25 meters of their respective adjustment points.

PERFORMANCE STEPS:

1. Determine if conducting a coordinated or non-coordinated registration.
2. Transmit the call for fire.
3. Transmit subsequent corrections.
4. Adjust the sheaf, as necessary.

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This task can be conducted to standard through the use of simulations, FOPC SIM and TSFO.

0341-FO-2010: Conduct a Fire Mission on irregularly shaped targets

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the reference, equipment organic to a Forward Observer (FO), a mortar unit, and an irregularly shaped target.

STANDARD: By achieving desired effects on target.

PERFORMANCE STEPS:

1. Determine two end grids or a center grid with length and attitude to

- describe linear targets.
2. Determine attitude to the nearest 100 mils.
 3. Determine circular target as a center grid and a radius.
 4. Determine three or more grids to describe an irregular target when needed.
 5. Transmit Call For Fire.
 6. Adjust on target. (By gun as necessary)
 7. Fire for effect.
 8. Transmit Refinement data (if any), Record as Target (if desired), End of Mission, and Surveillance (RREMS).

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.

0341-FO-2011: Conduct a Suppression of Enemy Air Defense (SEAD) Fire Mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the references, equipment organic to a Forward Observer and a Forward Air Controller (FAC) or Joint Terminal Air Controller (JTAC) if aircraft are used.

STANDARD: Per the references, successfully coordinating with friendly air, and transmitting the Call For Fire (CFF) in the correct sequence.

PERFORMANCE STEPS:

1. Determine target to suppress.
2. Determine target to mark.
3. Determine type of SEAD.
4. Transmit call for fire.
5. Monitor time line for suppression and marking rounds.
6. Assess effects of suppression and marking rounds.
7. Report to FIST Team, as necessary.
8. Transmit Refinement data (if any), Record as Target (if desired), End of Mission, and Surveillance (RREMS).

REFERENCES:

1. MCRP 3-16.2 Techniques and Procedures for Fire Support Coordination
2. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.

0341-FO-2012: Locate a target using Grid Target Location Method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), grid coordinates for the FOs position, and references.

STANDARD: By announcing the six-digit (or eight-digit grid if additional accuracy is required) grid coordinate of the identified target within a 200-meter tolerance and within 50 seconds.

PERFORMANCE STEPS:

1. Determine direction to target.
2. Ensure FOs position is plotted on map.
3. Convert direction using GM angle.
4. Estimate range to target.
5. Using converted azimuth and range, plot target on map.
6. Identify target grid coordinates to at least 6 digit grid.

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

SUPPORT REQUIREMENTS:

OTHER SUPPORT REQUIREMENTS: SAVT

EQUIPMENT: VECTOR 21B or other approved Laser Target Acquisition System.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.

0341-FO-2013: Locate a target using Polar Target Location Method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), grid coordinates for the FOs position, and references.

STANDARD: Within 50 seconds after identification and within 200 meters of the actual location.

PERFORMANCE STEPS:

1. Update observer position, if required.
2. Determine the direction to the target.
3. Convert direction using GM angle.
4. Determine the distance to the target.
5. Determine the vertical shift (up or down) to the target.

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

SUPPORT REQUIREMENTS:

OTHER SUPPORT REQUIREMENTS: SAVT

EQUIPMENT: VECTOR 21B or other approved Laser Target Acquisition System.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.

0341-FO-2014: Locate a target using Shift from a Known Point Target Location Method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Forward Observer (FO), grid coordinates for the FOs position, references, and a known point.

STANDARD: By locating target within 50 seconds after identification and within 200 meters of the actual location.

PERFORMANCE STEPS:

1. Determine the direction to target.

2. Use the mil relation formula to determine the lateral shift from the known point to the target.
3. Determine the range difference from the known point to the target.
4. Determine the vertical shift (up or down) from the known point to the target.

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

SUPPORT REQUIREMENTS:

OTHER SUPPORT REQUIREMENTS: SAVT

EQUIPMENT: VECTOR 21B or other approved Laser Target Acquisition System.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.

0341-FO-2015: Conduct an Adjust Fire Mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the reference and equipment organic to the Forward Observer (FO).

STANDARD: Completing a call for fire within 60 seconds of target identification, by using one of the three target location methods.

PERFORMANCE STEPS:

1. Transmit Call for Fire (CFF) by using the six elements.
2. Determine and transmit OT direction with or before the first correction, as necessary.
3. Transmit subsequent corrections to within 50 meters of target.
4. Enter Fire For Effect phase (FFE).
5. Transmit Refinement data (if any), Record as Target (if desired), End of Mission (EOM), and surveillance (RREMS).

REFERENCES:

1. MCWP 3-16.6A Supporting Arms Observer, Spotter and Controller (FMFM 6-8)

SUPPORT REQUIREMENTS:

EQUIPMENT: Observation device with MIL reticle.

OTHER SUPPORT REQUIREMENTS: SAVT

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can be conducted to standard through the use of simulations, FOPC SIM.
2. This event may also be conducted and/or supplemented by the use of a Category I or II simulation devices and a simulation device operator.

0341-WPNS-2001: Control direct alignment

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a grid location of an unlaidd mortar unit, map, compass, firing table, protractor, and a target.

STANDARD: By achieving effects on target.

PERFORMANCE STEPS:

1. Announce mounting azimuth to gun line.
2. Announce initial fire command.
3. Determine all corrections with respect to the Gun-Target (GT) line.
4. Determine all deviation corrections in mils or turns of the traversing handwheel.
5. Determine all range corrections in meters, elevation, or turns of elevation hand crank.
6. Announce subsequent fire commands.
7. Continue adjustments until effects are achieved.

REFERENCES:

1. MCRP 3-15.2A Mortars
2. MCRP 3-15.2B Mortar Gunnery

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
BA16 Cartridge, 60mm HE M720A1 w/ Fuse M734A1	4 rounds per Marine
C869 Cartridge, 81mm HE M889/M889A1 with	4 rounds per Marine

RANGE/TRAINING AREA:

Facility Code 17670 Mortar Range
Facility Code 17430 Impact Area Dudded

0341-WPNS-2002: Direct the occupation of a mortar position

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission, mortar unit, and mission essential equipment.

STANDARD: To support higher headquarters' mission.

PERFORMANCE STEPS:

1. Conduct planning.
2. Conduct leader's reconnaissance.
3. Select firing positions.
4. Conduct advance party operations.
5. Ensure main body moves to firing positions.
6. Ensure security is established.
7. Ensure Gun line is laid on the direction of fire.
8. Ensure that fire direction center operational.
9. Ensure Positive communications are established.
10. Ensure fire capability (FIRECAP) report sent to higher.

REFERENCES:

1. MCWP 3-15.2 Tactical Employment of Mortars
-

0341-WPNS-2003: Declinate an M2 compass

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an M2 compass, a surveyed point with level platform, an azimuth marker, map pen, paper, and a topographical map.

STANDARD: To within 10 mils.

PERFORMANCE STEPS:

1. Place the compass over the surveyed point and level the compass on the aiming circle tripod, as required.
2. Remove all magnetic attractions from the area, as required.
3. Sight in on the azimuth marker.
4. Recheck the sight picture and verify the known azimuth.

REFERENCES:

1. MCWP 3-15.2 Tactical Employment of Mortars
2. TM 9-1290-333-15 W/CH 1-4 Compass Magnetic Unmounted, M2

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. M2 Compass
2. Aiming circle tripod
3. Declination station

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event can be trained to Officers and SNCOs leading mortar units.

0341-WPNS-2004: Mount an aiming circle.

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete aiming circle.

STANDARD: Ensuring the aiming circle is leveled in all four cardinal directions using the tubular level within 2 minutes.

PERFORMANCE STEPS:

1. Setup aiming circle tripod.
2. Level aiming circle tripod.
3. Remove the tripod head cover.
4. Open the baseplate cover of the aiming circle head.
5. Keeping the baseplate cover pointed toward you, thread the tripod guide screw assembly into the aiming circle.
6. Remove aiming circle cover and hang from tripod head cover.
7. Attach the plumb bob to the hook as necessary.
8. Expose sufficient threads (3/8 to 1/2 inch) on the three leveling screws.
9. Number the leveling screws clockwise: 1, 2, and 3.
10. Place the tubular level vial over the notation pad.
11. Grasp leveling screw number 1 between the thumb and forefinger of the right hand, and grasp leveling screw number 2 between the thumb and forefinger of the left hand.
12. Turn the screws so that the thumbs move toward or away from each other. Using these two leveling screws, center the bubble. The bubble moves in the same direction as the left thumb.
13. Rotate the aiming circle head until the magnifier is over the notation pad.
14. Level the tubular level by turning only level screw number 3. The bubble should now remain level in any direction that the aiming circle is rotated. A variation of one graduation from the center of the vial is acceptable.
15. If the bubble does not remain level, repeat this procedure.

REFERENCES:

1. MCRP 3-15.2A Mortars
2. TM 9-1290-262-10 Operator's Manual, Aiming Circle, M2 and M2A2

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. M2 Compass
2. Aiming circle tripod
3. Declination station

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event can be trained to Officers and SNCOs leading mortar units.

0341-WPNS-2005: Declinate an aiming circle

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete aiming circle and a declination station.

STANDARD: To ensure the declination constant is within 2 mils.

PERFORMANCE STEPS:

1. Set up and fine level the aiming circle directly over the declination station marker using the plumb bob.
2. Place the grid azimuth of the first azimuth marker on the scales using the recording motion. Place the vertical cross line of the telescope on the azimuth marker using the non-recording (orienting) motion. The aiming circle is now oriented on grid north.
3. With the recording motion, rotate the instrument to zero. Release the magnetic needle and look through the magnifier. Center the north-seeking needle using the recording motion, and then relock the magnetic needle.
4. Notice the new azimuth on the scale, which is the declination constant. Record it.
5. Recheck the aiming circle level and repeat steps 2 through 4 using the remaining azimuth markers until three readings have been taken. If there is only one marker, repeat the entire procedure twice using the same marker.
6. Find the average declination constant using these three readings.
7. Record the average declination constant.

REFERENCES:

1. MCRP 3-15.2A Mortars

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. SL-3 complete aiming circle
2. Declination station

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Aiming circle needs to be declinated every 25 miles of movement, after an electrical storm, every 30 days, and when it is initially received.
2. This event can be trained to Officers and SNCOs leading mortar units.

0341-WPNS-2006: Lay a mortar with an aiming circle

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a declinated aiming circle, a mounting azimuth, and a mortar squad.

STANDARD: To within 1 mil.

PERFORMANCE STEPS:

1. Set-up aiming circle.
2. If necessary, convert the magnetic mounting azimuth to a grid azimuth.
3. Subtract the azimuth of fire from the declination constant.
4. Set the remainder on the azimuth and micrometer scale.
5. Release the compass needle.
6. Rotate the aiming circle until the needle is centered within the etched marks of the magnifier.
7. Relock the compass needle.
8. Orient the aiming circle on the mounting azimuth using upper recording motion.
9. Lay the vertical cross line on the mortar sight.
10. Announce "Aiming point this instrument".
11. The gunner will respond "Aiming point identified".
12. Turn the azimuth micrometer knob of the aiming circle until the vertical cross lines are laid on the center of the gun sight lens.
13. Read the deflection from the micrometer scale.
14. Announce "Gun XX deflection XXXX".
15. The gunner will respond "Gun XX ready for recheck".
16. Repeat performance steps 12 - 15 until the gunner announces "Gun XX zero to 1 mil out, gun laid".

REFERENCES:

1. MCRP 3-15.2A Mortars

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. Declinated aiming circle tripod.
2. SL-3 complete mortar.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event can be trained to Officers and SNCOs leading mortar units.

0341-WPNS-2007: Lay a mortar using sight to sight method

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given two mortar squads and a mounting azimuth.

STANDARD: To within 1 mil.

PERFORMANCE STEPS:

1. From the base gun announce "gun line aiming point this instrument".
2. All guns refer their sights to the base guns sight and announce "gun XX aiming point identified".
3. The base gun will rotate the deflection micrometer knob and place the vertical line of the sight on the sight of the reference gun.
4. The base gun will announce the deflection to the reference gun. (Base gun will compute back azimuth adding or subtracting 3200 to the deflection as required.)
5. The reference gun will respond "Gun XX ready for recheck".
6. Repeat performance steps 3 and four until reference gun announces "Gun XX zero - one mils out, gun laid".

REFERENCES:

1. MCRP 3-15.2A Mortars

SUPPORT REQUIREMENTS:

EQUIPMENT: 2 x SL-3 complete mortars.

0341-WPNS-2008: Lay a mortar with a compass

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a declinated compass, a SL-3 complete mortar system, a mounting azimuth, assigned individual weapon, as the gunner in a mortar team, while wearing a fighting load.

STANDARD: To within 10 mils of the mounting azimuth.

PERFORMANCE STEPS:

1. Orient compass to mounting azimuth.
2. Place compass on base plate stake.
3. Dispatch ammo man with aiming stake to 50 meters from gun on mounting azimuth.
4. Position ammo man on line with mounting azimuth.
5. Direct ammo man to plant stake and return to gun.

REFERENCES:

1. MCRP 3-15.2A Mortars
-

0341-WPNS-2009: Burn increments

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0341

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given unused increments, while wearing a fighting load.

STANDARD: To dispose of remaining increments.

PERFORMANCE STEPS:

1. Select an area 100 meters from the nearest mortar position, parked vehicles, and ammunition piles.
2. Select an area clear of dead grass and brush for at least 30 meters wide.
3. Place increments on ground.
4. Form a row 4-6 inches wide and as long as necessary.
5. Do not pile increments more than 1-2 inches high.
6. End train of increments with a row of single increments, followed by at least 1 meter of dry grass or dead leaves.
7. Announce "Burning Increments" and do not look at the fire.
8. Ignite dry grass or leaves.
9. Allow ensuing fire to self-extinguish.
10. Destroy increments daily.

REFERENCES:

1. TM 08206A-10/1A Operator's Manual, M224 60mm Lightweight Company Mortar
2. TM 09922A-10/1 M252 81mm Mortar Operator's Manual

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event is conducted in conjunction with all live-fire events.

INFANTRY T&R MANUAL

CHAPTER 15

MOS 0351 INDIVIDUAL EVENTS

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INFANTRY T&R MANUAL

CHAPTER 15

MOS 0351 INDIVIDUAL EVENTS

15000. PURPOSE. This chapter details the individual events that pertain to the community. These events are linked to a service-level Mission Essential Tasks (MET). This linkage tailor's individual training for the selected MET. Each individual event provides an event title, along with the conditions events will be performed under, and the standard to which the event must be performed to be successful.

15001. 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 community. This chapter contains the following community codes:

<u>Code</u>	<u>Description</u>
0351	Infantry Assaultman

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

<u>Code</u>	<u>Description</u>
APOB	Anti-Personnel Obstacle Breaching System
DEMO	Demolitions
SMAW	Shoulder-Launched Multipurpose Assault Weapon

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:

<u>Code</u>	<u>Description</u>
1000	Core Skills
2000	Core Plus Skills

15002. BILLET DESCRIPTIONS/CORE CAPABILITIES

CAREER PROGRESSION PHILOSOPHY. Upon completion of Level 1000 training at the Infantry Assaultman Course, Infantry Training Battalion, School of Infantry, the Assaultman will conduct sustainment training on the SMAW and demolitions in an infantry battalion. Prior to assuming the duties of squad/section leader, the Assaultman should complete Level 2000 training by attending the Advanced Assaultman Course, Advanced Infantry Training Battalion, School of Infantry.

BILLET: Assistant Gunner, Assault Section, Weapons Platoon. The Assistant Gunner carries out orders from the Gunner. He is responsible for the loading of the SMAW, spotting round impact and corrections for the Gunner, and

security for the assault squad. He is also trained in the MK-153 SMAW, APOBS (knowledge of), and demolitions. His rank is Private thru Lance Corporal. His T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carries out the orders of the assault Team Leader.
2. Performs the tasks required of an Assistant Gunner in the assault section of a weapons platoon and have the ability to perform the duties/tasks required of the Gunner.
3. Performs operator maintenance for and operates a MK153 SMAW.
4. Constructs, emplaces, and detonates demolition charges.
5. Performs fire and movement as an individual and as a member of an assault team.
6. Performs all basic 0300/0351 1000 level tasks and requirements.

BILLET: Team Leader/Gunner, Assault Section, Weapons Platoon. The assault Team Leader carries out orders from the Section Leader, or the unit commander. He is responsible for the discipline, appearance, training, control, conduct, and welfare of his team at all times, as well as the condition, care, and economical use of his weapons and equipment. He is also responsible for the tactical employment, fire discipline, fire control, and maneuver of his team. He is also trained in APOBS and demolitions. His rank is a Lance Corporal. His T/O weapon is the service rifle/carbine and SMAW.

Core Capabilities:

1. Carries out the orders of the assault Squad Leader.
2. Performs the tasks required of a Team Leader/Gunner in the assault section of a weapons platoon and has the ability to perform the duties/tasks of the Squad Leader.
3. Performs operator maintenance for, and operates a MK153 SMAW.
4. Constructs, emplaces, and detonates demolition charges.
6. Performs fire and movement as an individual and as a member of an assault team.
7. Performs all basic 0300/0351 2000 level tasks.
8. Advises the commander(s) on the capabilities and employment of the assault team.

BILLET: Squad Leader/Team Leader/Gunner, Assault Section, Weapons Platoon. The assault Squad Leader carries out orders from the Section Leader, or the unit commander. He is responsible for the discipline, appearance, training, control, conduct, and welfare of his squad at all times, as well as the condition, care, and economical use of his weapons and equipment. He is also responsible for the tactical employment, fire discipline, fire control, and maneuver of his squad. He is also trained in APOBS and advanced demolitions. His rank is a Corporal. His T/O weapon is the service rifle/carbine and SMAW.

Core Capabilities:

1. Carries out the orders of the assault Section Leader.
2. Performs the tasks required of a Squad Leader in the assault section of a weapons platoon and has the ability to perform the duties/tasks of the Section Leader.
3. Maintains the condition, care, and economical use of assigned personnel, weapons, and equipment.
4. Constructs, emplaces, and detonates demolition charges.

5. Performs all 0300/0351 2000 level tasks.
6. Advises the commander(s) on the capabilities and employment of the assault squad.

BILLET: Section Leader, Assault Section, Weapons Platoon. The assault Section Leader carries out orders from the unit commander. He is responsible for the discipline, appearance, training, control, conduct, and welfare of his squads at all times, as well as the condition, care, and economical use of their weapons and equipment. He is also responsible for the tactical employment, fire discipline, fire control, and maneuver of his section. He is also trained in APOBS and advanced demolitions. His rank is a Sergeant. His T/O weapon is the Service Rifle/carbine.

Core Capabilities:

1. Carries out the orders of the weapons platoon commander.
2. Performs the tasks required of a Section Leader in the assault section of a weapons platoon.
3. Maintains the discipline, appearance, control, conduct, and welfare of his assault section.
4. Trains his assault section in the performance of tasks that support the commander(s) objectives.
5. Supervises and inspects the condition, care, and economical use of assigned weapons and equipment.
6. Controls the fire and movement of his assault section.
7. Advises the commander(s) on the capabilities and employment of the assault section.
8. Performs all 0300/0351 2000 level tasks.

15003. INDEX OF 0351 INDIVIDUAL EVENTS

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15004. 1000-LEVEL EVENTS

0351-DEMO-1001: Construct an electric initiation set

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a charge, electric blasting caps, firing wires, a test set, cap crimpers, and a blasting machine, while wearing a fighting load.

STANDARD: To prime a charge.

PERFORMANCE STEPS:

1. Test the blasting machine.
2. Maintain control of the blasting machine.
3. Test the blasting-cap test set.
4. Test the firing wire on the reels, shunted/unshunted.
5. Unspool the firing wires.
6. Retest the firing wires, shunted/unshunted.
7. Test the blasting caps.
8. Connect the series circuit.
9. Connect the firing wires.
10. Test the entire circuit.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
M023 Charge, Demolition Block M112 1-1/4	2 charges per student
M098 Cap, Blasting Electric Inert	2 blasting caps per student
M130 Cap, Blasting Electric M6	2 blasting caps per student

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event can be conducted in conjunction with any demolition construction task to serve as a required initiation set for that charge.
2. The use of inert materials enhance live fire training during practical application.

0351-DEMO-1002: Clear an electric initiation set misfire

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an unexploded dual primed charge, a test set, electric blasting caps, C4 explosives, and a blasting machine, while wearing a fighting load.

STANDARD: To ensure detonation of the charge(s).

PERFORMANCE STEPS:

1. Make another attempt to fire.

2. Use the secondary firing system.
3. Check wire connections, blasting machine, or power source terminals.
4. Disconnect the blasting machine or power source and test the blasting circuit. Check the continuity of the firing wire with a circuit tester.
5. Use another blasting machine or power source and attempt to fire the demolition again, or change operators.
6. Disconnect the blasting machine, shunt the wires, and wait 60 minutes before inspecting. (Tactical conditions may require investigation prior to the 60 minute limit)
7. Inspect the entire circuit for wire breaks or short circuits.
8. If you suspect an electric blasting cap is the problem, do not attempt to remove or handle it. Place a dual primed, 1-pound charge within 1 foot of the misfired charge or a 2-pound dual primed charge within 1 foot of the misfired tamped charge.
9. Detonate new charge.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
M023 Charge, Demolition Block M112 1-1/4	2 charges per student
M130 Cap, Blasting Electric M6	2 blasting caps per student

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Do not attempt to remove or handle an electric blasting cap if you suspect it is the problem.

0351-DEMO-1003: Construct a non-electric initiation set

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a charge, non-electric blasting caps, time fuse, fuse igniters, and cap crimpers, while wearing a fighting load.

STANDARD: To prime a charge.

PERFORMANCE STEPS:

1. Test the time fuse.
2. Prepare the time fuse.
3. Attach the fuse igniter.
4. Install the primer adapter.

5. Crimp the blasting cap.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
M032 Charge, Demolition Block TNT 1-Pound	2 charges per student
M131 Cap, Blasting Non-Electric M7	2 blasting caps per student
M670 Fuse, Blasting Time M700	20 FT per student
MN08 Igniter, Time Blasting Fuse w/Shock	2 igniters per student

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event can be conducted in conjunction with any demolition construction task to serve as a required initiation set for that charge.
2. When using explosive that has cap well ensure you place the M1A4 Priming adapter on the time fuse before crimping the blasting cap.

0351-DEMO-1004: Clear a non-electric initiation set misfire

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an unexploded dual primed charge, non-electric blasting caps, time fuse, fuse igniters, TNT explosive, and cap crimpers, while wearing a fighting load.

STANDARD: To ensure detonation of the charge(s).

PERFORMANCE STEPS:

1. Wait 60 minutes (Tactical conditions may require investigation prior to the 60 minute limit).
2. Place a dual primed, 1-pound charge within 1 foot of the misfired charge or a 2-pound dual primed charge within 1 foot of the misfired tamped charge.
3. Detonate the new charge.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
M032 Charge, Demolition Block TNT 1-Pound	2
M131 Cap, Blasting Non-Electric M7	2 blasting caps per student
M670 Fuse, Blasting Time M700	20 FT per student
MN08 Igniter, Time Blasting Fuse w/Shock	2

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

0351-DEMO-1005: Construct a detonation cord firing-system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a charge, detonating cord and an initiation set, while wearing a fighting load.

STANDARD: To prime a charge.

PERFORMANCE STEPS:

1. Determine line main or ring main.
2. Determine single or dual firing system.
3. Determine number of branch lines.
4. Construct initiation set(s).

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
M023 Charge, Demolition Block M112 1-1/4	2 charges per student
M131 Cap, Blasting Non-Electric M7	2 blasting caps per student
M456 Cord, Detonating PETN Type I Class E	25 FT per student
M670 Fuse, Blasting Time M700	20 FT per student
MN08 Igniter, Time Blasting Fuse w/Shock	2

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: The use of inert materials enhances live fire training during practical application.

0351-DEMO-1006: Construct a charge

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission, construction materials, explosives, and an initiation set, while wearing a fighting load.

STANDARD: To meet mission requirements.

PERFORMANCE STEPS:

1. Determine required charge for mission.
2. Determine initiation set.
3. Determine material requirements for selected charge.
4. Assemble materials.
5. Prepare initiation set.
6. Calculate net explosive weight.
7. Calculate standoff distance.
8. Document charge construction details.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. MCWP 3-17.3 MAGTF Breaching Operations
4. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
M023 Charge, Demolition Block M112 1-1/4	12 charges per student
M032 Charge, Demolition Block TNT 1-Pound	2 charges per student
M130 Cap, Blasting Electric M6	2 blasting caps per student
M131 Cap, Blasting Non-Electric M7	2 blasting caps per student
M456 Cord, Detonating PETN Type I Class E	65 FT per student
M670 Fuse, Blasting Time M700	10 FT per student
MN52 Detonator, Percussion, Non-Electric	1 detonators per student
MN08 Igniter, Time Blasting Fuse with Sho	4 igniters per student

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

OTHER SUPPORT REQUIREMENTS:

1. Blasting machine
2. Continuity tester
3. Firing wire
4. Cap crimpers
5. Engineer stakes
6. Riggers/duct tape
7. Electrical tape
8. Breacher paste
9. Breacher tape

10. Any additional material requirements support charges identified in administrative instructions.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. The ammunition listed supports the construction of one of the following charges: Doughnut Charge, Detonation Cord Linear Charge, ULI - Knot Slider Charge, Oval Charge, Water Charge, Fence Charge, Concrete Charge, Improvised Shape Charge, Grape Shot Charge, Improvised Bangalore Charge, Ribbon Cutting Charge, Saddle Cutting Charge, Diamond Cutting Charge, Timber Cutting Charge.
2. This task can be evaluated by constructing any one of the above listed charges.

0351-DEMO-1007: Detonate an electric initiated charge

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission, a constructed charge, blasting machine, firing wire, and a test set, while wearing a fighting load.

STANDARD: To meet mission requirements.

PERFORMANCE STEPS:

1. Place the charge on target.
2. Prime charge.
3. From target to detonation point, inspect firing wire for serviceability.
4. Take cover.
5. Test firing wire.
6. Connect firing wire to blasting machine.
7. On order, initiate charge.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. The use of inert materials enhance live fire training during practical application.
 2. This event is accomplished in conjunction with 0351-DEMO-1006.
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0351-DEMO-1008: Detonate a non-electrical initiated charge

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission and a constructed charge, while wearing a fighting load.

STANDARD: To meet mission requirements.

PERFORMANCE STEPS:

1. Place the charge on target.
2. Prime charge.
3. Remove safety pin from igniters.
4. On order, initiate igniters.
5. Verify ignition (audible pop/smoke).
6. Take cover.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. The use of inert materials enhance live fire training during practical application.
 2. This event is accomplished in conjunction with 0351-DEMO-1006.
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0351-DEMO-1009: Conduct mechanical breaching

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission and breaching kit, while wearing a fighting load.

STANDARD: To gain entry.

PERFORMANCE STEPS:

1. Determine breaching tool for obstacle.

2. Determine breaching method for obstacle.
3. Breach obstacle.
4. If breach fails, determine failed breach procedures.
5. Reattempt to breach obstacle.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCWP 3-17.3 MAGTF Breaching Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

OTHER SUPPORT REQUIREMENTS:

1. Free standing door assembly
2. Breaching kit

0351-SMAW-1001: Perform operator maintenance for a MK153 SMAW

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete MK153 SMAW, authorized cleaning gear, and lubricant.

STANDARD: To ensure the weapon is operational.

PERFORMANCE STEPS:

1. Clear the MK153 SMAW.
2. Disassemble the MK153 SMAW.
3. Inspect the MK153 SMAW.
4. Clean the MK153 SMAW.
5. Lubricate the MK153 SMAW.
6. Assemble the MK153 SMAW.
7. Perform a function check on the MK153 SMAW spotting rifle.
8. Perform a function check on the MK153 SMAW launcher.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
2. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)

0351-SMAW-1002: Load a MK153 SMAW

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an MK153 SMAW, an encased rocket, and a magazine of spotting rounds, while wearing a fighting load.

STANDARD: To make the weapon ready for engagement.

PERFORMANCE STEPS:

1. Clear the weapon in the safe and uncharged mode.
2. Assume a load position.
3. Inspect rocket for serviceability.
4. Remove forward end cap of rocket.
5. Insert encased rocket and rotate rocket clockwise 1/4 turn until it locks in place.
6. Insert magazine of spotting rounds.
7. Make weapon ready.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
2. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
FMPR, FOTS Multi-Purpose Round	1 rockets per student

RANGE/TRAINING AREA: Facility Code 17631 Light Antiarmor Weapons Range
Live

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilization of simulation can supplement and enhance live fire training.

0351-SMAW-1003: Perform trouble shooting procedures on a MK153 SMAW spotting rifle

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a loaded MK153 SMAW with stoppage/malfunction and wearing a fighting load.

STANDARD: To return the spotting rifle into action.

PERFORMANCE STEPS:

1. Identify stoppage or malfunction.
2. Take corrective action when rifle does not fire, as needed.
3. Take corrective action when rifle does not extract, as needed.
4. Take corrective action when projectile is lodged in barrel, as needed.

5. Take corrective action when rifle does not feed, as needed.
6. Take corrective action when rifle does not chamber, as needed.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
AX11- Cartridge, 9mm Spotting Rifle MK217	6 cartridges per student

RANGE/TRAINING AREA: Facility Code 17631 Light Antiarmor Weapons Range
Live

0351-SMAW-1004: Perform trouble shooting procedures on a MK153 SMAW launcher

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a loaded MK153 SMAW with a stoppage/malfunction and wearing a fighting load.

STANDARD: To return the launcher into action.

PERFORMANCE STEPS:

1. Wait 15 seconds to ensure delayed firing does not occur. Keep the aim point on the target while waiting.
2. Release the launch lever and trigger and set the safety lever to SAFE.
3. Reset the charge lever to CHARGE.
4. Place the safety lever to FIRE.
5. Reestablish the aim point, depress the launch lever, and squeeze the trigger.
6. Repeat steps 1 and 2.
7. Remove the rocket by rotating it counterclockwise and pulling it rearward out of the launcher.
8. With rocket removed, rotate it one half turn and re-mate it.
9. Attempt a third engagement.
10. If rocket fired, continue the mission, if the rocket did not fire, repeat step 1.
11. Repeat step 2, and remove the rocket and immediately replace the forward end cap, lay the rocket on the ground away from the firing position, keeping the projectile pointed towards the target.
12. Obtain a second rocket and continue the mission.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
FMPR, FOTS Multi-Purpose Round	2 rockets per student

RANGE/TRAINING AREA: Facility Code 17631 Light Antiarmor Weapons Range
Live

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Expenditure of ammunition is not required to perform this task to standard.
2. Utilization of simulation can supplement and enhance live fire training.
3. If the second rocket fires, the first rocket is a dud, notify EOD.
4. If the second rocket fails to fire, return launcher to unit armory.

0351-SMAW-1005: Field zero a day optic to a MK153 SMAW

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an MK153 SMAW, a day optical device, a target, and a magazine of spotting rounds, while wearing a fighting load.

STANDARD: To achieve point of aim/point of impact.

PERFORMANCE STEPS:

1. Mount the day optic to the MK153.
2. Prepare the MK153 SMAW spotting rifle for firing.
3. Assume a firing position.
4. Fire the spotting rifle at sight specific range.
5. Adjust the day optic to the point of impact.
6. Repeat steps 4 and 5 until point-of-aim is point of impact.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
2. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
AX11 Cartridge, 9mm Spotting Rifle MK212	12 cartridges per student

RANGE/TRAINING AREA: Facility Code 17631 Light Antiarmor Weapons Range
Live

0351-SMAW-1006: Engage a target with a MK153 SMAW using a day optical device

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete, bore-sighted MK153 SMAW loaded with a rocket and a magazine of spotting rounds, a stationary or moving target at an unknown range, while wearing a fighting load.

STANDARD: To achieve a hit on the target.

PERFORMANCE STEPS:

1. Select a firing site clear of obstructions and with a clear back-blast area.
2. Assume a firing position.
3. Acquire a target using a day optic.
4. Place estimated range to target on inner drum.
5. Select rocket type on the outer selector drum.
6. Ensure the temperature on the outer selector drum is set.
7. Ready weapon for firing.
8. Fire the spotting round.
9. Observe tracer impact and adjusts aiming point on target.
10. Ensure sight adjustments have been made in order to re-acquire the target using the same aiming point identified earlier.
11. Clear the back-blast area by physically observing the area behind the launcher and sounding off with "back-blast area all secure."
12. Verbally state "Rocket".
13. Launch rocket.
14. Clear spotting rifle.
15. Clear launch tube.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
2. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
FMPR, FOTS Multi-Purpose Round	1 rockets per student

RANGE/TRAINING AREA: Facility Code 17631 Light Antiarmor Weapons Range
Live

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilization of simulation can enhance live fire training.

0351-SMAW-1007: Field zero a night aiming device to a MK153 SMAW

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a MK153 SMAW, a night aiming device, a target, and a magazine of spotting rounds, while wearing a fighting load.

STANDARD: To achieve point of aim/point of impact.

PERFORMANCE STEPS:

1. Mount the night aiming device to the MK153.
2. Prepare the MK153 SMAW spotting rifle for firing.
3. Assume a firing position.
4. Fire the spotting rifle at sight specific range.
5. Adjust the night aiming device to the point of impact.
6. Repeat steps 4 and 5 until point-of-aim is point of impact.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
2. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)
3. TM 10271A-23&P/2 AN/PVS-14 Monocular Night Vision Device
4. TM 10271A-OR/1B AN/PVS-14 Monocular Night Vision Device
5. TM 10796-OR AN/PVS-17B and AN/PVS-17C Miniature Night Sight (MNS)
6. TM 11407A-OI Mini Integrated Pointer Illuminator Module (MIPIIM) AN/PEQ-16A

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
AX11 Cartridge, 9mm Spotting Rifle MK212	12

RANGE/TRAINING AREA: Facility Code 17631 Light Antiarmor Weapons Range
Live

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event is utilized to field zero all T/E night aiming device.

0351-SMAW-1008: Engage a target with a MK153 SMAW using a night aiming device

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete, bore-sighted MK153 SMAW loaded with a rocket and a magazine of spotting rounds, a mounted night aiming device, and a stationary or moving target at an unknown range, while wearing a fighting load.

STANDARD: To achieve a hit on the target.

PERFORMANCE STEPS:

1. Select a firing site clear of obstructions and with a clear back-blast area.
2. Assume a firing position.
3. Acquire a target using a night aiming device.
4. Ready weapon for firing.
5. Fire the spotting round.
6. Observe tracer impact and adjusts aiming point on target.
7. Utilize off-set aiming in order to adjust spotting rifle onto target.
8. Clear the back-blast area by physically observing the area behind the launcher and sounding off with "back-blast area all secure."
9. Verbally announce "Rocket" prior to firing.
10. Launch rocket.
11. Clear spotting rifle.
12. Clear launch tube.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
2. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)
3. TM 10271A-23&P/2 AN/PVS-14 Monocular Night Vision Device
4. TM 10271A-OR/1B AN/PVS-14 Monocular Night Vision Device
5. TM 10796-OR AN/PVS-17B and AN/PVS-17C Miniature Night Sight (MNS)
6. TM 11407A-OI Mini Integrated Pointer Illuminator Module (MIPIM) AN/PEQ-16A

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
AX11, Cartridge, 9mm Spotting Rifle MK217	6 rounds per Marine
FMPR, FOTS Multi-Purpose Round	2 rockets per Marine
FWBR, FOTS Wall Breaching Round	2 rockets per Marine
FPTR, FOTS Practice Training Round	1

RANGE/TRAINING AREA: Facility Code 17631 Light Antiarmor Weapons Range
Live

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Utilization of simulation can enhance live fire training.
2. This event is designed to engage target with all T/E night aiming device.

0351-SMAW-1009: Prepare an anti-armor range card

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a designated location, sector of fire, DA Form 5517-R, and a lensatic compass.

STANDARD: To graphically depict a sector of fire.

PERFORMANCE STEPS:

1. Illustrate hot or firing position with correct weapon symbol and a six-digit grid.
2. Illustrate a known point and label back azimuth and distance from the known point to the weapon position.
3. Illustrate left and right lateral limits and label azimuth.
4. Illustrate minimum and maximum engagement lines and label distance.
5. Illustrate anticipated target engagement area, and label it as ATEA.
6. Illustrate target reference points and label azimuth and distance.
7. Illustrate dead space.
8. Illustrate magnetic north.
9. Label marginal data with unit, type of position, date, and time.
10. Make a duplicate.

REFERENCES:

1. FM 3-21.91 Tactical Employment of Anti-armor Platoons, Companies and Battalions
2. MCRP 5-12A Operational Terms and Graphics
3. MCWP 3-15.5 Anti-armor Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17411 Maneuver/Training Area, Amphibious Forces

0351-SMAW-1010: Bore sight a MK153 SMAW

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

BILLETS: Assaultman, Squad Leader, Team Leader

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete MK153 SMAW, as a member of a team, and a MK145 Mod 0 tool-kit/ bore-sight fixture.

STANDARD: To ensure point of aim/point of impact.

PERFORMANCE STEPS:

1. Place plotting board 25 meters away.
2. Secure weapon to tripod.
3. Insert the 83mm bore sight adapter.

4. Insert the 90 degree bore sight tool into the adapter.
5. Set outer drum to HE and set the inner drum to the zero range.
6. Look through the sight and align the vertical scope reticle line to the roll check line on the plotting board by adjusting the lock knob and thumb screws.
7. Adjust the T&E mechanism up and down in order to superimpose the 90 degree tool cross hairs over the launcher aim point on the plotting board.
8. Look through the sight and adjust the azimuth and elevation screws until cross hairs are superimposed on the plotting board aim sight.
9. Reconfirm all aim points and repeat steps as necessary.
10. Insert 9mm bore sight adapter into the spotting rifle.
11. Insert the 90 degree bore sight adapter into the adapter.
12. Sight through the adapter and adjust the elevation and azimuth screws of the sight until adapter aim point is superimposed on the plotting board.
13. Using wrenches adjust the spotting rifle set screws to align the cross hairs to the bore sight aiming point on the plotting board.
14. Once aiming points are aligned, tighten set screws on the spotting rifle.
15. Adjust the front open sight by inserting the front sight adjusting tool and manipulate the sight for elevation.
16. Adjust the front open sight for lateral adjustments by inserting the screw driver and manipulate the sight for direction.
17. Confirm the open sight aiming point corresponds with the launcher aiming point on the plotting board.

REFERENCES:

1. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)
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15005. 2000-LEVEL EVENTS

0351-APOB-2001: Inspect Anti-Personnel Obstacle Breaching System (APOBS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: In a field environment, during daylight or darkness, given an APOBS and appropriate cleaning material.

STANDARD: To ensure the APOBS is free of dirt, water, contaminates, and defects.

PERFORMANCE STEPS:

1. Observe all warnings and caution.
2. Inspect shipping and storage container.
3. Inspect components of backpacks.
4. Inspect components of softpack.
5. Inspect serviceability of ancillary equipment.
6. Report discrepancies.

REFERENCES:

1. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This task can be trained using inert APOBS.

0351-APOB-2003: Breach an anti-personnel mine with an APOBS using the delay mode initiation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a field environment, during daylight or darkness, while operating as a gunner, anti-personnel mines up to 45 meters in depth, and an APOBS.

STANDARD: To create a footpath lane through obstacle.

PERFORMANCE STEPS:

1. Observe all warnings and cautions.
2. Prepare the APOBS for field transport.
3. Prepare the APOBS for deployment.
4. Select a firing position.
5. Assemble the APOBS for delay mode initiation.
6. Correctly aim the APOBS rocket.
7. Confirm correct assembly.
8. Initiate delay-mode firing of the APOBS.
9. Immediately move to minimum safe separation distance.
10. Take immediate action if misfire occurs.
11. Upon successful deployment, destroy residual energetic materials.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
MN79 Mine, Antipersonnel Obstacle Breachi	1

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. All performance steps leading to step 8 can be trained using inert

materials.

2. Ammunition requirements for the task are listed for each period of instruction or class taught. They are not specific to an individual Marine.

0351-APOB-2004: Breach a wire obstacle with an APOBS using the delay mode initiation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a field environment, during daylight or darkness, while operating as a gunner, wire obstacles up to 45 meters in depth, and an APOBS.

STANDARD: To create a footpath lane through obstacle.

PERFORMANCE STEPS:

1. Observe all warnings and cautions.
2. Prepare the APOBS for field transport.
3. Prepare the APOBS for deployment.
4. Select a firing position.
5. Assemble the APOBS for delay mode initiation.
6. Correctly aim the APOBS rocket.
7. Confirm correct assembly.
8. Initiate delay-mode firing of the APOBS.
9. Immediately move to minimum safe separation distance.
10. Take immediate action if misfire occurs.
11. Upon successful deployment, destroy residual energetic materials.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
MN79 Mine, Antipersonnel Obstacle Breachi	1

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. All performance steps leading to step 8 can be trained using inert materials.
2. Ammunition requirements for the task are listed for each period of instruction or class taught; they are not specific to an individual Marine.

0351-APOB-2005: Breach a wire obstacle with the APOBS using the electrical command mode initiation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a field environment, while operating as a gunner, during daylight or darkness, wire obstacles up to 45 meters in depth, APOBS, required ancillary demolitions equipment and in an area free of electrical storms and static electricity.

STANDARD: To create a footpath lane through obstacle.

PERFORMANCE STEPS:

1. Observe all warnings and cautions.
2. Prepare the APOBS for field transport.
3. Prepare the APOBS for deployment.
4. Select a firing position.
5. Assemble the APOBS.
6. Test the blasting machine.
7. Test the firing wire.
8. Assemble the APOBS for command mode initiation.
9. Confirm correct assembly.
10. Correctly aim the APOBS rocket.
11. Move to minimum safe separation distance.
12. Fire the APOBS.
13. Take immediate action if misfire occurs.
14. Upon successful deployment, destroy residual energetic materials.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
MN79 Mine, Antipersonnel Obstacle Breachi	1

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

EQUIPMENT:

1. Blasting machine
2. Continuity tester
3. Firing wire
4. M2 cap crimpers

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. All performance steps leading to step 8 can be trained using inert

materials.

2. Ammunition requirements for the task are listed for each period of instruction or class taught. They are not specific to an individual Marine.

0351-APOB-2006: Breach an anti-personnel mine with the APOBS using the electrical command mode initiation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a field environment, while operating as a gunner, during daylight or darkness, anti-personnel mines up to 45 meters in depth, APOBS, required ancillary demolitions equipment and in an area free of electrical storms and static electricity.

STANDARD: To create a footpath lane through obstacle.

PERFORMANCE STEPS:

1. Observe all warnings and cautions.
2. Prepare the APOBS for field transport.
3. Prepare the APOBS for deployment.
4. Select a firing position.
5. Assemble the APOBS.
6. Test the blasting machine.
7. Test the firing wire.
8. Assemble the APOBS for command mode initiation.
9. Confirm correct assembly.
10. Correctly aim the APOBS rocket.
11. Move to minimum safe separation distance.
12. Fire the APOBS.
13. Take immediate action if misfire occurs.
14. Upon successful deployment, destroy residual energetic materials.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
MN79 Mine, Antipersonnel Obstacle Breachi	1

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

EQUIPMENT:

1. Blasting machine
2. Continuity tester

3. Firing wire
4. M2 cap crimpers

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. All performance steps leading to step 8 can be trained using inert materials.
 2. Ammunition requirements for the task are listed for each period of instruction or class taught. They are not specific to an individual Marine.
 3. This task should be conducted only after training by an SNCO/Officer or a school trained NCO. Local range/safety orders apply.
-

0351-APOB-2007: Breach an anti-personnel mine with the APOBS using the non-electrical command mode initiation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a field environment, while operating as a gunner, during daylight or darkness, anti-personnel mines up to 45 meters in depth, APOBS, required ancillary demolitions equipment and in an area free of electrical storms and static electricity.

STANDARD: To create a footpath lane through obstacle.

PERFORMANCE STEPS:

1. Observe all warnings and cautions.
2. Prepare the APOBS for field transport.
3. Prepare the APOBS for deployment.
4. Select a firing position.
5. Assemble the APOBS.
6. Assemble the APOBS for non-electrical command mode initiation.
7. Confirm correct assembly.
8. Correctly aim the APOBS rocket.
9. Move to minimum safe separation distance.
10. Fire the APOBS.
11. Take immediate action if misfire occurs.
12. Upon successful deployment, destroy residual energetic materials.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

ORDNANCE :

<u>DODIC</u>	<u>Quantity</u>
MN79 Mine, Antipersonnel Obstacle Breachi	1

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. All performance steps leading to step 10 can be trained using inert materials.
2. Ammunition requirements for the task are listed for each period of instruction or class taught. They are not specific to an individual Marine.
3. This task should be conducted only after training by a SNCO/Officer or a school trained NCO. Local range/safety orders apply.

0351-APOB-2008: Breach an obstacle with the MK7 APOBS using the non-electrical command mode initiation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a field environment, while operating as a gunner, during daylight or darkness, wire obstacles up to 45 meters in depth, APOBS, required ancillary demolitions equipment and in an area free of electrical storms and static electricity.

STANDARD: To create a footpath lane through obstacle.

PERFORMANCE STEPS:

1. Observe all warnings and cautions.
2. Prepare the APOBS for field transport.
3. Prepare the APOBS for deployment.
4. Select a firing position.
5. Assemble the APOBS.
6. Assemble the APOBS for non-electrical command mode initiation.
7. Confirm correct assembly.
8. Correctly aim the APOBS rocket.
9. Move to minimum safe separation distance.
10. Fire the APOBS.
11. Take immediate action if misfire occurs.
12. Upon successful deployment, destroy residual energetic materials.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
MN79 Mine, Antipersonnel Obstacle Breachi	1

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. All performance steps leading to step 10 can be trained using inert materials.
2. Ammunition requirements for the task are listed for each period of instruction or class taught. They are not specific to an individual Marine.
3. This task should be conducted only after training by a SNCO/Officer or a school trained NCO. Local range/safety orders apply.

0351-APOB-2009: Recover an Anti-Personnel Obstacle Breaching System (APOBS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an APOBS, during daylight or darkness, while operating as a member in a gun team.

STANDARD: To return an APOBS to transport mode.

PERFORMANCE STEPS:

1. Re-insert safety pins and blast guards.
2. Break connections between packs.
3. Replace materials and close packs.

REFERENCES:

1. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. All performance steps can be trained using inert materials.
2. Ammunition requirements for the task are listed for each period of instruction or class taught. They are not specific to an individual Marine.
3. This task should be conducted only after training by a SNCO/Officer or

a school trained NCO. Local range/safety orders apply.

4. Only perform recovery procedures if firing pin-pull ring is intact and rocket motor has not been initiated.

0351-APOB-2010: Perform misfire procedures for an Anti-Personnel Obstacle Breaching System (APOBS) in delay mode

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an APOBS, during daylight or darkness, while operating as a gunner.

STANDARD: To dispose of the system.

PERFORMANCE STEPS:

1. Wait 60 minutes after the proposed time of detonation.
2. Place 11b, dual initiated charge next to the closest grenade or the rear pack.

REFERENCES:

1. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

0351-APOB-2011: Perform misfire procedures for an Anti-personnel obstacle breaching system (APOBS) in command mode with good continuity

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an APOBS, during daylight or darkness, while operating as a gunner.

STANDARD: To dispose of the system.

PERFORMANCE STEPS:

1. Attempt to initiate 2 additional times.
2. Check the firing device.
3. Attempt to fire again.

4. Check circuit continuity.
5. Connect secondary blasting machine.
6. Attempt to initiate.
7. Repeat step 1.
8. Start 30 minute wait time.
9. Switch to delay mode (by commander's intent fix wire discrepancies).

REFERENCES:

1. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

0351-APOB-2012: Perform misfire procedures for an Anti-personnel obstacle breaching system (APOBS) in command mode with bad continuity

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an APOBS, during daylight or darkness, while operating as a gunner.

STANDARD: To dispose of the system.

PERFORMANCE STEPS:

1. Attempt to initiate 2 additional times.
2. Check the firing device.
3. Attempt to fire again.
4. Check circuit continuity.
5. Start 30 minute wait time.
6. Switch to delay mode (by commander's intent fix wire discrepancies).

REFERENCES:

1. TM 013750-13&P/B Operator's, Unit and Direct Support Maintenance Manual for Demolition Kit, Breaching System, Anti-Personnel Obstacle (APOBS)

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

0351-DEMO-2003: Plan the demolition of a target

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a demolition mission and an inventory of available demolition tools and materials, while wearing a fighting load.

STANDARD: To achieve commander's intent.

PERFORMANCE STEPS:

1. Determine the type and strength of target materials.
2. Determine the desired detonation effect.
3. Determine the type of hasty charge to create the desired detonation effect.
4. Determine the type of explosive needed to create the desired detonation effect.
5. Determine the placement of the charge to create the desired detonation effect.
6. Determine safety precautions necessary to detonate the charge(s) without injury to friendly personnel.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
 2. MCRP 3-17A Engineer Field Data (FM 5-34)
 3. NAVSEASWO 60-AA-MMA-010 Demolition Materials
-

0351-DEMO-2012: Employ breaching charges

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an order with a commander's intent and a requirement to employ breaching charges.

STANDARD: To accomplish the intent of the higher headquarters' order.

PERFORMANCE STEPS:

1. Conduct BAMCIS.
2. Recommend employment of the various breaching charges depending on the mission.
3. Provide technical and tactical advice to all levels.
4. Implement appropriate training.
5. Follow demolitions safety considerations.
6. Consider the characteristics/capabilities of the various breaching charges.

REFERENCES:

1. FM 5-250 Explosives and Demolitions
2. MCRP 3-17A Engineer Field Data (FM 5-34)
3. NAVSEASWO 60-AA-MMA-010 Demolition Materials

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
M023 Charge, Demolition Block M112 1-1/4	12 charges per student
M032 Charge, Demolition Block TNT 1-Pound	2 charges per student
M130 Cap, Blasting Electric M6	2 blasting caps per student
M131 Cap, Blasting Non-Electric M7	2 blasting caps per student
M456 Cord, Detonating PETN Type I Class E	65 FT per student
M670 Fuse, Blasting Time M700	10 FT per student
MN52 Detonator, Percussion, Non-Electric	1 detonators per student
MN08 Igniter, Time Blasting Fuse with Sho	4 igniters per student

RANGE/TRAINING AREA: Facility Code 17830 Light Demolition Range

OTHER SUPPORT REQUIREMENTS:

1. Blasting machine
2. Continuity tester
3. Firing wire
4. Cap crimpers
5. Engineer stakes
6. Riggers/duct tape
7. Electrical tape
8. Breacher paste
9. Breacher tape
10. Any additional material requirements support charges identified in administrative instructions.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. The ammunition listed supports the construction of one of the following charges: Doughnut Charge, Detonation Cord Linear Charge, ULI - Knot Slider Charge, Oval Charge, Water Charge, Fence Charge, Concrete Charge, Improvised Shape Charge, Grape Shot Charge, Improvised Bangalore Charge, Ribbon Cutting Charge, Saddle Cutting Charge, Diamond Cutting Charge, Timber Cutting Charge.
2. This task can be evaluated by constructing any one of the above listed charges.

0351-SMAW-2001: Inspect an SL-3 complete MK153 SMAW

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete MK153 SMAW.

STANDARD: To ensure the weapon system and all associated equipment are operational.

PERFORMANCE STEPS:

1. Inspect the weapon system.
2. Inspect the A-bag.
3. Inspect weapon log book.
4. Inspect mission essential optics.

REFERENCES:

1. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
 2. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)
-

0351-SMAW-2003: Employ the MK153 SMAW

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0351

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an order with a commander's intent and a requirement to employ the MK153 SMAW.

STANDARD: To accomplish the intent of the higher headquarters' order.

PERFORMANCE STEPS:

1. Conduct BAMCTS.
2. Consider the characteristics/capabilities of the SMAW.
3. Consider techniques of fire.
4. Consider employment in the offense and the defense.
5. Implement appropriate training.
6. Provide technical and tactical advice to all levels.
7. Advise commander on employment of the SMAW.

REFERENCES:

1. MCWP 3-11.2 w chl Marine Rifle Squad
 2. TM 08673A-10/1B Launcher, Assault Rocket 83mm (SMAW) MK153 MOD 0
 3. TM 08673A-25&P/2A Launcher, Assault Rocket 83MM (SMAW)
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INFANTRY T&R MANUAL

CHAPTER 16

MOS 0352 INDIVIDUAL EVENTS

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INFANTRY T&R MANUAL

CHAPTER 16

MOS 0352 INDIVIDUAL EVENTS

16000. PURPOSE. This chapter details the individual events that pertain to the community. These events are linked to a service-level Mission Essential Tasks (MET). This linkage tailor's individual training for the selected MET. Each individual event provides an event title, along with the conditions events will be performed under, and the standard to which the event must be performed to be successful.

16001. 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 community. This chapter contains the following community codes:

<u>Code</u>	<u>Description</u>
0352	Antitank Missileman

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

<u>Code</u>	<u>Description</u>
EMPL	Employment
HAW	Heavy Anti-Armor Weapon System
LEAD	Lead
MAW	Medium Anti-Armor Weapon System
MOBL	Mobility

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:

<u>Code</u>	<u>Description</u>
1000	Core Skills
2000	Core Plus Skills

16002. BILLET DESCRIPTIONS/CORE CAPABILITIES

CAREER PROGRESSION PHILOSOPHY. Upon completion of Level 1000 training at the Infantry Anti-tank Assault Guided Missileman Course, Infantry Training Battalion, School of Infantry, the anti-tank assault guided missileman will conduct sustainment training in an Infantry Battalion. Prior to selection to Sergeant or upon assuming the duties of Squad Leader, the anti-tank assault guided missileman should attend Level 2000 training at the Advanced Anti-armor Course, Advanced Infantry Training Battalion, School of Infantry.

BILLET: Infantry Anti-tank Guided Missileman Assistant Gunner/Driver. Infantry Anti-tank Guided Missileman carries out the orders of the Anti-tank

Squad Leader. He performs the tasks required of a Driver and Assistant TOW Gunner in the Anti-tank (TOW) Section of the anti-armor platoon. He performs operator maintenance for, and operates a heavy anti-armor weapon system. He performs operator maintenance for, and operates an M1045/46 hardback HMMWV or its equivalent. He maintains the condition, care, and economical use of his assigned weapons and equipment. His rank is a Private thru Lance Corporal. His T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carries out the orders of the Anti-tank Squad Leader.
2. Performs the tasks required of a Driver and Assistant Gunner in the Antitank (TOW) Section of the anti-armor platoon and have the ability to perform the duties/tasks required of the Gunner.
3. Performs operator maintenance for and operates a heavy anti-armor weapon system.
4. Identifies armored vehicles.
5. Performs operator maintenance for and operates an M1045/46 hardback HMMWV or its equivalent.
6. Performs fire and movement as an individual and as a member of an Antitank Squad.
7. Performs all 0300/0352 1000 level tasks.

BILLET: Infantry Anti-tank Guided Missileman TOW Gunner. Infantry Anti-tank Guided Missileman Gunner carries out the orders of the Anti-tank Squad Leader. He maintains the discipline, appearance, control, and welfare of the Anti-tank Team. He trains his Anti-tank Team in the performance of tasks that support platoon training objectives. He maintains the condition, care, and economical use of assigned personnel, weapons, and equipment. His rank is Corporal. His T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carries out the orders of the Anti-tank Squad Leader.
2. Performs the tasks required of a gunner in the Anti-armor (TOW) Section and have the ability to perform the duties/tasks required of the Squad Leader.
3. Performs operator maintenance for and operates a heavy anti-armor weapon system.
4. Identifies armored vehicles threat capabilities.
5. Manages operator maintenance for and operates an M1045/46 hardback HMMWV or its equivalent.
6. Performs fire and movement as an individual and as a member of an Antitank Squad.
7. Performs all 0300/0352 1000/2000 level tasks.

BILLET: Infantry Anti-tank Guided Missileman Squad Leader. Infantry Anti-tank Guided Missileman Squad Leader carries out the orders of the Anti-tank Guided Missileman Section Leader. He trains his Anti-tank Squad in the performance of tasks that support platoon training objective. He maintains the condition, care, and economical use of assigned weapons, and equipment. His rank is Sergeant. His T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carries out the orders of the Anti-tank Guided Missileman Section Leader.
2. Performs the tasks required of a Squad Leader in the Anti-tank (TOW)

- Section of the anti-armor platoon and have the ability to perform the duties/tasks required of the Anti-armor Section Leader.
3. Maintains the discipline, appearance, control, conduct, and welfare of his Anti-tank Squad.
 4. Trains his Anti-tank Squad in the performance of tasks that support platoon training objectives.
 5. Maintains the condition, care, and economical use of assigned weapons and equipment.
 6. Identifies armored vehicles threat capabilities.
 7. Calls for and adjusts fire.
 8. Writes and issues combat orders.
 9. Directs the employment of an anti-armor squad.
 10. Performs all 0300/0352 2000 level tasks.

BILLET: Assistant Gunner, Javelin Section, Anti-Armor Platoon. The Assistant Gunner carries out the orders of the Javelin Team Leader. He performs the tasks required of an Assistant Gunner in the Javelin section of the anti-armor platoon. He performs operator maintenance for and operates an M98A1 Javelin. He is trained in armored vehicle identification. He maintains the condition, care, and economical use of assigned weapons, vehicles, and equipment. His rank is a Lance Corporal. His T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carries out the orders of the Javelin Team Leader.
2. Performs the tasks required of an Assistant Gunner in the Javelin section of the anti-armor platoon.
3. Performs operator maintenance for and operates an M98A1 Javelin.
4. Identifies armored vehicles.
5. Performs all 0300/0352 1000 level tasks.

BILLET: Team Leader/Gunner, Javelin Section, Anti-Armor Platoon. The Javelin Team Leader carries out the orders of the Javelin Section Leader. He performs the tasks required of a Javelin Team Leader/Gunner in the Javelin section of the anti-armor platoon. He is trained in armored vehicles identification. He maintains the condition, care, and economical use of assigned personnel, weapons, vehicles, and equipment. His rank is a corporal. His T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carries out the orders of the Javelin Squad Leader.
2. Performs the tasks required of a Javelin Team Leader/Gunner in the Javelin section of the anti-armor platoon and have the ability to perform the duties/tasks required of the Javelin Squad Leader.
4. Identifies armored vehicles threat capabilities.
5. Performs all 0300/0352 1000/2000 level tasks.

BILLET: Squad Leader, Javelin Section, Anti-Armor Platoon. The Javelin Squad Leader carries out the orders of the Javelin Section Leader. He performs the tasks required of a Javelin Squad Leader in the Javelin section of the anti-armor platoon. He is trained in armored vehicle threat capabilities. He maintains the condition, care, and economical use of assigned personnel, weapons, vehicles and equipment. His rank is a Sergeant. His T/O weapon is the service rifle/carbine.

Core Capabilities:

1. Carries out the orders of the Javelin Section Leader.
2. Performs the tasks required of a Squad Leader in the Javelin section of the anti-armor platoon and have the ability to perform the duties/tasks required of the Anti-armor Section Leader.
3. Maintains the discipline, appearance, control, conduct, and welfare of his Javelin squad.
4. Trains his Javelin squad in the performance of tasks that support platoon training objectives.
5. Identifies armored vehicles threat capabilities.
6. Calls for and adjusts fires.
7. Writes and issues combat orders.
8. Controls the fire and movement of his Javelin squad.
9. Performs all 0300/0352 2000 level tasks.

16003. INDEX OF 0352 INDIVIDUAL EVENTS

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1000-LEVEL		
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HAW - HEAVY ANTI-ARMOR WEAPON SYSTEM		
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0352-MAW-1001	Perform operator maintenance for an M98A1 Javelin Command Launch Unit (CLU)	16-13
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0352-HAW-2001	Boresight the TOW weapon system	16-21
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LEAD		
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MOBILITY		
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16004. 1000-LEVEL EVENTS

0352-EMPL-1001: Prepare an anti-armor range card

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission designated location, sector of fire, DA Form 5517-R, and a lensatic compass.

STANDARD: To graphically depict a sector of fire.

PERFORMANCE STEPS:

1. Illustrate weapons position with proper weapon symbol and a six-digit grid.
2. Illustrate a known point and label back azimuth and distance from the known point to the weapon position.
3. Illustrate left and right lateral limits and label azimuth.
4. Illustrate minimum and maximum engagement lines and label distance.
5. Illustrate anticipated target engagement area, and label it as ATEA.
6. Illustrate target reference points and label azimuth and distance.
7. Illustrate dead space.
8. Illustrate magnetic north.
9. Label marginal data with unit, type of position, date, and time.
10. Make a duplicate.

REFERENCES:

1. FM 3-21.91 Tactical Employment of Anti-armor Platoons, Companies and Battalions
2. FM 3-22.34 TOW Weapon System
3. FM 3-22.37 Javelin Medium Anti-armor Weapon System
4. MCRP 5-12A Operational Terms and Graphics
5. MCWP 3-15.5 Anti-armor Operations

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17411 Maneuver/Training Area, Amphibious Forces

0352-EMPL-1002: Identify armored vehicles

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given graphic depiction of armored vehicles.

STANDARD: By NATO designator.

PERFORMANCE STEPS:

1. Determine tank or non-tank.
2. Determine absence or presence of a cupola.
3. Determine the type turret.
4. Determine absence or presence, type, and location of bore evacuator.
5. Determine location of turret.
6. Determine type of suspension.
7. Determine country of origin indicators.
8. Identify specific key features.

REFERENCES:

1. FM 100-2-3 The Soviet Army
2. MCWP 3-15.5 Anti-armor Operations
3. Jane's Book Of Armored Vehicles (Current Year)

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. DVTE (Appendix D)
2. Anti-Armor Model Kit, NSN: 6910-01-C98-6068

OTHER SUPPORT REQUIREMENTS: ROC-V

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Simulation can supplement and enhance training.

0352-EMPL-1003: Construct an anti-armor weapon system fighting position

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission, an anti-armor weapons system, an entrenching tool or pioneer gear, a direction of fire, and a designated position.

STANDARD: To provide protection from the effects of enemy fire.

PERFORMANCE STEPS:

1. Trace outline of fighting position.
2. Prepare the weapon system.
3. Clear fields of fire.
4. Dig the anti-armor weapon system firing position.
5. Emplace the weapon system.
6. Dig the alternate position.
7. Continue to improve the position.

REFERENCES:

1. FM 3-22.34 TOW Weapons System
2. FM 3-22.37 Javelin Medium Anti-armor Weapon System
3. TM 11581A-OR Operator and Organizational Maintenance Manual for M41 Saber System

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17411 Maneuver/Training Area,
Amphibious Forces

0352-HAW-1001: Perform operator maintenance on a heavy anti-armor weapon system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete heavy anti-armor weapon system and authorized cleaning gear.

STANDARD: To ensure the system is operational.

PERFORMANCE STEPS:

1. Clean weapon system.
2. Inspect weapon system.
3. Assemble weapon system.
4. Conduct system self test/checkout procedures.
5. Disassemble weapon system.

REFERENCES:

1. TM 1158A1-OR Operator and Organizational Maintenance Manual for M41A4 Saber System
 2. TM 9-1425-472-12 TOW 2 Weapon System Guided Missile System M220E4
 3. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A
-

0352-HAW-1002: Load a heavy anti-armor weapon system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a vehicle or ground mounted heavy anti-armor weapon system and an encased missile.

STANDARD: To prepare the weapon system for engagement.

PERFORMANCE STEPS:

1. Prepare the weapon system.
2. Inspect the encased missile.
3. Apply the kevlar blanket.
4. Insert encased missile into launcher.
5. Lock bridge clamp in place.

REFERENCES:

1. FM 3-22.34 TOW Weapon System
2. TM 1158A1-OR Operator and Organizational Maintenance Manual for M41A4 Saber System
3. TM 9-1425-450-12 TOW Weapon System Guided Missile System
4. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
L367 Simulator, Antitank Weapons Effect M	3 Simulator per Marine
WH03 BGM-71D-5, Guided Missile, Surface A	1

RANGE/TRAINING AREA: Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Missile simulation rounds ensure realistic loading technique.
2. This task will utilize the Missile Simulation Round (MSR ATWESS) NSN: 1440-01-559-8618, part #17643-001.
3. Live missiles are not required to accomplish this task to standard.

0352-HAW-1003: Engage a target with a heavy anti-armor weapon system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission, a vehicle or ground mounted heavy anti-armor weapon system, an encased missile, an armored vehicle target at a minimum of 300 meters, and a fire command.

STANDARD: To achieve first round effects.

PERFORMANCE STEPS:

1. Prepare the weapon system.
2. Load the missile.
3. Acquire the target.
4. Clear the back blast area.
5. Launch the missile.
6. Track the target.
7. Unload weapon system.

REFERENCES:

1. FM 3-22.34 TOW Weapon System
2. MCWP 3-15.5 Anti-armor Operations
3. TM 11581A-OR Operator and Organizational Maintenance Manual for M41 Saber System
4. TM 9-1425-450-12 TOW Weapon System Guided Missile System
5. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
L367 Simulator, Antitank Weapons Effect M	3 Simulator per Marine
WH03 BGM-71D-5, Guided Missile, Surface A	1
WH05 Guided Missile, BTM-71D-3B (TOW-1 Pr	1 missiles per Marine
WH51 Guided Missile, BGM-71H-1 (TOW Bunk	1 missiles per Marine

RANGE/TRAINING AREA: Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Inert missiles can enhance live fire training.
2. Simulation can supplement and augment training.
3. This task will utilize the Missile Simulation Round (MSR ATWESS) NSN: 1440-01-559-8618, part #17643-001.

0352-HAW-1004: Qualify with a heavy anti-armor weapon simulator system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given scenario(s), a heavy anti-armor weapon simulator system and necessary components, a simulated encased missile and a fire command.

STANDARD: To achieve 80 percent hits on target.

PERFORMANCE STEPS:

1. Prepare the weapon system.
2. Engage stationary targets.
3. Engage moving targets.
4. Engage obscured targets.

REFERENCES:

1. FM 3-22.34 TOW Weapon System
2. TM 11581A-OR Operator and Organizational Maintenance Manual for M41 Saber System
3. TM 9-1425-450-12 TOW Weapon System Guided Missile System
4. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
L367 Simulator, Antitank Weapons Effect M	10 Simulator per Marine

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This task can utilize the Missile Simulation Round (MSR ATWESS) NSN: 1440-01-559-8618, part #17643-001.
2. M220 TOW training can be accomplished to standard using the PGTS simulation system. Saber simulation can be accomplished to standard using the BST simulator.

0352-HAW-1005: Unload an unfired heavy anti-armor weapon system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a vehicle or ground mounted, loaded heavy anti-armor weapon system.

STANDARD: To ensure the launch tube is cleared.

PERFORMANCE STEPS:

1. Close the trigger protective cover.
2. Lock the weapon system in the eight degree down system.
3. Lower arming lever.
4. Raise the bridge clamp.
5. Remove the encased missile from the launch tube.
6. Replace the forward handling ring.

REFERENCES:

1. FM 3-22.34 TOW Weapon System

2. TM 1158A1-OR Operator and Organizational Maintenance Manual for M41A4 Saber System
3. TM 9-1425-450-12 TOW Weapon System Guided Missile System
4. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>		<u>Quantity</u>
WH03	BGM-71D-5, Guided Missile, Surface A	1 missiles per Marine
WH05	Guided Missile, BTM-71D-3B (TOW-1 Pr	1 missiles per Marine
WH51	Guided Missile, BGM-71H-1 (TOW Bunk	1 missiles per Marine

RANGE/TRAINING AREA: Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Missile simulation rounds ensure realistic unloading technique.
2. This task will utilize the Missile Simulation Round (MSR ATWESS) NSN: 1440-01-559-8618, part #17643-001.
3. This task should be conducted in conjunction with 0352-HAW-1103.

0352-HAW-1006: Mount a heavy anti-armor weapon system on a tactical vehicle

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete heavy anti-armor weapon system, a tactical vehicle, as the gunner in a heavy anti-armor weapon team.

STANDARD: To ensure the weapon system is operational.

PERFORMANCE STEPS:

1. Inspect the weapon system.
2. Mount the Traversing Unit (TU) to the vehicle.
3. Attach the Target Acquisition Sub-system (TAS) onto the TU.
4. Attach the position attitude determination sub-system to the TAS.
5. Mount the Fire Control Sub-system (FCS) and connect the TU coil cable.
6. Insert the launch tube into the TU.
7. Connect the vehicle mounted charger to the Lithium-ion Battery Box (LBB).
8. Connect HMMWV interface cable to the LBB and the FCS.
9. Determine if the system has power.

REFERENCES:

1. TM 11581A-OR Operator and Organizational Maintenance Manual for M41 Saber System
2. TM 9-2320-387-10 Operator Maintenance Manual for Truck; Utility: Cargo/Troop Carrier, 2-1/4 Ton, 4X4

SUPPORT REQUIREMENTS:

EQUIPMENT: M1167 or MAT-V

0352-HAW-1010: Perform immediate action for a heavy anti-armor weapon system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a heavy anti-armor weapon system with a malfunction.

STANDARD: To return the weapon system into action.

PERFORMANCE STEPS:

1. Determine malfunction type.
2. Communicate malfunction.
3. Perform misfire procedures.
4. Perform hang fire procedures.
5. Perform post-launch PA fail procedures, as necessary (M220E4 only).
6. Perform erratic missile procedures.
7. Perform dud missile procedures.

REFERENCES:

1. FM 3-22.34 TOW Weapon System
2. TM 11581A-OR Operator and Organizational Maintenance Manual for M41 Saber System
3. TM 9-1425-472-12 TOW 2 Weapon System Guided Missile System M220E4
4. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
WH03 BGM-71D-5, Guided Missile, Surface A	1
WH05 Guided Missile, BTM-71D-3B (TOW-1 Pr	1 missiles per Marine
WH51 Guided Missile, BGM-71H-1 (TOW Bunk	1 missiles per Marine

RANGE/TRAINING AREA: Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Inert missiles can enhance live fire training. This task can be trained to standard using simulation (TOW PGTS or Saber BST).

0352-MAW-1001: Perform operator maintenance for an M98A1 Javelin Command Launch Unit (CLU)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an SL-3 complete M98A1 Javelin CLU, and authorized cleaning gear.

STANDARD: To ensure the system is operational.

PERFORMANCE STEPS:

1. Inspect the CLU.
2. Clean the CLU.
3. Perform Built In Test (BIT).

REFERENCES:

1. TM 09397B-12/1 Operator and Organizational Maintenance Manual for Javelin
-

0352-MAW-1002: Prepare an M98A2 Javelin for firing

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an M98A2 Javelin CLU and a round.

STANDARD: To ensure the Javelin weapon system is ready for action.

PERFORMANCE STEPS:

1. Remove protective interface covers.
2. Inspect round.
3. Attach CLU to round.
4. Turn power switch to day or night on CLU.
5. Remove forward end cap.
6. Adjust CLU sight picture.

REFERENCES:

1. FM 3-22.37 Javelin Medium Anti-armor Weapon System
2. TM 09397B-12/1 Operator and Organizational Maintenance Manual for Javelin

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
PM93 Guided Missile, Surface Attack (Jav	1 missiles per Marine

RANGE/TRAINING AREA: Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Simulation can supplement and augment training.

0352-MAW-1003: Engage a target with an M98A2 Javelin weapon system

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mission, a M98A2 Javelin command launch unit and a round.

STANDARD: To achieve a hit on a designated target.

PERFORMANCE STEPS:

1. Select a firing position.
2. Prepare for firing.
3. Determine engagement criteria.
4. Acquire target.
5. Determine whether to use a top attack or direct attack for engagement.
6. Adjust track gates.
7. Launch missile.
8. Disconnect the launch tube assembly from the CLU, and discard expended launch tube assembly.
9. Prepare CLU for transport.

REFERENCES:

1. FM 3-22.37 Javelin Medium Anti-armor Weapon System
2. TM 09397B-12/1 Operator and Organizational Maintenance Manual for Javelin

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
PM93 Guided Missile, Surface Attack (Jav	1 missiles per Marine

RANGE/TRAINING AREA: Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Simulation can supplement and augment training.

0352-MAW-1004: Perform immediate action for an M98A2 Javelin warning/malfunction

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an M98A2 Javelin Command Launch Unit (CLU) with a loaded missile and a failure or malfunction status indicator.

STANDARD: To return the weapon system to action.

PERFORMANCE STEPS:

1. Identify warning/malfunction.
2. Communicate malfunction.
3. Perform action for a missile overheat.
4. Perform action for a command launch unit (CLU) built-in test (BIT) failure.
5. Perform action for a missile failure.
6. Perform action for a hangfire.
7. Perform action for a misfire.

REFERENCES:

1. FM 3-22.37 Javelin Medium Anti-armor Weapon System
2. TM 09397B-12/1 Operator and Organizational Maintenance Manual for Javelin

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
PM93 Guided Missile, Surface Attack (Jav	1

RANGE/TRAINING AREA: Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Simulation can supplement and enhance training.

0352-MAW-1005: Qualify with an M98A2 Javelin Enhanced Producibility Basic Skills Trainer (EPBST)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given scenario(s), Simulated Command Launch Unit (SCLU), and a missile simulation round.

STANDARD: To achieve 80 percent hits on target.

PERFORMANCE STEPS:

1. Assume a position.
2. Prepare the trainer.
3. Engage target in accordance with the mission.
4. Conduct immediate action, as required.

REFERENCES:

1. FM 3-22.37 Javelin Medium Anti-armor Weapon System
2. TM 09397A-10/3 Operator Maintenance Manual for Javelin Missile System
Basic Skills Trainer M-78

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: The Javelin gunner must achieve an 80 percent on qualification tables 1 through 10.

0352-MOBL-1001: Operate a tactical vehicle

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given references, a tactical vehicle, forms, required tools and equipment.

STANDARD: With no injury to personnel or damage to equipment.

PERFORMANCE STEPS:

1. Perform PMCS.
2. Prepare operational forms and records.
3. Start the engine.
4. Select transmission gear.
5. Select transfer case gear.
6. Operate vehicle forward.
7. Operate vehicle in reverse.
8. Comply with traffic regulations.
9. Operate vehicle with headlights.
10. Operate vehicle in blackout drive.
11. Operate vehicle with vision enhancement devices.
12. Operate vehicle with towed load.
13. Stop the vehicle.
14. Shut down the engine.
15. Complete operational forms and records.

REFERENCES:

1. TM 2320-10/6B Truck, Utility 1 1/2 Ton (HMMWV)
2. TM 9-2320-387-10 Operator Maintenance Manual for Truck; Utility:
Cargo/Troop Carrier, 2-1/4 Ton, 4X4

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. CCS (Appendix D)
2. ODS (Appendix D)

OTHER SUPPORT REQUIREMENTS:

1. M1167
2. MAT-V

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Simulation via the Operational Driver Simulator (ODS) can support 20% of the driving hour requirement.

16005. 2000-LEVEL EVENTS

0352-EMPL-2001: Control fires for an anti-armor unit

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an anti-armor weapon system, a tactical scenario and anti-armor targets.

STANDARD: To ensuring targets are destroyed.

PERFORMANCE STEPS:

1. Establish engagement area.
2. Determine target precedence.
3. Establish engagement criteria.
4. Establish method for engagement (HAW-MAW-LAW).
5. Issue fire commands. (ADDRAC)
6. Direct target engagement.
7. Assess effects on target.
8. Re-engage as necessary.
9. Displace if necessary.

REFERENCES:

1. FM 3-21.91 Tactical Employment of Anti-armor Platoons, Companies and Battalions
2. FM 3-22.34 TOW Weapon System
3. FM 3-22.37 Javelin Medium Anti-armor Weapon System
4. TM 09397B-12/1 Operator and Organizational Maintenance Manual for Javelin
5. TM 1158A1-OR Operator and Organizational Maintenance Manual for M41A4 Saber System
6. TM 9-1425-450-12 TOW Weapon System Guided Missile System
7. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A
8. TM 9-2320-387-10 Operator Maintenance Manual for Truck; Utility: Cargo/Troop Carrier, 2-1/4 Ton, 4X4

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17411 Maneuver/Training Area, Amphibious Forces
Facility Code 17640 Antiarmor Tracking And Live-Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Simulation can supplement and enhance training.

0352-EMPL-2002: Employ anti-armor weapon systems

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an anti-armor unit, a tactical scenario and anti-armor threats.

STANDARD: To achieve first round effects.

PERFORMANCE STEPS:

1. Conduct mission analysis.
2. Prepare for combat operations/PCC/PCI.
3. Plan for diversions.
4. Execute movement.
5. Occupy cold/hot firing positions.
6. Identify target by precedence.
7. Conduct far target location, as necessary.
8. Establish engagement criteria.
9. Issue fire commands. (ADDRAC)
10. Direct target engagement.
11. Improve positions, as necessary.
12. Execute screening/signal plan.
13. Determine effects on target(s).
14. Re-engage target(s), as necessary.
15. Displace units, as necessary.

REFERENCES:

1. FM 3-21.91 Tactical Employment of Anti-armor Platoons, Companies and Battalions
2. FM 3-22.34 TOW Weapon System
3. FM 3-22.37 Javelin Medium Anti-armor Weapon System
4. TM 09397B-12/1 Operator and Organizational Maintenance Manual for Javelin
5. TM 1158A1-OR Operator and Organizational Maintenance Manual for M41A4 Saber System
6. TM 9-1425-450-12 TOW Weapon System Guided Missile System
7. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A
8. TM 9-2320-387-10 Operator Maintenance Manual for Truck; Utility: Cargo/Troop Carrier, 2-1/4 Ton, 4X4

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17640 Antiarmor Tracking And Live-Fire Range
Facility Code 17411 Maneuver/Training Area, Amphibious Forces

OTHER SUPPORT REQUIREMENTS:

1. Maneuver/Training area
2. TOW PGTS
3. Javelin FTT/BST

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Simulation can supplement and enhance training.

0352-EMPL-2003: Identify armored vehicles

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a tactical scenario with armored vehicles.

STANDARD: To achieve 80 percent accuracy in identifying the vehicles capabilities/limitations/target precedence.

PERFORMANCE STEPS:

1. Identify by NATO designator.
2. Identify armament.
3. Identify capabilities.
4. Identify limitations.
5. Prioritize threats.

REFERENCES:

1. FM 100-2-3 The Soviet Army
2. MCWP 3-15.5 Anti-armor Operations
3. Jane's Book of Armored Vehicles (Current Year)

SUPPORT REQUIREMENTS:

EQUIPMENT:

1. DVTE (Appendix D)
2. Anti-Armor Model Kit, NSN: 6910-01-C98-6068

OTHER SUPPORT REQUIREMENTS: ROC-V

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Simulation can supplement and enhance training.

2. This event can be trained to officers and SNCOs that hold billets that lead Anti-Tank units.

0352-HAW-2001: Boresight the TOW weapon system

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an assembled SL-3 complete M220E4 TOW II system.

STANDARD: To ensure the thermal sight is aligned to the optical sight.

PERFORMANCE STEPS:

1. Inspect the boresight collimator.
2. Ensure the Boresight Collimator and Collimator Cable are mated to the face of the thermal sight.
3. Adjust the diopter focus ring (optical sight) in order to ensure the optical sight crosshairs are sharp and crystal clear.
4. Manipulate the Boresight Collimator Azimuth and Elevation Control Knobs in order to ensure the optical sight cross hairs are centered inside the collimator's aiming circle.
5. Unlock and manipulate the thermal sight azimuth and elevation control knobs in order to ensure the thermal sight cross hairs are centered inside the aiming circle of the Boresight Collimator.
6. Move the field of view switch on the thermal sight to "Wide" and ensure the thermal sight cross hairs are still centered on the aiming circle.
7. Ensure the optical sight cross hairs are still centered on the aiming circle.
8. Return the field of view switch to "Narrow".
9. Remove and store the Boresight Collimator and cable.

REFERENCES:

1. TM 9-1425-450-12 TOW Weapon System Guided Missile System
2. TM 9-1425-472-12 TOW 2 Weapon System Guided Missile System M220E4

0352-HAW-2002: Perform a TOW system self-test

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: PVT, PFC, LCPL, CPL

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an assembled SL-3 complete M220E4 TOW II system.

STANDARD: To determine if there is electrical connectivity between all system components.

PERFORMANCE STEPS:

1. Ensure the thermal sight's On/Off/Standby Switch is set to "ON" and that the sight is at an operational temperature.
2. Ensure the thermal sight field-of-view switch is set to "Narrow/".
3. Ensure the optical sight reticle light switch is turned "ON".
4. Ensure the bridge clamp arming lever is down and locked.
5. Ensure the diopter focus ring (optical sight) is set to +3.
6. Ensure the diopter adjustment ring (thermal sight) is set to zero (0).
7. Ensure the thermal sight course azimuth knob is set to "1" or "2" but not in between.
8. Lift the test operate switch cover and engage the test operate switch.
9. Ensure all lights on the MGS indicator display stay lit for at least three seconds.
10. Ensure the following lights show "pass" criteria: BATT PASS, MGS PASS, PA PASS, and OSS PASS.
11. Unlock and manipulate the optical sight azimuth and elevation control knobs in order to center each green dot in the middle of the azimuth and elevation cross on the MGS indicator display.
12. Ensure each "center green dot" remains in place for at least three seconds.
13. Conduct a balance and steering check in order to confirm that the azimuth and elevation cross tracks steering commands.
14. Release the test operate switch and close the switch cover.
15. Ensure day sight tracker, azimuth and elevation knob covers are closed.

REFERENCES:

1. TM 9-1425-450-12 TOW Weapon System Guided Missile System
2. TM 9-1425-472-12 TOW 2 Weapon System Guided Missile System M220E4

0352-LEAD-2001: Lead an anti-armor unit

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an anti-armor unit with all associated equipment and a mission.

STANDARD: To direct an anti-armor unit in order to achieve commander's intent.

PERFORMANCE STEPS:

1. Receive the order.
2. Conduct METT-TSL.
3. Conduct route planning/reconnaissance.
4. Determine team/squad organization.
5. Determine duties and responsibilities.
6. Develop communications plan.

7. Determine reporting procedures.
8. Conduct fire support planning.
9. Develop movement order/brief.
10. Issue order.
11. Conduct pre-combat checks and inspections (PCC/PCI).
12. Conduct rehearsals.
13. Execute the mission.
14. Conduct debrief.

REFERENCES:

1. FM 3-21.91 Tactical Employment of Anti-armor Platoons, Companies and Battalions
2. FM 3-22.34 TOW Weapon System
3. MCRP 3-11.1A Commander's Tactical Handbook
4. MCRP 5-12A Operational Terms and Graphics
5. MCWP 3-11.2 w chl Marine Rifle Squad
6. TM 09397B-12/1 Operator and Organizational Maintenance Manual for Javelin
7. TM 1158A1-OR Operator and Organizational Maintenance Manual for M41A4 Saber System
8. TM 9-1425-450-12 TOW Weapon System Guided Missile System
9. TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A
10. TM 9-2320-387-10 Operator Maintenance Manual for Truck; Utility: Cargo/Troop Carrier, 2-1/4 Ton, 4X4

SUPPORT REQUIREMENTS:

EQUIPMENT: M1167

OTHER SUPPORT REQUIREMENTS: CCS (Appendix D)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Simulation can augment training but cannot replace it.
2. This event can be trained to officers and SNCOs that hold billets that lead Anti-Tank units.

0352-MOBL-2001: Direct the employment of a motorized Anti-Armor unit

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0352

GRADES: CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a vehicle mounted anti-armor unit with all associated equipment and a tactical scenario.

STANDARD: To control Anti-Armor maneuver techniques in accordance with FM 3-21.91.

PERFORMANCE STEPS:

1. Supervise operator maintenance for tactical vehicles.

2. Maintain command and control.
3. Control traveling.
4. Control traveling overwatch.
5. Control bounding overwatch.
6. Control immediate actions.
7. Control down vehicle/recovery operations.
8. Control convoy security/escort.
9. Control link up/passage of lines.
10. Control route reconnaissance.
11. Control screening.

REFERENCES:

1. FM 3-21.91 Tactical Employment of Anti-armor Platoons, Companies and Battalions
2. TM 1158A1-OR Operator and Organizational Maintenance Manual for M41A4 Saber System
3. TM 11803A-OM Operator Manual, MATV
4. TM 9-2320-387-10 Operator Maintenance Manual for Truck; Utility: Cargo/Troop Carrier, 2-1/4 Ton, 4X4

SUPPORT REQUIREMENTS:

EQUIPMENT: M1167

OTHER SUPPORT REQUIREMENTS: CCS (Appendix D)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Simulation can augment training but cannot replace it.
 2. This event can be trained to officers and SNCOs that hold billets that lead Anti-Tank units.
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INFANTRY T&R MANUAL

CHAPTER 17

GCE INDIVIDUAL EVENTS

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INFANTRY T&R MANUAL

CHAPTER 17

GCE INDIVIDUAL EVENTS

17000. PURPOSE. This chapter details the individual events that pertain to the Ground Combat Element (GCE). These events have been designed specifically to support the Operations and Tactics Training Program (OTTP). The 2000-level events are trained to all GCE Operations Officers and Operations Chiefs during the Tactical MAGTF Integration Course (TMIC) and the Ground Operations Chief Course (GOCC). These events are linked to a service-level Mission Essential Tasks (MET). This linkage tailor's individual training for the selected MET. Each individual event provides an event title, along with the conditions events will be performed under, and the standard to which the event must be performed to be successful.

17001. 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 community. This chapter contains the following community codes:

<u>Code</u>	<u>Description</u>
GCE	GCE Operations Officer and Operations Chief

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

<u>Code</u>	<u>Description</u>
COND	Conduct
PLAN	Planning
TRNG	Training

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:

<u>Code</u>	<u>Description</u>
2000	Core Plus Skills

17002. INDEX OF GCE INDIVIDUAL EVENTS

EVENT CODE	EVENT	PAGE
2000-LEVEL		
CONDUCT		
GCE-COND-2501	Conduct the garrison functions of the operations sections	17-3
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GCE-COND-2504	Conduct deliberate planning	17-6
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GCE-PLAN-2501	Integrate Attack the Network (AtN) Framework across the ROMO	17-6
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GCE-TRNG-2507	Assess developed training and operational plans	17-15
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17003. 2000-LEVEL EVENTS

GCE-COND-2501: Conduct the garrison functions of the operations sections

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a unit, emerging technologies and references.

STANDARD: In accordance with applicable references.

PERFORMANCE STEPS:

1. Manage the mentoring program.
2. Manage OIC/RSO program.
3. Manage education programs.
4. Supervise ceremonies and special events.
5. Supervise Anti-Terrorism/Force Protection (AT/FP) program.
6. Manage files, directives and publications.
7. Manage the operations section Consolidated Memorandum Receipt (CMR).
8. Manage the operations section budget.
9. Manage Commanding Generals Inspection Program (CGIP).
10. Manage Body Composition Program (BCP).

REFERENCES:

1. MCO 1500.58 Marine Corps Mentoring Program (MCMP)
 2. MCO 3500.27_ Operational Risk Management (ORM)
 3. MCO 3570.1B Range Safety (Jun 03)
 4. MCO 5215.1K Marine Corps Directives Management Program (May 07)
 5. MCO 6100.13 w/ch 1 Marine Corps Physical Fitness Program
 6. NAVMC 2771 Marine Corps Formal School Catalog
 7. NAVMC 2927 Antiterrorism/Force Protection Campaign Plan
-

GCE-COND-2502: Conduct Command Operation Center (COC) operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all the elements of a Ground Combat Operations Center operating within a MAGTG/Joint/Combined/Interagency environment, necessary resources, higher headquarters order, commanders guidance and reference.

STANDARD: Integrate systems, personnel and processes to efficiently command and control ground combat operations.

PERFORMANCE STEPS:

1. Supervise the emplacement and displacement of the command operations center.
2. Supervise layout, integration of systems and information exchange requirements throughout the command operations center to support integrated staff operations.
3. Establish the training of watch section personnel.
4. Manage and supervise the operations of a command operations center.
5. Organize C4ISR assets in the command operations center.
6. Maintain communications with higher, adjacent, supporting units and organizations.
7. Implement the information management plan.
8. Ensure the Common Tactical Picture (CTP) is maintained.
9. Supervise the accuracy and timely submission of messages and reports.
10. Assist in the preparation of products in support of operations.
11. Conduct battle rhythm.
12. Affect command and control within authority.
13. Transition control of operations to the appropriate echelon.
14. Synchronize intelligence, fires, maneuver, and logistics to achieve combined arms effects against the threat.
15. Establish, evaluate and manage force protection posture as situation dictates (MOPP, Air Defense, ROE, and Readiness Conditions/Alert Status).
16. Conduct contingency response, QRF response, or commit the reserve.

REFERENCES:

1. FM 3-0 Operations
2. MCWP 3-1 Ground Combat Operations

3. MCWP 3-10 Tactics
4. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
5. MCWP 5-1 Marine Corps Planning Process (MCPPE)

GCE-COND-2503: Coordinate fire support

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: This event covers the four fire support tasks: 1. Integrate fires with the scheme of maneuver. 2. Support forces in contact. 3. Support the Commanders concept of operation. 4. Sustaining fire support.

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all elements of a Ground Combat Element Fire Support Coordination Center (FSCC) operating within a MAGTF/Joint/Combined/Interagency environment, necessary resources, higher headquarters order, commander's guidance and references

STANDARD: In accordance with the four fire support tasks.

PERFORMANCE STEPS:

1. Review fire plans to ensure they can be implemented with the fire support means available.
2. Ensure the Common Tactical Picture (CTP) and necessary operational records of the FSCC are maintained.
3. Disseminate the necessary information collected at the FSCC to all applicable units.
4. Receive and disseminates available target information to all staff sections and commands requiring target information.
5. Recommend approval, modification, or denial of requests for fire support.
6. Assist in deconfliction and integration of air and surface delivered fires.
7. Supervise the coordination of cross boundary coordination with adjacent or higher units FSCC.
8. Coordinate integration of ISR.
9. Manage the flow of information in the FSCC.
10. Adjust fires based on the scheme of maneuver and/or change of priorities.
11. Coordinate the movement of organic and direct support ground assets.
12. Maintain a record of targets fired on, Battle Damage Assessment (BDA), and targets not engaged.
13. Displace the FSCC by echelon while maintaining continuity of operations and control of fires.
14. Coordinate and integrate subordinate elements fire support plans.
15. Report BDA to higher headquarters.
16. Supervise the performance of those assigned to operate in the FSCC.

REFERENCES:

1. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
-

GCE-COND-2504: Conduct deliberate planning

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: As a member of a Ground Combat Element planning staff operating within a MAGTF/Joint/Combined/Interagency environment, higher headquarters order, commander's guidance and references.

STANDARD: To support the accomplishment of the mission.

PERFORMANCE STEPS:

1. Conduct problem framing.
2. Develop courses of action.
3. Wargame courses of action.
4. Present courses of action and wargame products for Commanders comparison and decision.
5. Develop order.
6. Ensure order transition.
7. Conduct assessment throughout the process.

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)

GCE-PLAN-2501: Integrate Attack the Network (AtN) Framework across the ROMO

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0302, 0303, 0802, 1302, 1802, 1803

BILLETS: Operations Officer

GRADES: MAJ, LTCOL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given Higher Headquarters operations order, Commanders Guidance, Commanders Battle space Area Evaluation (CBAE), battle staff, Unit TO&E, functional communications architecture and integrated C2 systems.

STANDARD: To neutralize the threat networks.

PERFORMANCE STEPS:

1. Incorporate Attack the Network into the planning process.
2. Identify the characteristics of the Operational Environment.
3. Identify the networks.
4. Integrate Joint, Interagency, Intergovernmental, Multinational (JIIM) and non governmental agency support.

5. Synchronize intelligence and targeting effects.
6. Conduct assessment.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Tools (information models) used to identify the characteristics of the operating environment are DIME (strategic), PMESII-PT (Operational level), METT-T (Tactical), ASCOPE (Tactical) Interagency, Intergovernmental, Non-Governmental agencies (NGOs), HASS, could include host nation military if required Networks/cells covers red, white, blue.

GCE-PLAN-2502: Apply the six warfighting functions

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: This event covers the application of the six warfighting functions within the 5 core METS; offense, defense, urban, amphibious, and stability operations.

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: As a member of a Ground Combat Element planning staff operating within a MAGTF/Joint/Combined/Interagency environment, higher headquarters order, commander's guidance and references.

STANDARD: To achieve the desired effects in support of the mission.

PERFORMANCE STEPS:

1. To achieve the desired effects in support of the mission.
2. Integrate intelligence into ground combat operations.
3. Integrate fires and effects into ground combat operations.
4. Integrate logistics into ground combat operations.
5. Exercise Command and Control in support of ground combat operations.
6. Integrate Force Protection in support of ground combat operations.

REFERENCES:

1. FM 3-06 Urban Operations
 2. FM 3-07 Stability Operations (2008)
 3. MCDP 1 Warfighting
 4. MCDP 1-0 Marine Corps Operations, Sep 2001
 5. MCDP 2 Intelligence
 6. MCDP 4 Logistics
 7. MCDP 5 Planning
 8. MCDP 6 Command and Control
 9. MCWP 3-1 Ground Combat Operations
 10. MCWP 3-10 Tactics
-

GCE-PLAN-2503: Develop a fire support plan

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: This event covers the four fire support tasks: 1. Integrate fires with the scheme of maneuver. 2. Support forces in contact. 3. Support the Commanders concept of operation. 4. Sustaining fire support.

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all elements of a Ground Combat Element Fire Support Coordination Center (FSCC) operating within a MAGTF/Joint/Combined/ Interagency environment, necessary resources, higher headquarters order, commander's guidance and references.

STANDARD: In accordance with the four fire support tasks.

PERFORMANCE STEPS:

1. Conduct the D3A process.
2. Review available intelligence and assess current situation.
3. Identify available fire support assets.
4. Assist in the development of ESFTs.
5. Define intelligence collection requirements to support the fires.
6. Recommend priorities of fires, allocation of assets, and position of organic assets.
7. Recommend priority targets and plans to shift as the operation develops.
8. Assist in the development of Fire Support Coordination Measures (FSCMs).
9. Coordinate the establishment of Airspace Control Measures (ACMs).
10. Assist in the development of the fire support products.
11. Ensure coordination with fire support agencies in the development of overall fire support requirements.
12. Plan for the echelon of the FSCC.
13. Disseminate the fire support plan.
14. Conduct required fire support synchronization and rehearsal with fire support agencies (CAR/ROC).

REFERENCES:

1. FM 6-20-30 Fire Support for Corps and Divisions
2. FM 6-20-40 Fire Support for Brigade Operations (Heavy)
3. FM 6-20-50 Fire Support for Brigade Operations (Light)
4. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
5. MCWP 3-16.2 Procedures for the Marine Corps Fire Support
6. MCWP 3-16C Tactics, Techniques, and Procedures for the Targeting Process
7. MCWP 3-42.1 Fire Support in MAGTF Operations

GCE-PLAN-2504: Coordinate the actions of the Operational Planning Team (OPT)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: Boards, Bureaus, Cells, Committees, and Working Groups (B2C2WG).

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: As a member of a Ground Combat Element planning staff operating within a MAGTF/Joint/Combined/Interagency environment, higher headquarters order, commander's guidance and references.

STANDARD: To support the accomplishment of the mission and Commanders guidance.

PERFORMANCE STEPS:

1. Determine the type of planning team.
2. Determine composition, roles, and responsibilities of OPT members.
3. Review Commanders Battlespace Area Evaluation (CBAE).
4. Ensure development/review/update of Intelligence Preparation of the Battlefield (IPB).
5. Ensure warfighting functions and/or lines of operation plans are organized into the Commanders single battle effort.
6. Ensure planning and execution assessment measures and mechanisms are developed.
7. Ensure information management procedures are incorporated throughout the plan.

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)
-

GCE-PLAN-2505: Develop plans to execute across the Range of Military Operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 24 months

DESCRIPTION: Using a defined planning process, incorporating all relevant organizations and actors, support observations and orientations to identify problems and/or assigned missions, and their solutions within long, mid, and short range time spans.

MOS PERFORMING: 0302, 0303, 0802, 1302, 1802, 1803

BILLETS: Operations Officer

GRADES: MAJ, LTCOL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an identified problem or assigned mission, elements of a Ground Combat Element operating in the contemporary environment within a MAGTF/Joint/Multi-National/Interagency Command and Control architecture,

necessary resources, higher headquarters order, commanders guidance and intent, and references.

STANDARD: Plans developed accomplish the commander's intent and/or solves the identified problem.

PERFORMANCE STEPS:

1. Receive Commanders Orientation.
2. Determine time available.
3. Determine planning methodology (tools and resources).
4. Form planning team.
5. Refine/develop planning tools ISO team capabilities, planning methodology and time available.
6. Frame the problem.
7. Develop mission statement.
8. Develop problem solution(s) (COA(s)).
9. Determine Task Organization, C2 relationships (internal and external), tasks, assigned battlespace and resources.
10. Refine the solution. (Wargaming)
11. Determine the best solution. (COA Comparison & Decision)
12. Refine the plan. (Orders Development)
13. Develop necessary coordination mechanisms (Orders Development).
14. Determine assessment methodology that validates COA solves identified problem or assigned mission during execution. (Orders Dev and Assessment)
15. Crosswalk developed plans internally.
16. Reconcile developed plans with higher, adjacent and supporting/supported organizations.
17. Determine necessary preparations required. (Orders Dev and Transition)
18. Develop necessary branches and sequels.
19. Issue the order and necessary briefs. (Transition)

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Planning methodology must achieve the necessary level of creativity and/or efficiency to properly frame and solve the problem within available resource constraints.

GCE-TRNG-2501: Develop a unit exercise

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an approved Mission Essential Task List (METL), commanders training guidance.

STANDARD: That ensures the unit achieves METL proficiency.

PERFORMANCE STEPS:

1. Identify collective and individual training events from applicable T&R manuals.
2. Identify live, virtual, constructive training venues.
3. Develop a scheme of maneuver.
4. Develop opposing force plan.
5. Develop training assessment plan.
6. Develop After Action Review Plan.
7. Identify resource requirements.

REFERENCES:

1. MCO 1553.3A Unit Training Management (UTM)
2. MCRP 3-0A Unit Training Management Guide
3. MCRP 3-0B How to Conduct Training

GCE-TRNG-2502: Develop a mid-range training plan

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

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an approved Mission Essential Task List (METL), mission statement, higher headquarters long range training plan, commander's unit assessment, and commanders training guidance.

STANDARD: That ensures the unit achieves METL proficiency.

PERFORMANCE STEPS:

1. Review the METL.
2. Review commanders training guidance.
3. Review commanders training assessment.
4. Review higher headquarters long range training plan.
5. Review previous training plans.
6. Coordinate with higher, adjacent and subordinate units.
7. Create the mid range training plan.
8. Disseminate the mid range training plan.

REFERENCES:

1. MCO 1553.3A Unit Training Management (UTM)
2. MCRP 3-0A Unit Training Management Guide
3. MCRP 3-0B How to Conduct Training

GCE-TRNG-2503: Manage Unit Readiness Program (URP)

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

MOS PERFORMING: 0369

BILLETS: Operations Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a mid-range training plan and emerging technologies.

STANDARD: In order to achieve Mission Essential Task List (METL) proficiency.

PERFORMANCE STEPS:

1. Manage the Training Exercise and Employment Plan (TEEP).
2. Manage readiness reporting.
3. Manage annual training requirements.
4. Manage Professional Military Education (PME) training requirements.
5. Manage ancillary training requirements.
6. Manage mission essential training requirements.

REFERENCES:

1. MCO 1553.3A Unit Training Management (UTM)
2. MCRP 3-01A Rifle Marksmanship
3. MCRP 3-01B Pistol Marksmanship
4. MCRP 3-02A Marine Physical Readiness Training for Combat
5. MCRP 3-02G First Aid
6. MCRP 3-0A Unit Training Management Guide
7. MCRP 3-0B How to Conduct Training

GCE-TRNG-2504: Execute plans across the Range of Military Operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 24 months

DESCRIPTION: With developed plans and having conducted necessary preparations, conduct offensive, defensive, stability and support operations in coordination with all relevant organizations and actors.

MOS PERFORMING: 0302, 0303, 0802, 1302, 1802, 1803

GRADES: MAJ, LTCOL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given developed plans, all elements of a Ground Combat Element operating in the contemporary environment within a MAGTF/Joint/Multi-National/Interagency Command and Control architecture, necessary resources, higher headquarters order, commanders guidance and references.

STANDARD: Accomplish the mission in accordance with commander's intent.

PERFORMANCE STEPS:

1. Control the unit.
2. Implement Commanders orders, guidance and decisions.
3. Synchronize the warfighting functions and available resources throughout

- execution.
4. Coordinate the actions of the Battle-Staff throughout the COC echelons.
 5. Coordinate with Higher, Adjacent, Supporting/Supported, and as necessary Joint, Multi-National, Interagency, Non Governmental organizations and international organizations.
 6. Facilitate the management of information across the staff to support effective decision making.
 7. Assess the execution of assigned tasks (MOP) ISO mission accomplishment.
 8. Assess mission accomplishment (MOE).
 9. Develop/Execute branches and sequels as required.

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Planning methodology must achieve the necessary level of creativity and/or efficiency to properly frame and solve the problem within available resource constraints.

GCE-TRNG-2505: Execute the Unit Readiness Plan

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 24 months

DESCRIPTION: Through the prioritization and allocation of resources, train and maintain the unit in preparation for operations.

MOS PERFORMING: 0302, 0303, 0802, 1302, 1802, 1803

BILLETS: Operations Officer

GRADES: MAJ, LTCOL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an approved training plan, all elements of a Ground Combat Element operating in the contemporary environment within a MAGTF/Joint/Multi-National/Interagency Command and Control architecture, necessary resources, higher headquarters order, commander's guidance and references.

STANDARD: Unit able to accomplish assigned tasks and meet manpower and equipment requirements.

PERFORMANCE STEPS:

1. Develop schedule encompassing training, maintenance, and operations.
2. Develop Letters of Instruction and briefs.
3. Provide instructional material.
4. Develop performance evaluation checklist.
5. Assign instructors.
6. Assign evaluators for E-coded and commander designated events.
7. Prioritize, allocate and schedule resources.
8. Adjust training plan based upon assessment.
9. Draft Defense Readiness Reporting System (DRRS) report.
10. Maintain unit training statistics.

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Training Schedule should include operations, maintenance, and training.
2. Assigned tasks consists of core METS as published by T&R Manual, additional assigned METS and Commander determined METS which determine the Units METL.

GCE-TRNG-2506: Prepare a unit to execute across the Range of Military Operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 24 months

DESCRIPTION: Through pre-deployment training and pre-operational training, rehearsals and inspections facilitate the accomplishment of offensive, defensive, stability, and support tasks.

MOS PERFORMING: 0302, 0303, 0802, 1302, 1802, 1803

GRADES: MAJ, LTCOL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all elements of a Ground Combat Element operating in the contemporary environment within a MAGTF/Joint/Multi-National/Interagency Command and Control architecture, necessary resources, higher headquarters order, commanders guidance and references.

STANDARD: The unit is capable of accomplishing assigned tasks.

PERFORMANCE STEPS:

1. Develop unit METL.
2. Develop unit mission statement.
3. Determine unit proficiency.
4. Develop training strategy.
5. Develop Unit Readiness Plan.
6. Issue the unit readiness plan.
7. Execute the unit readiness plan.
8. Assess unit readiness plan.
9. Compare unit's capabilities and limitations to assigned operational mission.
10. Issue plans and orders.
11. Execute necessary training.
12. Execute necessary rehearsals, checks and inspections.
13. Determine required assessments to validate capabilities and limitations to accomplish the operational mission.

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Multi-National includes Allied and Combined military and non-military forces.
 2. Assigned task within the standard means T&R tasks, METs, and missions.
 3. Types of rehearsals include but are not limited to; table-top, rehearsal of concept drills, war-fighting function rehearsals (e.g. combined arms rehearsals, combat service support rehearsals) dress rehearsal, full rehearsal.
 4. Unit Readiness Plan includes training, equipment and personnel readiness requirements
-

GCE-TRNG-2507: Assess developed training and operational plans

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 24 months

DESCRIPTION: During the execution of developed plans, apply assessment methodologies developed in planning to measure progression of mission accomplishment and/or solving identified problem.

MOS PERFORMING: 0302, 0303, 0802, 1302, 1803

BILLETS: Operations Officer

GRADES: MAJ, LTCOL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given developed plans, all elements of a Ground Combat Element operating in the contemporary environment within a MAGTF/Joint/Multi-National/Interagency Command and Control architecture, necessary resources, higher headquarters order, commanders guidance and references.

STANDARD: Develop metrics and a framework to measure the progression towards mission accomplishment and/or solving identified problem.

PERFORMANCE STEPS:

1. Determine which objectives to assess.
2. Determine necessary conditions which equate to objective completion.
3. Develop an assessment framework.
4. Nest assessment with Higher, adjacent, supporting/supported units.
5. Develop criteria to assess changes in system behavior, capability, or operational environment to measure mission accomplishment. (MOE)
6. Develop criteria to assess friendly actions to measure task accomplishment. (MOP)
7. Develop metrics for each criteria.
8. Collect metric data and observations.
9. Synthesize metric data and observations.
10. Analyze metric data and observations.
11. Measure performance towards accomplishment of assigned tasks ISO assigned mission.
12. Measure effectiveness towards assigned mission accomplishment.
13. Determine if plan is valid.
14. Adjust actions as necessary.

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Assessment framework entails a method and process to assess particular tasks, activities, or effects and the criteria to be used. It specifically delineates the staff member who is primarily responsible for assessing a particular area. And, it promulgates information requirements needed each particular assessment. Assessment criteria and metrics should have the following characteristics; measurable, discrete, relevant, responsive.

GCE-TRNG-2508: Develop Unit Standard Operating Procedures and Policies

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 24 months

DESCRIPTION: Based upon doctrine and the incorporation of best practices and lessons learned, achieve unit standardization and interoperability internal and external to the unit through the development of techniques, tactics and procedures in both training and operations.

MOS PERFORMING: 0302, 0303, 0802, 1302, 1802, 1803

BILLETS: Operations Officer

GRADES: MAJ, LTCOL

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given all elements of a Ground Combat Element operating in the contemporary environment, commanders and other relevant guidance, orders, and procedures, and necessary resources and references.

STANDARD: Demonstrate interoperability with other units/organizations while accomplishing assigned tasks through adaptation to changing environments.

PERFORMANCE STEPS:

1. Analyze doctrine, best practices and lessons learned.
2. Determine best practices and lessons learned for incorporation.
3. Develop unit TTPs by warfighting functions based upon doctrine, selected best practices, and lessons learned.
4. Develop unit's methods and tenets of standardization and interoperability (SOP and policies).
5. Validate units SOP and policies.
6. Refine units SOP and policies.
7. Publish units SOP and policies.
8. Maintain contact with appropriate organizations to ensure learning continues (give and take best practices and lessons learned).
9. Update units SOP and policies as required.
10. Submit best practices, lessons observed, and lessons learned to appropriate organizations.

REFERENCES:

1. MCWP 5-1 Marine Corps Planning Process (MCP)
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INFANTRY T&R MANUAL

APPENDIX A

ACRONYMS AND ABBREVIATIONS

AA&E	Arms, Ammunition, and Explosives
AAR	After Action Review
AAV	Amphibious Assault Vehicle
ACA	Air-Space Coordination Area
ACE	Ammunition, Casualty, and Equipment
ACE	Aviation Command Element
ACM	Aviation Control Measures
AE	Angle of Elevation
AGM	Attack Guidance Matrix
AI	Area of Influence
AO	Area of Operations
AOI	Area of Interest
APOBS	Anti-Personnel Obstacle Breaching System
AS	Angle of Sight
ASE	Air Support Element
ASLT	Air Support Liaison Team
AT	Anti-tank
AtN	Attack the Network
APERS	Anti-personnel
BCL	Battlespace Coordination Line
BCP	Body Composition Program
BDA	Battle Damage Assessment
BFT	Blue Force Tracker
BIT	Built in Test
BP	Battle Positions
BUIS	Back-up Iron Sights
BZO	Battle Sight Zero
C2	Command and Control
CAS	Close Air Support
CASEVAC	Casualty Evacuation
CAST	Combined Arms Staff Trainer
CBRN	Chemical, Biological, Radiological, Nuclear
CBAE	Commanders Battle space Area Evaluation
CCIR	Commander's Critical Information Requirements
CCM	Close Combat Marines
CCOC	Company Combat Operations Center
CCP	Casualty Collection Point
CCRB	Course Content Review Board
CDE	Collateral Damage Estimates
CDS	Containerized Delivery System
CE	Command Element
CFF	Call for Fire
CFL	Coordinate Firing Line
CGI	Commanding General's Inspection
CIAP	Competition in Arms Program
CIED	Counter-IED
CLIC	Company Level Intelligence Cell
CLU	Command Launch Unit
CMBH	Combat Hunter

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CMO	Civil Military Operations
CMOC	Civil Military Operations Center
CMR	Consolidated Memorandum Receipt
CAN	Computer Network Attack
CNO	Computer Network Operations
COA	Course of Action
COC	Combat Operations Center
CONPLAN	Concept of Operation Plan
COP	Common Operating Picture
COP	Combat Outpost
CP	Command Post
CTP	Common Tactical Picture
CTTP	Counter TTP
CSMO	Close Station March Order
CSS	Combat Service Support
DASC	Direct Air Support Center
DCP	Detainee Collection Point
DNS	Day/Night Sight
DOCEX	Document Exploitation
DODIC	Department of Defense Identification Code
DRRS	Defense Readiness Reporting System
DVTE	Deployable Virtual Training Environment
EA	Electronic Attack
EAP	Emergency Action Plan
ECC	Evacuation Control Center
ECP	Entry Control Point
EDL	Equipment Density List
EEFI	Essential Elements of Friendly Information
EFST	Essential Fire Support Tasks
EIC	Excellence in Competition
EKMS	Electronic Key Management System
EOD	Explosives Ordnance Disposal
EOM	End of Mission
EP	Electronic Protection
EPBST	Enhanced Producibility Basic Skills Trainer
ES	Electronic Support
EW	Electronic Warfare
FA	Field Artillery
FAC	Forward Area Controller
FCS	Fire Control Sub-system
FDC	Fire Direction Center
FDP&E	Force Deployment Planning & Execution
FFA	Free Fire Areas
FFE	Fire for Effect
FFIR	Friendly Force Information Requirements
FFP	Final Firing Position
FIRECAP	Fire Capability
FPCON	Force Protection Condition
FPF	Final Protective Fire
FPL	Final Protective Line
FM	Field Manual
FO	Forward Observer
FOB	Forward Operating Base
FONS	Fleet Operational Needs Statement
FP	Firing Positions
FRAGO	Fragmentary Order
FSA	Fire Support Areas

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FSCC	Fire Support Coordination Center
FSCL	Fire Support Coordination Line
FSCM	Fire Support Coordination Measures
FIST	Fire Support Team
FWIC	Foreign Weapons Instructor Course
GCE	Ground Combat Element
GPS	Global Positioning System
GT	Gun-Target
HA	Holding Areas
HAS	Higher, Adjacent, Supporting
HAT	Helicopter Availability Tables
HAW	Heavy Antitank Weapon
HAZMAT	Hazardous Material
HE	High Explosive
HEALT	Helicopter Employment and Assault Landing Table
HF	High Frequency
HHQ	Higher Headquarters
HLIDE	Handheld Interagency Identity Detection Equipment
HLD	Helicopter Landing Diagram
HN	Host Nation
HOB	Height of Burst
HST	Helicopter Support Team
HVI	High Value Individual
HVT	High Value Target
HWSAT	Helicopter Wave and Serial Assignment Table
IA	Information Assurance
IAR	Infantry Automatic Rifle
ICP	Initial Commencement Point
IED	Improvised Explosive Device
IERS	Information Exchange Requirements
IM	Information Management
IO	Information Operation
IOW	Intelligence Operations Workstation
IP	Initial Point
IPB	Intelligence Preparation of the Battlespace
IPOE	Intelligence Preparation of the Operating Environment
IR	Information Requirements
ISMT	Individual Small-Arms Marksmanship Trainer
ISR	Intelligence, Surveillance, & Reconnaissance
ITG	Initial Terminal Guidance
I&W	Indications and Warning
IZLID	Infrared Zoom Laser Illuminator/Designator
J-FIRE	Joint Application of Firepower
JIIM	Joint, Interagency, Intergovernmental, Multinational
JIPTL	Joint Integrated Prioritized Target List
JTAC	Joint Terminal Attack Controller
KD	Known Distance
KIA	Killed in Action
KIM	Keep In Memory
LAAD	Low Altitude Air Defense
LAW	Light Antitank Weapon
LBB	Lithium-ion Battery Box
LBS	Laser Boresight
LD	Line of Departure
LEP	Law Enforcement Professional
LOA	Line of Advance
LOC	Lines of Communication

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LOD Line of Departure
 LOGCAP Logistics Civilian Augmentation Program
 LOI Letter of Instruction
 LOO Lines of Operation
 LP Listening Post
 LRC Learning Resource Center
 LRSR Long Range Sniper Rifle
 LTI Limited Technical Inspection
 LZ Landing Zone
 MACCS Marine Air Command and Control System
 MACO Marshalling Area Control Officer
 MAW Medium Antitank Weapon
 MAV Micro Aerial Vehicle
 MBC Mortar Ballistic Computer
 MCCMP Marine Corps Combat Marksmanship Program
 MCERG Marine Corps Equipment Review Group
 MCPP Marine Corps Planning Process
 MDO Machinegun Day Optic
 MEDEVAC Medical Evacuation
 METL Mission Essential Task List
 METOC Meteorological and Oceanographic
 METT-TSLC Mission, Enemy, Terrain and Weather, Troops and Fire
 Support Available, Time Available, Space, Logistics,
 Civil Considerations

 MILDEC Military Deception
 MIPIM Mini Integrated Pointer Illuminator Module
 MLCOA Most Likely Course of Action
 MOE Measures of Effectiveness
 MOJT Managed on the Job Training
 MOP Measures of Performance
 MOPP Mission Oriented Protective Posture
 MOUT Military Operations on Urbanized Terrain
 MPF Maritime Prepositioning Force
 MPMG Multipurpose Machine Gun Range
 MTC Movement to Contact
 MTO Message to Observer
 MTTP Military Tactics, Techniques, and Procedures
 NAAK Nerve Agent Antidote Kit
 NATO North Atlantic Treaty Organization
 NBC Nuclear, Biological, and Chemical
 NEO Non-Combatant Evacuation Operations
 NFA No Fire Areas
 NGFS Naval Gunfire Support
 NSFS Naval Surface Fire Support
 NVD Night Vision Device
 ODS Operational Driver Simulator
 OE Operational Environment
 OIC Officer in Charge
 OKOCA-W Observation, Key terrain features, Obstacles,
 Cover and Concealment and Avenue, Weather

 OODA Observe, Orient, Decide, Act
 OP Observation Post
 OPLAN Operations Plan
 OPORD Operations Order
 OPSEC Operational Security
 OPT Operational Planning Team
 ORAW Operational Risk Assessment Worksheet

ORM Operational Risk Management
ORP Objective Rally Point
OT Observer to Target
PCC Pre-Combat Check
PCI Pre-Combat Inspection
PCR Personnel Casualty Report
PDF Principle Direction of Fire
PFI Pre-Fire Inspection
PICMDEEP Pairs, Interlocking, Coordinating, Mutual
Support, Defilade, Enfilading Fire,
Economy of Fire, and Protection

PIR Priority Intelligence Requirement
PL Phase Line
PMCS Preventative Maintenance Checks and Services
PME Professional Military Education
POA Point of Aim
POI Point of Impact
POL Petroleum, Oils, and Lubricants
POM Program Objectives Memorandum
POSREP Position Report
PPE Personal Protective Equipment
PSYOP Psychological Operations
QE Quadrant Elevation
QRF Quick Reaction Force
R2P2 Rapid Response Planning Process
RAM Random Antiterrorism Measures
RADBN Radio Battalion
RBE Remain Behind Equipment
RCO Rifle Combat Optic
RFA Restrictive Fire Areas
RFI Request for Information
RFL Restrictive Fire Line
RIP Relief in Place
RMR Ruggedized Miniature Reticle
RO Radio Operator
ROE Rules of Engagement
ROMO Range of Military Operations
RP Reference Point
RPG Rocket Propelled Grenade
RREMS Refinement data, Record as Target, End of Mission, and Surveillance
RSO Range Safety Officer
RSO&I Reception, Staging, Onward Movement, and Integration
RSOP Reconnaissance, Selection, and Occupation of Firing Position
SALUTE Size, Activity, Location, Unit, Time, and Equipment
SARCC Surveillance and Reconnaissance Control Centers
SASR Special Application Scoped Rifle
SATCOM Satellite Communications
SAVT Supporting Arms Virtual Trainer
SCC Sniper Control Center
SCLU Simulated Command Launch Unit
SDK Skin Decontamination Kit
SDO Squad Day Optic
SDZ Surface Danger Zone
SE Site Exploitation
SEAD Suppression of Enemy Air Defenses
SHELREP Shelling Report
SIR Specific Information Requirement

SITREP Situation Report
SMAW Shoulder-Launched Multipurpose Assault Weapon
SOM Scheme of Maneuver
SOP Standing Operating Procedures
SSE Sensitive Site Exploitation
STRESS Search, Tag, Report, Evacuate, Segregate, and Safeguard
TA Target Acquisition
TA Training Area
TAA Tactical Assembly Area
TACLOG Tactical-Logistical Group
TAI Target Area of Interest
TAS Target Acquisition Sub-system
TCP Tactical Control Point
TD Tactical Debriefing
TEEP Training Exercise and Employment Plan
TEWT Tactical Exercise without Troops
TFT Tabulated Firing Tables
TIO Target Information Officer
TM Technical Manual
TOW Tube-launched, Optically tracked, Wire-guided missile
TO&E Table of Organization and Equipment
TPFDD Time Phased Force Deployment Data
TQ Tactical Questioning
TRAP Tactical Recovery of Aircraft and Personnel
TRP Target Reference Point
TSE Tactical Site Exploitation
TSS Target Selection Standards
TST Time Sensitive Target
TTP Tactics, Techniques, and Procedures
TU Traversing Unit
UAS Unmanned Aerial System
UHF Ultra High Frequency
UPA Universal Pintle Adapter
UTM Unit Training Management
VBS1 Visual Battlefield System 1
VBS2 Visual Battlefield System 2
VCP Vehicle Check Point
WIA Wounded in Action

INFANTRY T&R MANUAL

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 Pub 1-02, DOD Dictionary of Military and Associated Terms.

A

After Action Review (AAR). 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.

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. Utilizing the building block approach to progressive training, these collective events are further supported by individual training events at the 1000 and 2000-levels. 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.

D

Deception. Those measures designed to mislead the enemy by manipulation, distortion, or falsification of evidence to induce the enemy to react in a manner prejudicial to the enemy's interests. (JP 1-02)

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.

I

Individual Readiness. The individual training readiness of each Marine is measured by the number of individual events required and completed for the rank or billet currently held.

M

Marine Corps Combat Readiness and Evaluation System (MCCRES). An evaluation system designed to provide commanders with a comprehensive set of mission performance standards from which training programs can be developed; and through which the efficiency and effectiveness of training can be evaluated. The Ground T&R Program will eventually replace MCCRES.

O

Operational Readiness (OR). (DoD or 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

Performance Step. Performance steps are included in the components of an Individual T&R Event. They are the major procedures (i.e., actions) a Marine unit must accomplish to perform an individual event to standard. They describe the procedure the task performer must take to perform the task under operational conditions and provide sufficient information for a task performer to perform the procedure (may necessitate identification of supporting steps, procedures, or actions in outline form). Performance steps follow a logical progression and should be followed sequentially, unless otherwise stated. Normally, performance steps are listed only for 1000-level individual events (those that are taught in the entry-level MOS school). Listing performance steps is optional if the steps are already specified in a published reference.

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).

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.

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.

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.

INFANTRY T&R MANUAL

APPENDIX C

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TM 9-1240-403-12 & P Operator's and Organizational Maintenance Manual (M22 Binocular)
TM 9-1290-262-10 Operator's Manual, Aiming Circle, M2 and M2A2
TM 9-1290-333-15 W/CH 1-4 Compass Magnetic Unmounted, M2
TM 9-1315-886-12 Launcher and Cartridge 84MM, M136 (AT-4)
TM 9-1340-214-10 LAAW/LAAW trainer (practice)
TM 9-1370-208-10 Photoflash Cartridges, Surface Flares and Miscellaneous Pyrotec Items
TM 9-1375-213-12 Demolition Materials
TM 9-1425-450-12 TOW Weapon System Guided Missile System
TM 9-1425-472-12 TOW 2 Weapon System Guided Missile System M220E4
TM 9-1425-923-12 Saber System (Improved Target Acquisition System) M41A
TM 9-2320-387-10 Operator Maintenance Manual for Truck; Utility: Cargo/Troop Carrier, 2-1/4 Ton, 4X4
TM 9-4935-455-14 Operator's, Organizational, Direct Support and General Support Maintenance Manual for Electrical Circuit Test Set, AN/TSM-158
TM 92320-280-10 Technical Manuals for Highly Mobile Multi-Wheeled Vehicle (HMMWV)

Miscellaneous

1581600038 Tactical Tracking Operations by David Scott-Donelan
9780160800863 USMC Site Exploitation: Evidence Collection - training support package
ATP-TM-MFAL Advanced Target Pointer Illuminator Aiming Light PEQ-15
BUST Handbook
CALL 07-26 Tactical Site Exploitation and Cache Search Operations
CMP Rule Book
DCOCSOP Digital COC SOP for Battalion Operations in Irregular Warfare
Explosive Ordnance Disposal Guidelines
FMFRP 4-19 Vehicle Recovery Operations
FMFRP 4-52 First Aid
FMFRP 12-15 Small Wars Manual
FMI 5-0.1 The Operations Process FT60-P-1 60mm firing table
FT81-AR-2 81mm firing table
IP 2-31 Infantry Mortars
IP 2-32 Anti-mechanized Weapons

Jane's Book of Armored Vehicles
JIEDDTF 05-23 Joint Improvised Explosive Device Defeat Organization Tactics,
Techniques and Procedures Handbook
MCWL 3-35.3X Combat Hunter
NAVSEASWO 60-AA-MMA-010 Demolition Materials
NSPD-44 Management of Interagency Efforts Concerning Reconstruction and
Stabilization
NWP 22-10 MPF Operations
OH 1-5-1 Tri-MEF Maritime Pre-positioning Force Standing Operating Procedure
SH 21-76 Ranger Handbook
SI 11065A-IN/1 Warranty Procedure for the AN/PSQ-18A, M203 DAY/NIGHT SIGHT
SI 11085A-OD/1 Warranty Procedures for AN/PVS-9(V)4
SL-3-02498B Machine Gun, Caliber .50, Browning, M2
SL-3-08521A Machine Gun, 40mm, MK-19, Mod 3
TB 11-5825-291-10-3 The PLGR made simple
TC 25-10 A Leader's Guide to Lane Training
TC 31-73 Special Forces Advisor Guide
TTECG/MAWTS-1 Convoy Battle Skills Handbook
UMEG Urban Mobility Engineer's Guidebook
USMC Range Safety Pocket Guide
X-FILE 3-35.31 Urban Attack
X-FILE 3-35.32 Urban Defense
X-FILE 4-11.71 Urban Sustainment

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APPENDIX D

CLASS V(W) ALLOCATION

1. The Class V listed in this appendix is the Battalion Commander's Annual Ammunition Allocation.

2. This is the ammunition allocation planned by Headquarters Marine Corps. If allowances are constrained, actual allocations will be determined by MEF G3's.

DODIC Nomenclature	Active Battalion	Reserve Battalion
A059 Ctg, 5.56mm Ball M855 10/Clip	943,678	377,472
A060 Ctg, 5.56mm Dummy M199	500	200
A063 Ctg, 5.56mm Tracer M856 Single Round	86,280	34,512
A064 Ctg, 5.56mm 4 Ball M855/1 Tracer M856 Linked	547,200	218,880
A075 Ctg, 5.56mm Blank M200 Linked	17,280	6,912
A080 Ctg, 5.56mm Blank M200 Single Round	517,680	207,072
A112 Ctg, 7.62mm Blank M82	25,600	10,240
A131 Ctg, 7.62mm 4 Ball M80/1 Tracer M62 Linked	211,108	84,444
A135 Ctg, 7.62mm Dummy M63	400	160
A143 Ctg, 7.62mm Ball M80 Linked	192,000	76,800
A151 Ctg, 7.62mm 4 Ball/1 Tracer Linked	192,000	76,800
A358 Ctg, 9mm TP-T M939 for AT-4 Trainer	5,744	2,298
A363 Ctg, 9mm Ball M882	1,000	400
A552 Ctg, Cal .50 Ball M2	7,104	2,842
A555 Ctg, Cal .50 Ball M33 Linked (M2 Links)	16,000	6,400
A560 Ctg, Cal .50 Dummy M2	100	40
A576 Ctg, Cal .50 4 API M8/1 API-T M20 Linked	58,896	23,559
A598 Ctg, Cal .50 Blank M1A1 Linked	16,000	6,400
A606 Ctg, Cal .50 API MK211 Mod 0 Single Round	4,736	1,895
AA11 Ctg, 7.62mm Long Range M118 LR	22,272	8,909
AA53 Ctg, 5.56mm Ball Special Match LR MK 262 Mod 0	24,300	9,720
AA91 Ctg, 5.56mm Marking FX Blue MK289 Mod 0 Linked	46,000	18,400
AA92 Ctg, 5.56mm Marking FX Red MK293 Mod 0 Linked	46,000	18,400
AX11 Ctg, 9mm Spotting Rifle MK217 Mod 0	2,412	965
B472 Ctg, 40mm Dummy M922	50	20
B504 Ctg, 40mm Green Star Parachute M661	936	375
B509 Ctg, 40mm Yellow Smoke Ground Marker M716	936	375
B519 Ctg, 40mm Practice M781	1,872	749
B535 Ctg, 40mm White Star Parachute M583/M583A1	469	188
B542 Ctg, 40mm HEDP M430/M430A1 Linked	17,476	6,991
B546 Ctg, 40mm HEDP M433	4,368	1,748
B643 Ctg, 60mm High Explosive M888	900	360
B647 Ctg, 60mm Illuminating M721	252	101
BA14 Ctg, 60mm Smoke White Phosphorus M722A1	65	26
BA16 Ctg, 60mm HE w/MOF M734	639	256
BA21 Ctg, 40mm Practice (Day/Night) MK281 Mod 1 Linked	7,296	2,919
BA35 Ctg, 40mm Practice (Day/Night) XM1110	6,858	2,744
C484 Ctg, 81mm Illuminating IR M816	13	6
C869 Ctg, 81mm HE M889/M889A1 with PD Fuze M935	3,063	1,226
C870 Ctg, 81mm Smoke Red Phosphorus M819 MTSQ Fuze	98	40
C871 Ctg, 81mm Illuminating M853A1 with MTSQ Fuze M772	156	63

DODIC Nomenclature		Active Battalion	Reserve Battalion
C995	Ctg, and Launcher, 84mm M136 AT-4	162	65
FMPR	FOTS Multi-Purpose Round	72	29
FPTR	FOTS Practice Training Round	216	87
G811	Gren, Hand Practice Body M69	909	364
G878	Fuze, Hand Gren Practice M228 w/ Conf Clip	16,218	6,488
G881	Gren, Hand Fragmentation M67 w/ Conf Clip	540	216
G940	Gren, Hand Green Smoke M18	162	65
G945	Gren, Hand Yellow Smoke M18	162	65
G955	Gren, Hand Violet Smoke M18	162	65
G963	Gren, Hand Riot CS M7A3	78	32
G982	Gren, Hand Practice Smoke TA M83	162	65
HA21	Rocket, 21mm Sub-Cal M72AS LAW Trainer	1,436	575
HA29	Rocket, 66mm HE M72A7 LAW with Graze	162	65
J007	Mine, Antipersonnel M18A1 with Non-Elec Mini Shock Tube	63	26
J008	Mine, Antipersonnel Practice M68 w NonElec Mini Shock Tube	16	7
K765	Riot Control Agent, CS	100	40
L305	Signal, Illumination Ground Green Star Parachute M195	162	65
L307	Signal, Illumination Ground White Star Cluster M159	384	154
L312	Signal, Illumination Ground White Star Parachute M127A1	571	229
L314	Signal, Illumination Ground Green Star Cluster M125A1	162	65
L495	Flare, Surface Trip M49/A1 Series	411	165
L592	Sim, Anti-Tank Launcher (TOW)	125	50
L594	Sim, Proj Ground Burst M115A2	384	154
L598	Sim, Explosive Booby Trap Flash M117	411	165
L599	Sim, Explosive Booby Trap Illuminating M118	384	154
M023	Chg, Demo Block M112 1-1/4 pound C-4	1,092	437
M028	Demo Kit, Bangalore Torpedo M1A2	2	1
M030	Chg, Demo Block TNT 1/4-Pound	300	120
M032	Chg, Demo Block TNT 1-Pound	156	63
M097	Cap, Blasting Non-Electric Inert	780	312
M098	Cap, Blasting Electric Inert	1,326	531
M130	Cap, Blasting Electric M6	1,254	502
M131	Cap, Blasting Non-Electric M7	1,092	437
M456	Cord, Detonating PETN Type I Class E	26,715	10,686
M670	Fuse, Blasting Time M700	4,992	1,997
M757	Chg, Assembly Demo M183 Comp C-4	78	32
MN08	Igniter, Time Blasting Fuse with Shock Tube Capable M81	3,003	1,202
MN79	Mine, Antipersonnel Obstacle Breaching System MK7 Mod 1	3	2
MN88	Cap, Blasting, Non-Electric, M21 w/ 500 ft. Minitube	50	20
PM93	GM, Surface Attack (Javelin Missile Upgrade) FGM-148E	2	1
WH03	GM, BGM-71E-2B (TOW-2A HEAT)	12	5
WH05	GM, BTM-71E-1B (Practice TOW)	20	8

3. These allowances are based on a notional active duty infantry battalion and does not represent strict literal interpretations of the individual and collective training standards of this manual.

4. The above table shows the allowance that commanders will be allocated in TAMIS to conduct annual sustainment training.

5. Due to time constraints, the reserve infantry battalion allowances are computed at approximately 40% of an active duty battalion for most items.

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APPENDIX E

SIMULATION

Listed in this appendix are applicable simulations available to improve training for both individual Marines and unit training in the Marine Corps. Information is downloadable and available at:
<http://intranet.tecom.usmc.mil/sites/techdiv/Programs/dvte/ccm/default.apex>

Simulation codes are added to each event and can be found immediately following the training event title. The codes are as follows:

- A. Simulation **must** be used, whenever possible, in lieu of live training (particularly when the physical actions of accomplishing the event are constrained).
- B. Simulation **should** be used, whenever possible, in lieu of live training (particularly when resources to support the event are constrained); or at the Commander's discretion, used as a precursor to live training in order to help maximize and enhance the live training event.
- C. This task can be supported by self-paced, computer based training (i.e. MarineNet).
- D. **No simulation** is available to support the event.

1. **Deployable Virtual Training Environment (DVTE):** DVTE is a first person skills sustainment trainer that can be used to train Marines from the individual to the battalion staff by using a simulation network with reconfigurable workstations capable of emulating a vast array of training scenarios. DVTE is made up of two components; the first is the Infantry Tool Kit (ITK) which contains several Tactical Decision-making Simulations (TDS). The other half of DVTE is the Combined Arms Network (CAN). DVTE is currently being fielding down to the regimental and MEU level. These suites will be maintained at the regimental level for use by subordinate units. Support for the training and hardware for DVTE will be accomplished locally at each MEF by a DVTE team from the MEF Simulation Center. Below is a list of the DVTE applications that support the identified T&R standards.

a. **Close Combat: Marines (CCM):** CCM is a real-time strategy TDS that teaches tactics at the squad, platoon, and company levels. The target audience is Non-Commissioned Officers (NCOs), Staff NCOs, and junior officers. It is designed to supplement field exercises, allowing instructors to create their own scenarios.

b. **Virtual Battlefield System 1&2 (VBS):** VBS1 is designed as an interactive, three-dimensional synthetic environment in which small unit tactics may be practiced among team members. Photo-realistic terrain, user-definable mission scenarios, and variable environmental conditions enhance the team training experience. VBS1 provides the ability to operate a myriad of land, sea, and air vehicles across large outdoor terrains and allows free play within scenario based training missions.

c. **Recognition of Combatants- Improvised Explosive Device (ROC-IED):** ROC-IED is a computer based training tool designed to improve awareness and recognition of IEDs.

d. **Combined Arms Network (CAN):** CAN is a computer based training tool that provides standard based training for individual Forward Air Controllers and JTAC as well as team training for company fire support teams.

2. **Indoor Simulated Marksmanship Trainer (ISMT):** is an interactive three dimensional audio/video weapons simulator that provides enhanced small arms training in marksmanship, weapons employment, indirect fire, and tactical decision-making for Marines. The ISMT simulates range firing for basic infantry weapons, tactical employment training, call for fire, and shoot/no shoots decision-making drills. The ISMT can be utilized to train individuals, fire teams, and squads effectively and efficiently to the approved standards of combat skills and readiness.

3. **Combat convoy simulator (CCS):** CSS, formerly known as VCCT is a mobile simulation system where six manned m1114 high mobility multi-purpose wheeled vehicle (HMMWV)/MTRV virtual simulators are networked for real-time, fully interactive collective training at the convoy level while embedded into a computer generated environment. A CCS suite provides training to individual, crew, and platoon personnel (up to 30 individuals at a time) covering the skills and knowledge of crew through platoon level doctrine for the implementation of combat convoy operations. Each HMMWV/MTRV crew is required to communicate, maintain situational awareness, and acquire targets while moving at realistic highway speeds in the convoy virtual environment. Additionally, a CCS suite provides Marines with the capability to identify, engage, and destroy the enemy "on the move" in an ambush scenario, while reinforcing the driver disciplines required for successful convoy operations. For more information on scheduling training with CCS, please contact your local Simulation Center.

4. **Supporting Arms Virtual Trainer (SAVT)** is a fixed-site, partial dome (260 X 60 degree), virtual immersive training environment for Joint Terminal Attack Controller (JTACs), Forward Air Controllers (FACs), and Joint Forward Observers (JFOs). SAVT provides a "hands-on," immersive, mission-based, combined arms training environment. The personnel shall use training scenarios that require placement of tactical ordnance on selected targets using Joint Close Air Support (JCAS) procedures and observed fire procedures for Naval Surface Fire Support (NSFS), Artillery and Mortar fire to perform destruction, neutralization, suppression, illumination/coordinated illumination, interdiction, and harassment fire missions. SAVT will provide a briefing and after action room for a group of students to monitor, review mission-based training events, and conduct after-action discussions. SAVT trains Marines to approved standards of training and readiness (T&R) tasks.

5. **Operator Driver System (ODS)** is a high fidelity immersive technical skills trainer for teaching Marines how to safely drive select commonly fielded tactical wheeled vehicles MTRV, HMMWV, and Mine Resistant Armored Protected (MRAP) Category I and II Cougar and Cat III Buffalo variants. The ODS is an interactive, reconfigurable training device which provides realistic feedback to the student through the steering wheel, driver pedals, and dashboard controls that replicate the experience of driving the actual selected vehicle. The ODS models the effects of wind, temperature, precipitation, traction, tire pressure, and road surfaces on the handling characteristics of the selected tactical vehicle and used to provide both

driver entry level and driver sustainment level training. This training capability provides valuable rehearsal time for drivers, with the ultimate intent of teaching Marines how to safely drive selected field tactical wheeled vehicles. ODS trains Marines to approved standards of training and readiness (T&R) tasks.

6. **Combat Vehicle Trainer System (CVTS)** consists of three separate training systems: M1A1 Main Battle Tank, the Light Armored Vehicle - 25 Variant (LAV-25), and the Assault Amphibious Vehicle (AAV). CVTS is used by the Operational Forces and formal schools to train crew, section, and platoon gunnery and tactical training skills. CVTS provides familiarization, proficiency, sustainment, and cross-training at each crew position and as a full-crew. An instructor/operator is able to control exercise selection, observe crew member actions, and conduct after-action reviews with the crews. CVTS trains M1A1, LAV-25, and AAV crew members to approved standards of combat skills and readiness.

7. **Family of Egress Trainers (FET)** consists of multiple Underwater Egress Training (UET) devices and Dry Rollover Egress Training Devices (DRET). All FET training is designed to teach egress principles.

UET devices with accompanying breathing devices are:

- a. **Modular Amphibious Egress Trainer (MAET)** provides an underwater escape trainer for passengers with generic fuselage sections representing vertical flight platforms.
- b. **Shallow Water Egress Trainer (SWET)** is a single seat egress trainer and is used in conjunction with the MAET platform.
- c. **Submerged Vehicle Egress Trainer (SVET)** is a split cab with one side that replicates a HMMWV and the other the crew compartment of an AAV for the instruction of underwater egress and is operated at the same location as the MAET. SVET allows service members the ability to have a controlled egress from a vehicle platform while submerged and inverted.

DRET devices are:

- a. **HMMWV Egress Assistance Trainer (HEAT)** assists service members in teaching the proper SOP's for the orderly egress of a rolled vehicle. HEAT is able to roll 360 degrees and it allows the occupants to experience a rollover under controlled conditions to better ensure the egress of a rolled wheeled platform.

MRAP Egress Trainer (MET) provides firsthand knowledge of the imminent rollover angles of the MRAP and allows practical application of egress procedures in the event of a rollover.

8. **MAGTF Tactical Warfare Simulation (MTWS)** is a simulation program that can be used to train battle staffs from Battalion through MEF, Marine Forces Reserve (MARFORRES) and internal MEF components i.e., Ground Combat Element, Aircraft Combat Element, and Combat Service Support Element. The primary mission of MTWS is two-fold: to provide a realistic combat environment for commanders and their staffs to refine their decision-making skills and to assist in the Command and Control (C2) aspects of tactical field exercises. It provides military personnel with the opportunity to experience and acquire skill in combat operations without the expense and risk of taking real troops to the field.

9. **Combined Arms Command and Control Trainer Upgrade System (CACCTUS)** provides an institutional means to effectively train Marine staffs and units in all aspects of effectively integrating combined arms assets. The CACCTUS capability provides the full range of combined arms staff training and provides state of the art modeling and simulation networking technology to provide realistic Combined Arms Fire Support for the Marine Air Ground Task Force (MAGTF). The high resolution combat simulation provides the ability to provide ground truth in the exercise, stimulate organic C2 Systems, visually display the impact of supporting arms fires and realistically portray the coordinated actions of friendly forces and the action/reaction of the enemy maneuver forces. The automated communication system replicates tactical communication nets required for command and control of exercising units allowing the training audience to communicate normal warfighting communications and process orders and other information/questions to response cell controllers. CACCTUS provides an automated after action review capability for live and simulated training thereby allowing the Marine Corps to meet its service training requirements.

10. **RTAM TRAINING RESOURCES**

a. **RANGE INSTRUMENTATION SYSTEMS**

(1) **Marine Corps-Instrumentation Training System (MC-ITS)**

The Marine Corps-Instrumentation Training System (MC-ITS) is an instrumentation system capable of monitoring real time live, constructive and virtual simulation exercises for the purposes of data collection, analysis, and review. Data is collected while monitoring, controlling, and recording the force-on-force or force-on-target engagements that occur in the battlefield environment. The instrumentation will be capable of supporting live and virtual exercises. The purpose of this training system is to significantly enhance the training capability, operational readiness, and tactical proficiency of Marines in tactics, techniques, and procedures in support of both collective task training and exercise events. MC-ITS will provide the capability to simultaneously support multiple training exercises. It will provide objective data collection and analysis of unit performance in force-on-force (FOF), force-on-target (FOT), Live Fire (LF), and associated Command Post Exercises (CPX). MC-ITS will integrate live training with other simulation environments to provide the doctrinally correct battle space and combat forces needed to provide tactical realism and battle-focused training across battlefield functions. The system will collate training feedback materials from varied training support and simulation systems to provide a comprehensive AAR package for associated training elements. MC-ITS training capabilities will significantly enhance the procedures in the employment of the Operational CREW2 devices and subsequent Counter-Improvised Explosive Device (C-IED). Integration of the Training - Counter Radio Electronic Warfare 2 (T-CREW2) devices and the MC-ITS will extend real-time visualization, Situational Awareness (SA), and After Action Review (AAR) capabilities thus significantly enhancing Counter-IED training. MC-ITS consists of the hardware and software that records, stores, displays, and replays exercise data to support T-CREW2 and Marine Corps - Training Improvised Explosive Device (MC-TIED) device training.

This system will be used for tracking Ground Position Location Information (G-PLI) systems Integrated GPS Radio Systems, Deployable Instrumented Training Systems, Instrumented-Tactical Engagement Simulation System (IGRS-DITS-ITESS), receiving live video inputs from Tactical Video Capture System

(TVCS), controlling Marine Corps Training Improvised Explosive Device/Training-Counter Radio Control Improvised Explosive Device (IED) Electronic Warfare (MC-TIED/T-CREW2) training events and providing an After Action Review (AAR) for Battalion sized elements and below.

(2) Tactical Video Capture System (TVCS)

The Tactical Video Capture System (TVCS) is a subset of the overarching Range Modernization and Transformation (RM/T) program. RM/T is a program of record that is upgrading Marine Corps live training support capabilities in an incremental manner. These upgrades include developing and fielding new capabilities that create a realistic Live-Virtual-Constructive Training Environment (LVC-TE) to specifically enhance live Marine combat training at various USMC Military Operations in Urban Terrain (MOUT) training venues. The TVCS provides Real-Time Visualization, Situation Awareness (SA), and After Action Review (AAR) capabilities. The TVCS will support these capabilities by using a video-stitching process which combines raw/captured video from multiple cameras into a single wide-panoramic view. The panoramic view is used in real-time to observe Marines Urban Warfare tactics and for later use during group and individual AAR evaluation sessions. The TVCS AAR will also allow for insertion of text, graphics, 3D views, and audio.

b. FORCE ON FORCE SYSTEMS

(1) Instrumented - Tactical Engagement Simulation System (I-TESS)

The Instrumented-Tactical Engagement Simulation System (I-TESS) is used to support direct force-on-force tactical engagement training. This system consists of the following type components: Small Arms Transmitter (SAT), Man-worn Detection System (MDS), Command and Control (C2 - mobile & portable versions), and Military Operations on Urbanized Terrain (MOUT) Building Instrumentation, and Simulated Battlefield Weapons. The SAT is used on the M4 and M16 type rifles and the M249 Squad Automatic Weapon (SAW). The MDS and range equipment provides the individual Marine direct force-on-force engagement adjudication and includes the ability to support instrumentation functions such as Position Location Information (PLI) reporting. The I-TESS system will be used in MOUT Facilities and Non-Live Fire Maneuver Ranges located at various Marine Corp bases and installations, providing the setting for the USMC Pre-deployment Training Program (PTP) and other type individual and company level training support. The Marine Corps has expressed a need to acquire and deliver training systems that provide real-time situation awareness, exercise control capabilities, and adjudicate indirect fire engagements so as to help facilitate the training exercise objectives. There is a need to collect the training actions/interactions of the Marines during the training exercise with the ability to provide immediate access of collected data for After Action Review (AAR) purposes.

(2) Special Effects Small Arms Marking Systems (SESAMS)

The Special Effect Small Arms Marking System (SESAMS) is a user-installed weapons modification kit that allows the individual Marine to fire, at short range, a low velocity marking ammunition while precluding the weapon from firing live ammunition. SESAMS provides instantaneous feedback during force-on-force close quarter battle scenarios. This immediate visual and sensory feedback to the shooter and target without firing live ball ammunition reduces risk to participants and significantly reduces the maintenance costs to shooting houses.

c. MINOR TRAINING DEVICES (MTD)

These items produced in the Minor Training Devices line provides instructional support to the Schools of Infantry, Recruit Depots, and support combat readiness by being available to other units through their local Combat Visual Information Centers. These training devices such as climbing wall, Portable Infantry Target Systems (PITS), models and mockups, and firearms enhance basic occupational and combat skills including tactics, weapons instruction and proficiency. In addition, ROTC students benefit from these training aides as they prepare for fleet operations through field exercises and physical fitness evaluations. The MTDs are designed to replicate the size, color, weight, fit and form of the actual corresponding weapon. The items are intrinsically of a small dollar (both unit and total cost) therefore various items are procured through the Minor Device line. MTDs provide the Marine Corps with realistic, hands-on training devices that allow for aggressive training without the risk of damage to expensive weaponry. They also allow future Marines to train and practice essential weapon skills without obtaining the required weapon qualifications.

d. INFANTRY IMMERSIVE TRAINER (IIT)

Infantry Immersion Trainers (IIT) are small unit training ranges consisting of urban structures finished and decorated to replicate geo-specific locations paired with integrated direct fire training systems, virtual simulation screens and windows, and video instrumentation for after action review. The indoor and outdoor training environments highly replicate current operational theaters by stimulating the Warfighter's senses; in order to stress small unit actions and small unit leadership tactical, moral and ethical decision making within the context of operational culture. Infantry Immersion Trainers provide a small unit decision and rehearsal training range for Squad and Fire Team capstone training and evaluation in support of Pre-deployment Training Program Plan (PTP) Phase III. Training lessons learned are also collected to form requirements basis for the Marine Corps' future Squad Immersive Training Environment.