

ARTILLERY T&R MANUAL

CHAPTER 15

MOS 0842 INDIVIDUAL EVENTS

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ARTILLERY T&R MANUAL

CHAPTER 15

0842 MOS 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 tailors 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. ADMINISTRATIVE NOTES. T&R events are coded for ease of reference. Each event has a 4-4-4 digit identifier. The first four digits represent the occupational field or military occupational field (0842). The second four digits represent the functional or duty area. The last four digits represent the level, and identifier number of the event. Every individual event has an identifier number from 000 to 999.

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15003. 1000-LEVEL EVENTS

0842-RADR-1000: Conduct RADAR planning

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0842

BILLETS: Radar Operator

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a RADAR plan, a map of the operations area, a computer with position analysis software, and the references.

STANDARD: That supports the scheme of maneuver meeting the specifications IAW MCWP 3-16.1A.

PERFORMANCE STEPS:

1. Perform map reconnaissance.
2. Input hostile mission parameters for AN/TPQ-46.
3. Input hostile mission parameters for the LCMR.
4. Input friendly mission parameters for AN/TPQ-46.
5. Evaluate performance data.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. TM 11-5840-380-10 Radar Set AN/TPQ-36(V8) Operators Manual
 3. TM 11-5840-389-10 LCMR Operator's Manual
-

0842-RADR-1100: Operate the AN/TPQ-46 RADAR

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0842

BILLETS: Radar Operator

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a RADAR plan, equipment organic to a RADAR section, and the references.

STANDARD: Ensuring the AN/TPQ-46 can process acquisitions IAW 11-5840-380-10.

PERFORMANCE STEPS:

1. Perform Site Selection.
2. Emplace the AN/TPQ-46.
3. Perform Manual Terrain Following.
4. Initialize the AN/TPQ-46.
5. Establish communications.
6. War game embedded training scenarios.
7. Perform hostile operations.
8. Perform Control Display Terminal operations.
9. Perform friendly-fire operations.
10. Displace the AN/TPQ-46.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. TM 11-5840-380-10 Radar Set AN/TPQ-36(V8) Operators Manual
-

0842-RADR-1200: Operate the Lightweight Counter Mortar Radar (LCMR)

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL**: 3 months

MOS PERFORMING: 0842

BILLETS: Radar Operator

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a RADAR plan, equipment organic to a RADAR section, and the references.

STANDARD: Ensuring the LCMR can process acquisitions IAW 11-5840-389-10.

PERFORMANCE STEPS:

1. Perform Site Selection.
2. Emplace the LCMR.
3. Initialize the LCMR.
4. Establish communications.
5. War game embedded training scenarios.
6. Perform R-PDA operations.
7. Perform counter-fire operations.
8. Perform sense and warn operations.
9. Displace the LCMR.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. TM 11-5840-389-10 LCMR Operator's Manual
-

0842-RADR-1300: Conduct hand held GPS operations

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL**: 3 months

MOS PERFORMING: 0842

BILLETS: Radar Operator

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a map sheet of operational area, and a trig list.

STANDARD: Without error IAW TM 11-5820-1172-13.

PERFORMANCE STEPS:

1. Load GPS cryptographic fills.
2. Verify Setup of handheld GPS.

3. Enter user defined datums.
4. Determine position data.
5. Perform waypoint management.
6. Navigate in the DIRECT TO mode.
7. Create routes.
8. Navigate in the ROUTE mode.
9. Conduct datum transformations.
10. Conduct zone to zone transformations.
11. Compute azimuth and distance.
12. Conduct data transfer.

REFERENCES:

1. TM 11-5820-1172-13 Operator and Maintenance Manual, Defense Advanced GPS Receiver (DAGR) Satellite Signals Navigation Set AN/PSN-13
2. TO 31R4-2PSN13-1 Defense Advanced GPS Receiver (DAGR) satellite signals navigation set AN/PSN-13

0842-RADR-1400: Conduct hasty survey operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0842

BILLETS: Radar Operator

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a trig list, map sheet of the operational area, a declination station, and survey equipment organic to a RADAR section.

STANDARD: To specifications listed in the MCWP 3-16.7.

PERFORMANCE STEPS:

1. Conduct Azimuth Determination System operations.
2. Identify components of the M2A2 Aiming Circle.
3. Emplace an aiming circle.
4. Declinate an aiming circle.
5. Determine a grid azimuth with a declinated aiming circle.
6. Measure a horizontal/vertical angle.
7. Perform hasty astronomic observations.
8. Compute hasty astronomic observations.
9. Displace aiming circle.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
2. TM 11-5820-1172-13 Operator and Maintenance Manual, Defense Advanced GPS Receiver (DAGR) Satellite Signals Navigation Set AN/PSN-13
3. TM 9-1290-262-10 Operator's Manual, Aiming Circle, M2 and M2A2
4. TO 31R4-2PSN13-1 Defense Advanced GPS Receiver (DAGR) satellite signals navigation set AN/PSN-13

0842-RADR-1500: Operate Automated Fire Support System

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0842

BILLETS: Radar Operator

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a functional automated workstation and network.

STANDARD: Inputting and processing data without error.

PERFORMANCE STEPS:

1. Load the system.
2. Initialize the system.
3. Activate the workstation.
4. Display the "current situation."
5. Build a planned communications configuration.
6. Edit the database.
7. Troubleshoot the system.
8. Perform proper shutdown.

REFERENCES:

1. Job Aid Current automated system job aides
-

0842-RADR-2001: Destroy radar equipment

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0842

BILLETS: Radar Operator

GRADES: CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a RADAR plan, equipment organic to a RADAR section, and the references.

STANDARD: Rendering the equipment useless IAW TM-11-5840-380-10 (SIMULATED destruction for training purposes).

PERFORMANCE STEPS:

1. Destroy classified materials.
2. Destroy RADAR components.
3. Destroy communications equipment.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. TM 11-5840-380-10 Radar Set AN/TPQ-36(V8) Operators Manual
 3. TM 750-244-2 Procedures for Destruction of Electronic Material to Prevent Enemy Use (Electronic Command)
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MOS 0844 INDIVIDUAL EVENTS

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CHAPTER 16

0844 MOS 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 tailors 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. ADMINISTRATIVE NOTES. T&R events are coded for ease of reference. Each event has a 4-4-4 digit identifier. The first four digits represent the occupational field or military occupational field (0844). The second four digits represent the functional or duty area. The last four digits represent the level, and identifier number of the event. Every individual event has an identifier number from 000 to 999.

16002. INDEX OF 1000-LEVEL INDIVIDUAL EVENTS

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0844-FDC-1002	Determine chart data	16-3
0844-FDC-1003	Determine site	16-4
0844-FDC-1004	Determine firing data (TFT)	16-4
0844-FDC-1005	Determine firing data (GFT)	16-5
0844-FDC-1006	Compute a low/high angle area fire mission	16-5
0844-FDC-1007	Operate primary automated system	16-6
0844-FDC-1008	Operate the secondary automated system	16-6

16003. 1000-LEVEL EVENTS

0844-FDC-1001: Construct a surveyed firing chart

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the standard plotting equipment, lower left-hand corner coordinates; azimuth of lay, grid coordinates for a designated adjusting piece, known point, all units, and targets.

STANDARD: Ensuring the chart is ready for use within 10 minutes after FDC receives survey data with units correctly labeled and plotted to within +/- 30 meters and the primary deflection and azimuth indices plotted to within +/- 3 mils.

PERFORMANCE STEPS:

1. Label grid lines.
2. Plot unit locations.
3. Plot targets.
4. Construct azimuth indices.
5. Construct deflection indices.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
-

0844-FDC-1002: Determine chart data

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a properly constructed firing chart, plotting equipment, an observer call for fire, observer OT direction and subsequent corrections.

STANDARD: Within +/- 30 meters for chart range, +/- 3 mils for chart deflection, and +/- 30 mils for Angle T.

PERFORMANCE STEPS:

1. Plot target location.
2. Determine and announce chart range.
3. Determine and announce chart deflection.
4. Determine and announce Angle T.
5. Plot subsequent corrections.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
-

0844-FDC-1003: Determine site

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given chart data and appropriate TFT/GST, and target altitude.

STANDARD: To the nearest whole mil.

PERFORMANCE STEPS:

1. Determine the vertical interval.
2. Determine angle of site.
3. Determine complimentary angle of site.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery
Manual Cannon Gunnery
-

0844-FDC-1004: Determine firing data (TFT)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Tabular Firing Table (TFT) with addendums, charge, chart range, chart deflection, and site.

STANDARD: Without error.

PERFORMANCE STEPS:

1. Select the appropriate Tabular Firing Tables (TFT) or addendum.
2. Enter the appropriate table.
3. Enter the appropriate column.
4. Determine fuze setting, if applicable.
5. Determine deflection.
6. Determine elevation.
7. Determine Time of Flight (TOF).
8. Determine quadrant elevation.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 2. TFT's and Addendums TFT's and Addendums
-

0844-FDC-1005: Determine firing data (GFT)

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given charge, chart range, chart deflection, site, and complete set of Graphical Firing Tables (GFTs) with or without a GFT setting applied.

STANDARD: Without error.

PERFORMANCE STEPS:

1. Select the appropriate Graphical Firing Table.
2. Determine fuze setting, if applicable.
3. Determine deflection.
4. Determine elevation.
5. Determine Time of Flight (TOF).
6. Determine quadrant elevation.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
-

0844-FDC-1006: Compute a low/high angle area fire mission

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a blank record of fire, manual computational means, a fire mission, and fire order.

STANDARD: Data is correctly determined.

PERFORMANCE STEPS:

1. Process an HE fire mission.
2. Process non-standard square weight fire mission.
3. Process an illumination mission.
4. Process a DPICM mission.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 2. TFT's and Addendums TFT's and Addendums
-

0844-FDC-1007: Operate primary automated system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a functional automated workstation and a functional network.

STANDARD: Inputting and processing data without error.

PERFORMANCE STEPS:

1. Load the system.
2. Initialize the system.
3. Activate the workstation.
4. Display the current situation.
5. Build a planned communications configuration.
6. Edit the database.
7. Conduct registration.
8. Conduct mission processing.
9. Conduct PGM mission.
10. Conduct fire planning.
11. Troubleshoot the system.
12. Perform proper shutdown procedures.

REFERENCES:

1. Job Aid Current automated system job aides
-

0844-FDC-1008: Operate the secondary automated system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an operational Back-Up Computer System (BUCS).

STANDARD: Inputting and processing data without error.

PERFORMANCE STEPS:

1. Initialize the system.
2. Build a planned communications configuration.
3. Edit the database.
4. Conduct mission processing.
5. Troubleshoot the system.
6. Perform proper shutdown procedures.

REFERENCES:

1. BUCS Job Aids

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: The secondary automated system may be utilized in degraded operations.

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0844-FDC-2002	Maintain a Fire Direction Center (FDC) journal	16-8
0844-FDC-2003	Determine MVVs	16-9
0844-FDC-2004	Compute low/high angle special fire missions	16-9
0844-FDC-2005	Manage Fire Plans	16-10
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0844-FDC-2007	Process a fire mission at a tactical FDC	16-11
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0844-FDC-2009	Construct a M-19 Plotting Board	16-12
0844-FDC-2010	Determine data with a M-19 Plotting Board	16-13

16005. 2000-LEVEL EVENTS

0844-FDC-2001: Maintain a tactical situation map

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a map, plotting equipment, a range azimuth fan, operations order, and maneuver graphics in either text or graphic form.

STANDARD: Accurately plot and maintain a situation map with the most current tactical information.

PERFORMANCE STEPS:

1. Establish Situation map.
2. Update the Situation map.

REFERENCES:

1. MCRP 5-2A/FM 101-5-1 Operational Terms and Graphics
 2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 3. MCWP 3-16.1 Artillery Operations
-

0844-FDC-2002: Maintain a Fire Direction Center (FDC) journal

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an operational FDC and a tactical scenario.

STANDARD: To depict a current, running record of all activities occurring in the FDC.

PERFORMANCE STEPS:

1. Record all applicable information.
2. Record Date/ Time Group for each entry.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: The journal will be maintained for a period of 30 days or at the commanders discretion.

0844-FDC-2003: Determine MVVs

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Assistant Operations Chief, Fire Support Man

GRADES: CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given DA Form 4982, Muzzle Velocity correction table (MVCT), first lot calibrated muzzle velocities, weapon data (Pullover Gauge reading and Equivalent Full Charge (EFCs).

STANDARD: To the nearest 0.1 M/S IAW MCWP3-16.4 and the MVCT.

PERFORMANCE STEPS:

1. Process M94 velocimeter data to obtain pullover gauge reading or compute EFC.
2. Determine 1st lot MVVs.
3. Determine subsequent lot MVVs.
4. Determine predicted MVVs.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 2. MVCT MUZZLE VELOCITY CORRECTIONS TABLE
-

0844-FDC-2004: Compute low/high angle special fire missions

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a blank record of fire, manual computational means, a fire mission, and fire order.

STANDARD: Data is correctly determined.

PERFORMANCE STEPS:

1. Process an Immediate Smoke Mission.
2. Process an Immediate Suppression Mission.
3. Process a Quick Smoke Mission.
4. Process a FASCAM Mission.

5. Process a Final Protective Fires Mission.
6. Process an Adjusted Final Protective Fires Mission.
7. Process a Rocket Assisted Projectile (RAP) Mission.
8. Process a sweep and/or zone fire mission.
9. Process simultaneous fire missions.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 2. TFT's and Addendums TFT's and Addendums
-

0844-FDC-2005: Manage Fire Plans

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an operational FDC, target list worksheet, a fire plan, and a situational map.

STANDARD: In order to execute future schedules of fire.

PERFORMANCE STEPS:

1. Receive target list.
2. Process target list.
3. Process fire plan.

REFERENCES:

1. Job Aid Current automated system job aides
 2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 3. MCWP 3-16.1 Artillery Operations
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0844-FDC-2006: Perform automated reporting of CBRN data

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a manual or automated means to process a mission, and a call for fire for a special mission type.

STANDARD: In order to provide artillery fires for supported units.

PERFORMANCE STEPS:

1. Process a One, Two or Four Point Illumination Mission.
2. Process a Continuous Illumination Mission.
3. Process a Coordinated Illumination Fire Mission.
4. Process a Range or Lateral Spread Fire Mission.
5. Process a Range and Lateral Spread Fire Mission.
6. Process an Immediate Smoke Mission.
7. Process an Immediate Suppression Mission.
8. Process a Quick Smoke Mission.
9. Process a FASCAM Mission.
10. Process a Final Protective Fires Mission.
11. Process an Adjusted Final Protective Fires Mission.
12. Process a Rocket Assisted Projectile (RAP) Mission.
13. Segment a target for at least two firing units.
14. Mass the Fires of the Regiment or Battalion.

REFERENCES:

1. Job Aid Current automated system job aides
2. MCWP 3-16.1 Artillery Operations
3. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
4. TFT's and Addendums TFT's and Addendums

0844-FDC-2009: Construct a M-19 Plotting Board

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a M-19 plotting board, Azimuth of Fire, grid coordinates for center of Battery, grid coordinates for a known point, observer, planned

target, and a target located by fire.

STANDARD: Board is ready for use within 7 minutes after FDC receives survey data with the following correctly and accurately plotted to within +/- 30 meters: battery locations, targets, and FO locations.

PERFORMANCE STEPS:

1. Label grid lines.
2. Plot unit locations.
3. Plot targets.

REFERENCES:

1. MCRP 3-15.2B Mortar Gunnery
-

0844-FDC-2010: Determine data with a M-19 Plotting Board

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0844

BILLETS: Fire Control Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING:

CONDITION: Given a SL-3 complete prepared M-19 plotting board, calls for fire, and subsequent corrections.

STANDARD: Within +/-30 meters (range) and +/-15 mils (deflection).

PERFORMANCE STEPS:

1. Plot target location.
2. Determine and announce chart range.
3. Determine and announce chart deflection.
4. Orient azimuth disk.
5. Plot subsequent corrections.

REFERENCES:

1. JREGTO 3570.1_ Standing Operating Procedures for Field Artillery Safety
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0847-SEN-1002	Perform survey computations	17-3
0847-SEN-1003	Conduct conventional survey operations	17-4
0847-SEN-1004	Perform astronomic observations	17-5
0847-SEN-1005	Conduct hand held GPS operations	17-5
0847-SEN-1006	Conduct hasty survey operations	17-6
0847-SEN-1007	Perform survey operations with an Inertial Navigation System (INS)	17-7
0847-SEN-1008	Conduct operations with a survey grade GPS	17-7
0847-SEN-1009	Perform conversion to common control operations	17-8
0847-SEN-1100	Determine significant weather changes	17-8
0847-SEN-1101	Conduct Electronic Meteorological Operations	17-9
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17003. 1000-LEVEL EVENTS

0847-SEN-1001: Provide required survey information to fire support assets

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a sensor plan, a list of current fire support assets, current map sheets, survey computation software, references, and trigonometric data.

STANDARD: Without error IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Determine required survey information for fire support assets.
2. Determine geodetic data for an area of operations.
3. Determine user defined data for geodetic data sets in required formats.
4. Determine map projections.
5. Determine grid and coordinate systems.

REFERENCES:

1. DMA TM 8358.1 (EDITION 1) DATUMS, ELLIPSOIDS, GRIDS, AND GRID REFERENCES SYSTEM
 2. DMA TR 8350.2 DoD World Geodetic System 1984
 3. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-1002: Perform survey computations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a handheld survey computer system, a computer with current GEOTRANS software, appropriate forms, a trig list, current map sheet, field recorders notes for traverse and intersection, references, and a check computer.

STANDARD: To an accuracy of 100%.

PERFORMANCE STEPS:

1. Compute azimuth and distance from coordinates with the handheld survey computer.
2. Compute conversion between Geographic Coordinates and UTM grids with the

- handheld survey computer.
3. Compute Universal Transverse Mercator (UTM) grid convergence with the handheld survey computer.
 4. Compute conversion from UTM grids to Geographic Coordinates with the handheld survey computer.
 5. Compute conversion of Zone-to-Zone transformations with the handheld survey computer.
 6. Compute traverse with the handheld survey computer.
 7. Compute intersection with the handheld survey computer.
 8. Perform conversions between coordinate and grid systems with GEOTRANS.
 9. Perform conversions between UTM grid and the Military Grid Reference System with GEOTRANS.
 10. Perform conversions between UTM grid and the Military Grid Reference System manually.
 11. Perform elevation shifts between Earth Gravity Models with GEOTRANS.
 12. Compute transformation from one UTM grid zone to another with GEOTRANS.
 13. Perform datum to datum transformation (horizontal) with GEOTRANS.

REFERENCES:

1. DMA TM 8358.1 (EDITION 1) DATUMS, ELLIPSOIDS, GRIDS, AND GRID REFERENCES SYSTEM
 2. DMA TR 8350.2 DoD World Geodetic System 1984
 3. Geographic Translator (GEOTRANS) Current Software User's Guide
 4. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-1003: Conduct conventional survey operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, equipment organic to a Sensor Section, and references.

STANDARD: To specifications listed in MCWP 3.16.7.

PERFORMANCE STEPS:

1. Perform operator's test and adjustments.
2. Emplace survey instruments.
3. Measure a 1 position angle.
4. Record a 1 position angle.
5. Measure a 2 position angle.
6. Record a 2 position angle.
7. Measure a multiple angle.
8. Record a multiple angle.
9. Input Parts Per Million (PPM) corrections into Electronic Distance

- Measuring Equipment (EDME).
10. Measure distance with Electronic Distance Measuring Equipment (EDME).
11. Displace survey instruments.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-1004: Perform astronomic observations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Sensor Section and observable celestial bodies.

STANDARD: Determining the azimuth within the specifications; recorders notes and computations performed IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Determine celestial bodies.
2. Emplace survey equipment.
3. Conduct hasty astronomic observation.
4. Conduct 5th order astronomic observation.
5. Conduct 4th order astronomic observation.
6. Record astronomic observations.
7. Compute astronomic observations.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-1005: Conduct hand held GPS operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a map sheet of an operational area, and a trig list.

STANDARD: Without error IAW TM 11-5820-1172-13.

PERFORMANCE STEPS:

1. Load GPS cryptographic fills.
2. Verify Setup of handheld GPS.
3. Enter user defined datums.
4. Determine position data.
5. Perform waypoint management.
6. Navigate in the DIRECT TO mode.
7. Create routes.
8. Navigate in the ROUTE mode.
9. Conduct datum transformations.
10. Conduct zone to zone transformations.
11. Compute azimuth and distance.
12. Conduct data transfer.

REFERENCES:

1. TM 11-5820-1172-13 Operator and Maintenance Manual, Defense Advanced GPS Receiver (DAGR) Satellite Signals Navigation Set AN/PSN-13
 2. TO 31R4-2PSN13-1 Defense Advanced GPS Receiver (DAGR) satellite signals navigation set AN/PSN-13
-

0847-SEN-1006: Conduct hasty survey operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a trig list, map sheet of the operational area, a declination station, and survey equipment organic to a sensor section.

STANDARD: To specifications listed in the MCWP 3-16.7.

PERFORMANCE STEPS:

1. Conduct Azimuth Determination System operations.
2. Emplace an aiming circle.
3. Declinate an aiming circle.
4. Determine a grid azimuth with a declinated aiming circle.
5. Measure a horizontal/vertical angle.
6. Displace aiming circle.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
2. TM 11-5820-1172-13 Operator and Maintenance Manual, Defense Advanced GPS Receiver (DAGR) Satellite Signals Navigation Set AN/PSN-13
3. TM 9-1290-262-10 Operator's Manual, Aiming Circle, M2 and M2A2

4. TO 31R4-2PSN13-1 Defense Advanced GPS Receiver (DAGR) satellite signals navigation set AN/PSN-13
-

0847-SEN-1007: Perform survey operations with an Inertial Navigation System (INS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, a trig list, equipment organic to a Sensor Section, and references.

STANDARD: Within specifications and recorded IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Perform initialization.
2. Perform update procedures.
3. Conduct one position mark.
4. Conduct a two position mark.
5. Perform auto-reflection operations.
6. Record field notes.
7. Perform data management.
8. Perform navigation.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
 2. TM 9-6675-349-12&P Operator and Unit Maintenance Manual for Improved Position and Azimuth Determining System (IPADS) M111
-

0847-SEN-1008: Conduct operations with a survey grade GPS

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, a trig list, equipment organic to a Sensor Section, and references.

STANDARD: Within specifications IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Set up the survey grade GPS for operations.
2. Perform absolute surveys.
3. Conduct real time kinematic/on the fly (RTK/OTF) survey.
4. Conduct data management.
5. Record field notes for RTK-OTF survey operations.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-1009: Perform conversion to common control operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given higher and lower echelon survey data, references, and a survey computer system.

STANDARD: To an accuracy of 100%.

PERFORMANCE STEPS:

1. Determine the need to convert.
2. Perform slide the grid method.
3. Perform swing the grid method.
4. Perform swing and slide the grid method.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-1100: Determine significant weather changes

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Sensor Section, and the references.

STANDARD: IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Determine frontal passages.
2. Perform surface observations.
3. Determine types of clouds.
4. Determine height of clouds.
5. Develop sounding schedule.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-1101: Conduct Electronic Meteorological Operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, equipment organic to a Sensor Section, an occupation site, and the references.

STANDARD: Producing valid NATO MET messages IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Emplace the Meteorological Station Group.
2. Perform initialization.
3. Perform surface observations.
4. Perform GPS radiosonde operations.
5. Perform Radio Direction Finder (RDF) radiosonde operations.
6. Perform digital communications.
7. Record MET messages.
8. Displace the Meteorological Station Group.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
 2. TM 10103A-13/1 Operator, Unit and Direct Support Maintenance Manual for the AN/TMQ-41 Met Measuring Set
-

0847-SEN-1102: Perform visual meteorological operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, equipment organic to a Sensor Section, and the references.

STANDARD: Given a Sensor Plan, equipment organic to a Sensor Section, and the references.

PERFORMANCE STEPS:

1. Emplace a meteorological theodolite.
2. Declinate the meteorological theodolite.
3. Perform surface observations.
4. Perform balloon inflation.
5. Track a pilot balloon.
6. Record observations.
7. Compute observation data.
8. Perform extrapolated meteorological procedures.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
 2. User's Manual Warren-Knight Instrument Company Electronic Mechanical Meteorological Theodolite
-

0847-SEN-1200: Conduct acoustic sensor planning

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a sensor plan, equipment organic to a Sensor Section, meteorological data, a map of the operational area, and the references.

STANDARD: Determining optimal positions.

PERFORMANCE STEPS:

1. Demonstrate the effects of sound propagation.
2. Load digital maps.
3. Load DTED.
4. Input meteorological data.
5. Build firing unit(s).

6. Build Sensor Posts.
7. Build Command Post.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. MCWP 3-16.7 Marine Artillery Survey Operations
 3. TM 11138A-OR Operators Manual Ground Counter Fire Sensor
-

0847-SEN-1201: Perform sensor post operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, equipment organic to a Sensor Section, and the references.

STANDARD: Ensuring command post can process acoustic events from the sensor post.

PERFORMANCE STEPS:

1. Perform site selection for Sensor Post.
2. Emplace Sensor Post.
3. Initialize Sensor Post.
4. Perform acoustic test.
5. Perform fault analysis.
6. Displace Sensor Post.
7. Record data.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. MCWP 3-16.7 Marine Artillery Survey Operations
 3. TM 11138A-OR Operators Manual Ground Counter Fire Sensor
-

0847-SEN-1202: Perform command post operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, equipment organic to a Sensor Section, and the references.

STANDARD: Ensuring system can process acoustic events.

PERFORMANCE STEPS:

1. Emplace Command Post.
2. Establish sensor post communications.
3. Process acoustic events.
4. Conduct adjust fire.
5. Manage Sensor Post health.
6. Displace Command Post.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
2. MCWP 3-16.7 Marine Artillery Survey Operations
3. TM 11138A-OR Operators Manual Ground Counter Fire Sensor

17004. INDEX OF 2000-LEVEL EVENTS

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0847-SEN-2003	Observe High-Burst/Mean-Point-Of-Impact Registration	17-14

17005. 2000-LEVEL EVENTS

0847-SEN-2000: Perform static operations with a survey grade GPS

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a sensor plan, equipment organic to a sensor section, a trig list, a map of the operational area, and the references.

STANDARD: Within specifications IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Measure raw GPS data.
2. Download raw data.
3. Process unadjusted data.
4. Process adjusted data.
5. Print required reports.

REFERENCES:

1. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-2001: Perform crater analysis

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a crater, shell fragments, equipment organic to your section, map of the operational area, and the references.

STANDARD: Determining the location of the crater and the direction to the firing platform within specifications for the equipment used.

PERFORMANCE STEPS:

1. Determine crater position.
2. Determine crater type.
3. Determine the direction.
4. Collect usable shell fragments.
5. Develop shell report.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. MCWP 3-16.1 Artillery Operations
 3. MCWP 3-16.3 Tactics, Techniques, and Procedures for Field Artillery Cannon Battery
 4. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
 5. MCWP 3-16.7 Marine Artillery Survey Operations
 6. ST 6-50-20 Battery Executive Officer's/ Platoon Leader's Handbook
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0847-SEN-2002: Conduct reconnaissance

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a movement order, map of the operations area, and equipment organic to a sensor section.

STANDARD: Rapidly enough to stay abreast of the tactical situation.

PERFORMANCE STEPS:

1. Verify friendly and enemy situation.
2. Coordinate the reconnaissance with maneuver units through the artillery headquarters.
3. Prepare equipment necessary to extend survey control.
4. Conduct route reconnaissance.
5. Conduct position reconnaissance of areas specified in the reconnaissance order.
6. Confirm suitability of artillery positions.
7. Conduct reconnaissance for supplementary positions as time permits.
8. Report any significant findings/deviations.

REFERENCES:

1. FM 3-25.26 Map Reading and Land Navigation
 2. FM 5-36 Route Reconnaissance and Classification
 3. MCWP 3-16.1 Artillery Operations
 4. MCWP 3-16.1A Tactics, Techniques, and Procedures for Target Acquisition
 5. MCWP 3-16.7 Marine Artillery Survey Operations
-

0847-SEN-2003: Observe High-Burst/Mean-Point-Of-Impact Registration

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0847

BILLETS: Sensor Support Man

GRADES: PVT, PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given equipment organic to a sensor section, two surveyed OPs, a map of the operational area, and the references.

STANDARD: Reporting each spotting within 15 seconds.

PERFORMANCE STEPS:

1. Occupy the OP.
2. Establish communications.

3. Orient instrument.
4. Observe impacts.
5. Report spotting.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
 3. MCWP 3-16.7 Marine Artillery Survey Operations
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ARILLERY T&R MANUAL

CHAPTER 18

MOS 0848 INDIVIDUAL EVENTS

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ARTILLERY T&R MANUAL

CHAPTER 18

0848 MOS INDIVIDUAL EVENTS

18000. 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 tailors 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.

18001. ADMINISTRATIVE NOTES. T&R events are coded for ease of reference. Each event has a 4-4-4 digit identifier. The first four digits represent the occupational field or military occupational field (0848). The second four digits represent the functional or duty area. The last four digits represent the level, and identifier number of the event. Every individual event has an identifier number from 000 to 999.

18002. INDEX OF INDIVIDUAL EVENTS

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0848-FDC-2010	Supervise the conduct of a registration	18-9
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0848-SEN-2503	Supervise Geospatial Information Center (GIC) operations	18-20
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18003. INDIVIDUAL EVENTS

0848-COC-2508: Supervise Geospatial Information Center (GIC) Operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Geospatial Chief, Sensor Chief

GRADES: SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a Sensor Plan, Combat Operations Center, equipment organic to the Target Acquisition Platoon, and the references.

STANDARD: IAW the Sensor Plan.

PERFORMANCE STEPS:

1. Supervise GIC emplacement.
2. Manage Sensor Support team operations.
3. Maintain the common grid.
4. Supervise Mapping, Charting, and Geodesy operations.
5. Manage Sensor data.
6. Supervise communications.
7. Supervise GIC displacement

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
2. MCWP 3-16.1A Tactics, Techniques, and Procedures for Target Acquisition
3. MCWP 3-16.7 Marine Artillery Survey Operations

0848-FDC-2001: Apply the principle of artillery ballistics to artillery fires

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

DESCRIPTION: The Marine must define and explain the causes and effects of each term, and its relationship to artillery accuracy and massing of fires.

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a list of artillery ballistic terms and the references.

STANDARD: In order to define and explain the causes and effects of each term and its relationship to artillery accuracy and massing of fires without error.

PERFORMANCE STEPS:

1. Define Interior Ballistics and its effect on accuracy and massing fires.
2. Define Transitional Ballistics.
3. Define Exterior Ballistics and its effect on accuracy and massing fires.
4. Define Dispersion and Probability.
5. Define Inherent Error.
6. Define the Mean Point of Impact.
7. Define Probable Error.
8. Define Range Probable Error.
9. Define Deflection Probable Error.
10. Define Time to Burst Probable Error.
11. Define Height of Burst Probable Error.
12. Define Fork.
13. Define Dispersion Zones.
14. Demonstrate the usage of the Assurance Table in determining Registration Validity.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
2. TFT's and Addendums TFT's and Addendums

0848-FDC-2002: Supervise the construction of a surveyed firing chart

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 1 month

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a map portraying an area of operations, position data card, firing chart, and Fire Direction Center (FDC) plotting equipment.

STANDARD: Ensuring the chart is ready for use within 10 minutes after FDC receives survey data with units correctly labeled and plotted to within +/- 30 meters and the primary deflection and azimuth indices plotted to within +/- 3 mils.

PERFORMANCE STEPS:

1. Determine the azimuth of lay.
2. Determine the lower left-hand corner coordinates.
3. Provide the data to the chart operator.
4. Verify the construction of the firing chart.
5. Direct correction of errors.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery

0848-FDC-2003: Determine firing data (TFT)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Tabular Firing Table (TFT) with addendums, charge, chart range, chart deflection, and site.

STANDARD: Without error.

PERFORMANCE STEPS:

1. Select the appropriate Tabular Firing Tables (TFT) or addendum.
2. Enter the appropriate table.
3. Enter the appropriate column.
4. Determine fuze setting, if applicable.
5. Determine deflection.
6. Determine elevation.
7. Determine Time of Flight (TOF).

8. Determine quadrant elevation.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
2. TFT's and Addendums TFT's and Addendums

0848-FDC-2004: Determine firing data (GFT)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given charge, chart range, chart deflection, site, and complete set of Graphical Firing Tables (GFTs) with or without a GFT setting applied.

STANDARD: Without error.

PERFORMANCE STEPS:

1. Select the appropriate Graphical Firing Table.
2. Determine deflection.
3. Determine elevation.
4. Determine Time of Flight (TOF).
5. Determine quadrant elevation.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery

0848-FDC-2005: Verify the computation of site

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given chart data and appropriate TFT/GST, and target altitude.

STANDARD: To the nearest whole mil.

PERFORMANCE STEPS:

1. Verify the vertical interval.
2. Verify the angle of site.
3. Verify the complimentary angle of site.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 2. TFT's and Addendums TFT's and Addendums
-

0848-FDC-2006: Verify MVVs

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given DA Form 4982, Muzzle velocity Correction Table (MVCT), first lot calibrated muzzle velocities, weapon data [Pullover Gauge reading and Equivalent Full Charge (EFCs)].

STANDARD: To the nearest 0.1 M/S IAW MCWP3-16.4 and the MVCT.

PERFORMANCE STEPS:

1. Supervise the processing of M94 velocimeter data.
2. Supervise the determination of 1st lot MVVs.
3. Supervise the determination of subsequent lot MVVs.
4. Supervise the determination of predicted MVVs.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 2. MVCT MUZZLE VELOCITY CORRECTIONS TABLE
-

0848-FDC-2007: Manage fire plans

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an operational FDC, target list worksheet, a fire plan, and a situational map.

STANDARD: In order to execute future schedules of fire.

PERFORMANCE STEPS:

1. Receive target list.
2. Verify target list.
3. Supervise fire plan processing.

REFERENCES:

1. Job Aid Current automated system job aides
2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
3. MCWP 3-16.1 Artillery Operations

0848-FDC-2008: Supervise operation of the primary automated system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a functional automated workstation and a functional network.

STANDARD: In order to ensure the processing of data without error.

PERFORMANCE STEPS:

1. Supervise system loading.
2. Supervise system initialization.
3. Supervise workstation activation.
4. Verify current situation.
5. Verify the construction of a planned communications configuration.
6. Supervise the conduct of mission processing.
7. Supervise the conduct of a PGM mission.
8. Supervise the conduct of fire planning.
9. Supervise troubleshooting of the system.
10. Verify proper shutdown procedures.

REFERENCES:

1. Job Aid Current automated system job aides

0848-FDC-2009: Supervise the operation of the secondary automated system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an operational Back-Up Computer System (BUCS).

STANDARD: In order to ensure the processing of data without error.

PERFORMANCE STEPS:

1. Supervise system initialization.
2. Supervise construction of a planned communications configuration.
3. Verify the database.
4. Supervise mission processing.
5. Supervise troubleshooting.
6. Verify proper shutdown.

REFERENCES:

1. BUCS Job Aids

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: The secondary automated system may be utilized in degraded operations.

0848-FDC-2010: Supervise the conduct of a registration

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an FDC with manual computational means, observer, a registration fire order.

STANDARD: To account for all non-standard conditions.

PERFORMANCE STEPS:

1. Conduct a precision registration.
2. Conduct a radar registration.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery

2. TFT's and Addendums TFT's and Addendums

0848-FDC-2011: Supervise a low/high angle area fire mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a blank record of fire, manual computational means, a fire mission, and fire order.

STANDARD: Data is correctly determined.

PERFORMANCE STEPS:

1. Supervise an HE fire mission.
2. Supervise a non-standard square weight fire mission.
3. Supervise an illumination mission.
4. Supervise a DPICM mission.
5. Supervise subsequent corrections.
6. Supervise an Immediate Smoke Mission.
7. Supervise an Immediate Suppression Mission.
8. Supervise a Quick Smoke Mission.
9. Supervise a FASCAM Mission (Automated only).
10. Supervise a Final Protective Fires Mission.
11. Supervise an Adjusted Final Protective Fires Mission.
12. Supervise a Rocket Assisted Projectile (RAP) Mission.
13. Supervise a sweep and/or zone fire mission.
14. Supervise simultaneous fire missions.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 2. TFT's and Addendums TFT's and Addendums
-

0848-FDC-2012: Troubleshoot errors between primary and secondary means of computation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an operational FDC, tactical scenario, and an error in the firing data solution.

STANDARD: In order to obtain usable firing data.

PERFORMANCE STEPS:

1. Verify primary to back-up check.
2. Verify target location.
3. Verify elevation on situation map.
4. Verify Battery location.
5. Verify observer's location.
6. Verify Met.
7. Verify muzzle velocity information (historical or measured).
8. Verify GFT settings.
9. Verify propellant temperature.
10. Verify ammo count and weights.
11. Verify TGPCs (if applicable).
12. Verify Azimuth of Lay.
13. Verify XO Minimum Quadrant Elevation.

REFERENCES:

1. Job Aid Current automated system job aides
2. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery.
Manual Cannon Gunnery
3. TFT's and Addendums TFT's and Addendums

0848-FDC-2013: Supervise an automated mission converted to manual procedures

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an operational Fire Direction Center (FDC) and an automated fire mission in progress.

STANDARD: In order to announce firing data to the gun line within 60 seconds.

PERFORMANCE STEPS:

1. Select base piece.
2. Determine base piece firing data for a time fuze projectile to a target at the same altitude as the origin and on the azimuth of lay.
3. Apply TGPCs.
4. Prepare to process subsequent corrections.

REFERENCES:

1. Job Aid Current automated system job aides
 2. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 3. TFT's and Addendums TFT's and Addendums
-

0848-FDC-2014: Compute basic safety data

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an operational FDC, XO's report, left and right limits for azimuth/deflection (each dog leg), min and max range (each dog leg).

STANDARD: To provide safe artillery fires IAW current JRegtO P3570.XX.

PERFORMANCE STEPS:

1. Construct SDZ.
2. Construct range safety card.
3. Construct safety diagram.
4. Compute safety data.
5. Verify XOs min QE.
6. Construct safety Ts.
7. Apply safety data to situation map and firing charts.
8. Update safety as required.

REFERENCES:

1. DA PAM 385-63 Department of the Army Range Safety
 2. JREGTO 3570.1 Standing Operating Procedures for Field Artillery Safety
 3. Job Aid Current automated system job aides
 4. Local Range Regulations
 5. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 6. TFT's and Addendums TFT's and Addendums
-

0848-FDC-2015: Perform regiment/battalion mass mission

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an accurately located target and multiple firing agencies.

STANDARD: To achieve effects IAW commander's guidance and munitions affects tables.

PERFORMANCE STEPS:

1. Check situation map for possible fire support coordination.
2. Conduct de-confliction as required.
3. Announce Fire order.
4. Transmit Fire order.
5. Transmit the MTO.
6. Execute the OPS Chief.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
-

0848-FDC-2016: Conduct an untrained observer fire mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a situation in which an untrained observer has submitted a request for fire, a degree-mil conversion table, and a situation map.

STANDARD: In order to achieve effects on target.

PERFORMANCE STEPS:

1. Receive the CFF.
2. Obtain the target location and description.
3. Obtain the observer location.
4. Obtain sufficient information from the observer to allow an effective engagement of the target.

REFERENCES:

1. Job Aid Current automated system job aides
 2. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
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0848-FDC-2017: Verify replot targets and replot data (FZ Quick and VT)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the deflection, the Quadrant Elevation (QE) and total site fired, a Graphical Firing Table (GFT) with a GFT setting applied, the successive site determined by the chart operator, and the target number.

STANDARD: Verify data is determined without error.

PERFORMANCE STEPS:

1. Verify the replot deflection.
2. Verify the replot grid and altitude.
3. Verify the replot grid and altitude using fuze VT.
4. Verify refinement data (fuze time) with Height of Burst (HOB) correction.

REFERENCES:

1. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery

0848-FDC-2018: Supervise the maintenance of a tactical situation map

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Operations Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an operational FDC, a map, plotting equipment, a range azimuth fan, operations order, and maneuver graphics in either text or graphic form.

STANDARD: In order to track the most current tactical information.

PERFORMANCE STEPS:

1. Verify the establishment of the situation map.
2. Verify updates to the Situation map.

REFERENCES:

1. MCRP 5-2A/FM 101-5-1 Operational Terms and Graphics

2. Verify the determination of chart range.
3. Verify the determination of chart deflection.
4. Verify correct orientation of azimuth disk.
5. Verify subsequent corrections are plotted correctly.

REFERENCES:

1. JREGTO 3570.1_ Standing Operating Procedures for Field Artillery Safety
-

0848-RADR-2400: Supervise RADAR Operations

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0848

BILLETS: Radar Employment Chief, Radar Team Chief

GRADES: SSGT, GYSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a RADAR Plan, a RADAR deployment order, equipment organic to the RADAR Section, map of operational area, and the references.

STANDARD: Verifying operations IAW MCRP 3-16.1A.

PERFORMANCE STEPS:

1. Supervise the maintenance of equipment.
2. Conduct reconnaissance.
3. Select site.
4. Supervise the preparation for operations.
5. Supervise the emplacement of the RADAR.
6. Supervise acquisition operations.
7. Supervise position improvement.
8. Supervise displacement.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
 2. MCWP 3-16.1A Tactics, Techniques, and Procedures for Target Acquisition
 3. TM 11-5840-380-10 Radar Set AN/TPQ-36 (V8) Operators Manual
 4. TM 11-5840-389-10 LCMR Operator's Manual
-

0848-RADR-2500: Supervise Target Processing Center (TPC) Operations

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0848

BILLETS: Radar Employment Chief, TPC Chief

GRADES: SSGT, GYSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a RADAR Plan, equipment organic to the Target Acquisition Platoon, Command Operations Center, and the references.

STANDARD: IAW the RADAR Plan.

PERFORMANCE STEPS:

1. Supervise TPC emplacement.
2. Manage RADAR team operations.
3. Supervise acquisition processing.
4. Supervise communications.
5. Supervise TPC displacement.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
 2. MCWP 3-16.1A Tactics, Techniques, and Procedures for Target Acquisition
 3. TM 11-5840-380-10 Radar Set AN/TPQ-36(V8) Operators Manual
 4. TM 11-5840-389-10 LCMR Operator's Manual
-

0848-SEN-2201: Maintain the meteorological section's expendable inventory

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 1 month

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Section and SL-3 inventory control sheets.

STANDARD: Ensuring sustained 30-day operations.

PERFORMANCE STEPS:

1. Determine the amount of expendables.
2. Supervise the proper rotation of all dated expendables.
3. Supervise the proper storage of expendable items.
4. Ensure requisition of expendable item resupply at designated levels.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
 2. MCWP 3-16.7 Marine Artillery Survey Operations
 3. SL-3-10269A Components List for Meteorological Station Group AN/TMQ-49
-

0848-SEN-2202: Supervise meteorological operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, equipment organic to the Sensor Section, map of operational area, and the references.

STANDARD: IAW the Sensor plan.

PERFORMANCE STEPS:

1. Select sites.
2. Supervise the preparation of for operations.
3. Supervise the emplacement of the Meteorological Station Group (MSG).
4. Supervise acquiring and recording surface Meteorological data.
5. Supervise the operations of the MSG.
6. Supervise visual met operations.
7. Verify MET message validity.
8. Supervise the maintenance of equipment.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
 2. MCWP 3-16.4 Tactics, Techniques and Procedures for the Field Artillery Manual Cannon Gunnery
 3. MCWP 3-16.7 Marine Artillery Survey Operations
-

0848-SEN-2203: Coordinate Meteorological Sounding Schedule

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an operation order, a sensor plan, equipment organic to the Sensor Section, Naval Observatory Sunrise/Sunset chart, and the references.

STANDARD: Providing data IAW the sensor plan.

PERFORMANCE STEPS:

1. Determine night, transition, and afternoon hours.
2. Determine significant weather changes.
3. Determine frontal passages.
4. Determine terrain validity.
5. Develop sounding plan.

6. Implement flight schedule.
7. Revise schedule based on weather changes.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
 2. MCWP 3-16.7 Marine Artillery Survey Operations
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0848-SEN-2500: Supervise survey operations

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given an Operations Order, Sensor Plan, equipment organic to a sensor section, and the references.

STANDARD: Verifying survey IAW MCWP 3-16.7.

PERFORMANCE STEPS:

1. Perform sensor planning.
2. Supervise preparation of equipment.
3. Supervise reconnaissance.
4. Supervise the assumption of survey control.
5. Supervise survey procedures.
6. Verify survey data.
7. Verify survey data distribution.

REFERENCES:

1. DMA TM 8358.1 (EDITION 1) DATUMS, ELLIPSOIDS, GRIDS, AND GRID REFERENCES SYSTEM
 2. DMA TR 8350.2 DoD World Geodetic System 1984
 3. MCWP 3-16.1 Artillery Operations
 4. MCWP 3-16.1A Tactics, Techniques, and Procedures for Target Acquisition
 5. MCWP 3-16.7 Marine Artillery Survey Operations
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0848-SEN-2502: Supervise acoustic sensor operations

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, map of operational area, equipment organic to the Sensor Section, and the references.

STANDARD: Verifying acoustic operations IAW the Sensor Plan.

PERFORMANCE STEPS:

1. Plan acoustic sensor location.
2. Conduct reconnaissance.
3. Supervise the preparation for operations.
4. Supervise Command Post emplacement.
5. Verify Sensor Post health.
6. Verify Sensor post data.
7. Supervise acoustic processing operations.
8. Supervise position improvement.
9. Supervise displacement.
10. Supervise the maintenance of equipment.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. MCWP 3-16.7 Marine Artillery Survey Operations
 3. TM 11138A-OR Operators Manual Ground Counter Fire Sensor
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0848-SEN-2503: Supervise Geospatial Information Center (GIC) operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Geospatial Chief, Sensor Chief

GRADES: SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a Sensor Plan, Combat Operations Center, equipment organic to the Target Acquisition Platoon, and the references.

STANDARD: IAW the Sensor Plan.

PERFORMANCE STEPS:

1. Supervise GIC emplacement.
2. Manage Sensor Support team operations.
3. Maintain the common grid.
4. Supervise Mapping, Charting, and Geodesy operations.
5. Manage Sensor data.
6. Supervise communications.
7. Supervise GIC displacement.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. MCWP 3-16.1 Artillery Operations
 3. MCWP 3-16.7 Marine Artillery Survey Operations
-

0848-SEN-2504: Conduct reconnaissance

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an operation or fragmentary order, a briefing on the overall operation, map of the area of operations, and a complete sensor section with organic and attached assets.

STANDARD: Rapidly enough to stay abreast of the tactical situation.

PERFORMANCE STEPS:

1. Verify friendly and enemy situation.
2. Coordinate the reconnaissance with maneuver units through the artillery headquarters.
3. Conduct a map and imagery reconnaissance.
4. Prepare equipment necessary to extend survey control.
5. Conduct route reconnaissance.
6. Conduct position reconnaissance of areas specified in the reconnaissance order.
7. Confirm suitability of artillery positions.
8. Conduct reconnaissance for supplementary positions as time permits.
9. Report any significant findings/deviations.

REFERENCES:

1. FM 3-25.26 Map Reading and Land Navigation
 2. FM 5-36 Route Reconnaissance and Classification
 3. MCWP 3-16.1 Artillery Operations
 4. MCWP 3-16.7 Marine Artillery Survey Operations
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0848-SEN-2506: Perform Crater Analysis

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a crater, shell fragments, equipment organic to your section, map of the operational area, and the references.

STANDARD: Determining the location of the crater and the direction to the firing platform within specifications for the equipment used.

PERFORMANCE STEPS:

1. Determine crater position.
2. Determine crater type.
3. Determine the direction.
4. Collect usable shell fragments.
5. Develop shell report.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
 2. MCWP 3-16.1A Tactics, Techniques, and Procedures for Target Acquisition
 3. MCWP 3-16.3 Tactics, Techniques, and Procedures for Field Artillery Cannon Battery
 4. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
 5. MCWP 3-16.7 Marine Artillery Survey Operations
 6. ST 6-50-20 Battery Executive Officer's/ Platoon Leader's Handbook
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0848-SEN-2507: Supervise Ground Counter Fire System Operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0848

BILLETS: Sensor Chief

GRADES: SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a Sensor Plan, map of operational area, equipment organic to the Sensor Section, and the references.

STANDARD: Verifying acoustic operations IAW the Sensor Plan.

PERFORMANCE STEPS:

1. Plan acoustic sensor location.
2. Conduct reconnaissance.
3. Supervise the preparation for operations.
4. Supervise Command Post emplacement.
5. Verify Sensor Post health.
6. Verify Sensor post data.
7. Supervise acoustic processing operations.
8. Supervise position improvement.

9. Supervise displacement.
10. Supervise the maintenance of equipment.

REFERENCES:

1. MCRP 3-16.1A Tactics, Techniques and Procedures for Field Artillery Target Acquisition
 2. MCWP 3-16.7 Marine Artillery Survey Operations
 3. TM 11138A-OR Operators Manual Ground Counter Fire Sensor
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ARTILLERY T&R MANUAL

CHAPTER 19

MOS 0861 INDIVIDUAL EVENTS

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ARTILLERY T&R MANUAL

CHAPTER 19

MOS 0861 INDIVIDUAL EVENTS

19000. INTRODUCTION. This T&R Manual review has incorporated current changes fire support doctrine which encompass the the following terms:

1. Fire Support Officer (FSO)
2. Fire Support Chief (FSC)
3. Fire Support Man
4. Joint Forward Observer(JFO)
5. Joint Terminal Attack Controller (JTAC)
6. Fire Support Team (FST)

19001. PURPOSE. The purpose of 1000-level training is to provide the knowledge and skills required to perform as a basically trained, MOS qualified Marine. The 2000-level events are career progression training items that cannot be trained to by the formal school due to time or resource constraints. The 2000-level events are trained by either MOJT, distance learning PME, or resident, career progression courses.

19002. EVENT CODING. Like collective events, Individual Training Standards (ITS) are depicted with a 12 field alphanumeric system, i.e. XXXX-XXXX-XXXX. This chapter utilizes the following methodology:

1. Field one - Each event in this chapter begins with the MOS in which the skill is intended to be performed.

2. Field two - This field contains alpha characters indicating a functional area. Clarification on some functional area codes:

a. **OBS** - Refers to the Observed Fire individual tasks conducted by the Fire Support Man (MOS 0861), executing duties as part of a Fire Support Team (FST).

b. **NSFS** - Refers to the Naval Surface Fire Support (NSFS) individual tasks conducted by the Fire Support Man (MOS 0861), executing duties as part of FST.

c. **FSCC** - Refers to the Fire Support Coordination Center tasks conducted by the Fire Support Man (MOS 0861), executing duties as part of a FST.

d. **MAGTF** - Refers to the Force Fires Coordination Center/Effects Coordination Center tasks conducted by the Fire Support Man (MOS 0861), executing duties as part of the FFCC/FECC.

e. **PLAN** - Refers to the fire support planning tasks conducted by the Fire Support Man (MOS 0861), in support of a GCE or MAGTF FSCC/FFCC.

f. **TGT** - Refers to the targeting tasks conducted by the Fire Support Man (MOS 0861), executing duties as part of a GCE FSCC or MAGTF FFCC/FECC.

g. **FSC2** - Refers to the Fire Support Command and Control (C2) tasks conducted by the Fire Support Man (MOS 0861), executing duties as part of a member of a FST, FSCC, or FFCC/FECC.

3. Field three - This field provides the level (1000 or 2000) of each task, as follows:

a. 1000 Level - Individual Core Level tasks.

b. 2000 Level - Individual Core (plus) Level tasks which are MOJT, DL, or career progression tasks.

19003. CONDITION. Fire support events in this chapter contain a condition statement which addresses "Equipment organic to the Fire Support Man." This statement refers to the following (among others):

- a. Individual Tactical Equipment
- b. Writing utensils and note pad
- c. Topographical map
- d. Protractor
- e. OF Fan
- f. Binoculars
- g. Compass
- h. Digital entry device
- i. LASER range-finder/designator
- j. GPS device
- k. Communications equipment

12004. STANDARD. Every effort is being made to make the T&R Manual system generic. To that end, the term "Observer Digital Terminal (ODT)" refers to the current version of hardware and software fielded to observers in the operating forces and formal school. The term "appropriate fires C2 system" refers to the current version of hardware and software fielded to Fire Direction Centers and Fire Support Coordination Centers in the operating forces and formal school.

19005. ADMINISTRATIVE NOTES

1. As applicable, events contain a paragraph that describes internal and external Support Requirements the unit and Marines will need to complete the event. Ranges/Training Areas are described in this section with a plain-language description. They are also described using the Range/Facility Codes that identify the type of range and/or training area needed to accomplish the Event. Marines can use the codes to find information about available ranges at their geographic location by using the web-based Range/Training Area Management System (see TECOM website). Intent of the Range/Training Area

Code is to relate ranges to readiness by identifying those events that cannot be accomplished at a certain location due to lack of ranges.

2. Due to the cost and decreasing availability of ammunition, firing platforms, and ranges, many fire support events in this chapter [e.g., call for fire (CFF)] that may be conducted with, or augmented by, existing simulation systems are addressed with the appropriate category of program of record simulation devices.

a. Category I. Immersive simulation incorporating a domed visual environment allowing the user to utilize the same or similar equipment they will use during live missions. In accordance with the current JCAS AP MOA, controls conducted in a Category I simulator may substitute live controls. Example: Supporting Arms Virtual Trainer (SAVT).

b. Category II. PC based procedural trainer that may utilize front projection or helmet mounted display (HMD). Example: Deployable Virtual Training Environment (DVTE).

3. A task event was created "Perform the duties of a Fire Support Man at the Company Level." This Marine's (MOS 0861) primary responsibility is to serve as the company JTAC. He is also the senior enlisted 0861 on the FST and will also conduct the duties of a FST member in support of his assigned element.

4. A task event was created "Perform the duties of a Fire Support Man at the Platoon Level." This Marine's (MOS 0861) primary responsibility is to serve as the company JFO. He also conducts the duties of a Fire Support Man in support of his assigned element.

12006. PREREQUISITES. For 1000-level events, refer to the appropriate formal school Program of Instruction. All 2000-level events assume the Marine is a basic trained, graduate of the appropriate formal school.

19007. INDEX OF 1000-LEVEL EVENTS

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19008. 1000-LEVEL EVENTS

0861-OBS-1000: Locate data to a point on a map

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETTS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: Determine the 8 digit grid in the correct MGRS format, the Geographic Coordinate in the D.M.S format to within +/- 10 seconds and elevation to within half the contour interval.

PERFORMANCE STEPS:

1. Determine eight-digit coordinates to the point on the map.
2. Determine the geographic coordinate to the point on the map.
3. Determine the elevation to the point on the map.

REFERENCES:

1. FM 3-25.26 Map Reading and Land Navigation

SUPPORT REQUIREMENTS:

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

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

Distance Learning Product(s): MCI 0381c, Land Navigation
Performance Support Tool(s): MCI Job Aid: Land Navigation Handbook.

0861-OBS-1005: Perform self location

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

GRADES: PFC, LCPL, CPL, SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a topographical map, an operational LASER Rangefinder (LRF), a protractor, a compass, a map pen and individual load bearing equipment.

STANDARD: To determine the observers position to within 100 meters using manual and automated methods.

PERFORMANCE STEPS:

1. Orient the map.
2. Identify reference points on the map.
3. Determine grid azimuths to reference points or HE burst.
4. Plot back azimuths.
5. Determine self location via one point resection.
6. Determine self location via two point resection.
7. Verify Self location data via the inspection method.

REFERENCES:

1. FM 3-25.26 Map Reading and Land Navigation
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17412 Land Navigation Course

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

Distance Learning Product(s): MCI 0381c, Land Navigation
Performance Support Tool(s): MCI Job Aid: Land Navigation Handbook

0861-OBS-1010: Perform land navigation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, individual field equipment, and a designated set of points to navigate to during day and night.

STANDARD: In order to traverse the course locating five of seven designated points during the day and locating three of four designated points during the night.

PERFORMANCE STEPS:

1. Determine pace count.
2. Determine routing information (designated point location, azimuth, and distance).
3. Navigate using map and compass.
4. Perform a deliberate offset, as required.
5. Maintain awareness of location at all times.
6. Perform one-point or two-point resection, as required.

REFERENCES:

1. FM 3-25.26 Map Reading and Land Navigation
2. GTA 5-2-12 Protractor with Coordinate Scale

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17412 Land Navigation Course

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Each designated land navigation point to be used should be located to at least an eight-digit grid coordinate.

2. The location of each designated land navigation point should be verified prior to use in initial or sustainment training.
3. Terrain and training area dependent, the day course should be no less than 4,000 meters in length.
4. Terrain and training area dependent, the night course should be no less than 1,500 meters in length.
5. Distance Learning Product(s): MCI 0381c, Land Navigation
Performance Support Tool(s): MCI Job Aid: Land Navigation Handbook.

0861-OBS-1015: Prepare a terrain sketch

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETTS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to the Fire Support Man, and an information sheet containing a zone of observation and responsibility.

STANDARD: To accurately depict the zone of responsibility with appropriate labels.

PERFORMANCE STEPS:

1. Draw the skyline (horizon), and prominent objects or features.
2. Identify the Center Reference Point (CRP).
3. Identify additional reference points.
4. Employ labeling Ts to depict direction, distance, altitude, and Grid to prominent objects or features.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Distance Learning Product(s): MCI 028, Introduction to Combat Intelligence, 0332, Reconnaissance Marine, and 0861, Basic Forward Observation Procedures.

0861-OBS-1020: Prepare an observation post

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to the Fire Support Man, an information sheet containing a situation overlay and a zone of observation.

STANDARD: To permit observation of the area of operations, from a position that accommodates constant communications and facilitates the adjustment of fires.

PERFORMANCE STEPS:

1. Perform pre-occupation reconnaissance (map reconnaissance, aerial photos, or the planning functions of tactical C2 systems)
2. Conduct deliberate occupation and refine location based on tactical situation ensuring optimal observation and does not inhibit the employment of laser systems.
3. Consider mutual support and coordination within the maneuver element if more than one laser designator is in use.
4. Establish communications and report OP location to higher HQ.
5. Construct a terrain sketch.
6. Prepare visibility diagram.
7. Camouflage and cover the position.
8. Select an alternate OP.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17413 Field Training Area
Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Distance Learning Product(s): MCI 028, Introduction to Combat Intelligence, 0332, Reconnaissance Marine, 0335, Infantry Patrolling, 0381, Land Navigation, 0385, Land Navigation (Web), and 0861, Basic Forward Observation Procedures.

0861-OBS-1025: Locate a target

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to the Fire Support Man

STANDARD: In order to transmit target location data within 60 seconds of identifying the target; ensuring location data is within 200 meters of actual target location, direction to the target is expressed to the nearest 10 mils and within 50 mils of actual direction, elevation of the target is determined and expressed to the nearest 5 meters when the elevation change is greater than 35 meters from the observer location or known point, and distance is expressed to the nearest 100 meters.

PERFORMANCE STEPS:

1. Orient the map.
2. Place Observed Fire Fan on the map.
3. Locate a target by Grid method.
4. Locate a target by Polar Plot.
5. Locate a target by Shift from Known Point.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Distance Learning Product(s): MCI 0381, Land Navigation, 0385, Land Navigation (Web), and 0861, Basic Forward Observation Procedures.

0861-OBS-1030: Locate a target using digital systems

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to the Fire Support Man.

STANDARD: In order to transmit target location data within 60 seconds of identifying the target; ensuring location data is within 50 meters of actual target location, direction to the target is expressed to the nearest 1 mil, vertical angle of the target is determined to the nearest 1 mil, and distance is expressed to the nearest 10 meters (for LASER Polar mission).

PERFORMANCE STEPS:

1. Perform self-location by digital means.
2. Locate a target by Grid method.
3. Locate a target by LASER Polar.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Distance Learning Product(s): MCI 0381, Land Navigation, 0385, Land Navigation (Web), and 0861, Basic Forward Observation Procedures.

0861-OBS-1035: Conduct an adjust fire mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the equipment organic to the Fire Support Man, and a terrain sketch.

STANDARD: Initiate the call for fire within 60 seconds of target identification, announce subsequent corrections within 15 seconds of the burst (deviation to the nearest 10 meters, range to the nearest 100 meters, and HOB corrections to the nearest 5 meters), and enter fire for effect (FFE) within +/-50 meters of the target using no more than three adjusting rounds.

PERFORMANCE STEPS:

1. Transmit the complete Call for Fire (CFF).
2. Determine and transmit OT direction with or before the first correction, when using the grid method of target location.
3. Transmit subsequent corrections in the proper sequence.
4. Transmit refinement data (if any), Record as Target (if desired), End of Mission (EOM), and surveillance.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosi	10 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine

D544 Projectile, 155mm High Explosive M10	10 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	10 fuses per Marine
N523 Primer, Percussion M82	10 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and manual methods.

Adjust fires procedures:

1. If the PE in range is greater than or equal to 30 meters, the observer may call FFE when a 200 meter bracket is split.
2. When an observer is equipped with a laser range finder, one-round adjust missions should be standard.

Simulation support: 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.

Distance Learning Product(s): 0861, Basic Forward Observation Procedures.

0861-OBS-1040: Adjust fire with the laser range finder

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the equipment organic to the Fire Support Man a designated target, and communications with the appropriate agency.

STANDARD: Initiate the call for fire within 60 seconds of target identification, announce subsequent corrections within 15 seconds of the burst (direction to the nearest 1 mil, distance to the nearest 10 meters, and vertical angle to the nearest 1 mil), and enter fire for effect (FFE) after 1st round burst.

PERFORMANCE STEPS:

1. Perform pre-operations checks on Laser Range Finder and global positioning system devices.
2. Conduct a compass compensation.
3. Connect the current Common Laser Range Finder to the current global positioning system via the J2 port.
4. Aim the laser range finder at the target.
5. Press both direction and distance buttons simultaneously.
6. Obtain the target location data from the global positioning system.
7. Transmit the call for fire.

8. Transmit subsequent corrections in the proper sequence.
9. Transmit refinement, record as target (if desired), EOM, and surveillance.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
2. Operators Manual TM for Laser Range Finder

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosive	8 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine
D544 Projectile, 155mm High Explosive M10	8 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	8 fuses per Marine
N523 Primer, Percussion M82	8 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

EQUIPMENT: SL-3 complete laser range finder with applicable technical manuals.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fires C2 systems and manual methods.

Simulation Support: 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.

0861-OBS-1045: Conduct a fire for effect (FFE) mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the equipment organic to the Fire Support Man, a designated target, and communications with the appropriate agency.

STANDARD: Initiate the call for fire within 60 seconds of target identification and achieve the desired effects on target.

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 (EOM), and surveillance.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosive	5 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine
D544 Projectile, 155mm High Explosive M10	6 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	6 fuses per Marine
N523 Primer, Percussion M82	6 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures.
3. Simulation Support: 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.

0861-OBS-1050: Conduct an illumination mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the equipment organic to the Fire Support Man, a designated target, and communications with the appropriate agency.

STANDARD: To adequately illuminate the target area.

PERFORMANCE STEPS:

1. Locate the target.
2. Transmit the complete illumination call for fire, in proper sequence.
3. Determine and transmit subsequent corrections.

4. Transmit appropriate refinement, record as target (if desired), End of Mission (EOM), and surveillance.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA46 Cartridge, 120mm Mortar Illumination	4 mortars per Marine
D505 Projectile, 155mm Illuminating M485A	4 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	4 charges per Marine
N285 Fuze, MTSQ M577/M577A1 without Boost	4 fuses per Marine
N523 Primer, Percussion M82	4 cartridges per Marine
DA12 Charge, Propellant 155mm MACS M231	4 charges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures.
3. Simulation Support: 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.

0861-OBS-1055: Conduct a coordinated illumination mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the equipment organic to the Fire Support Man, communications with the appropriate agency, suspected enemy activity is detected during the hours of darkness, and after illuminating a target area, and suspected adversary forces have been identified.

STANDARD: To engage the target with effective fires and obtain desired effects; HE call for fire will be transmitted within 60 seconds of identifying the target as adversary; initial HE round is within 200 meters of the actual target; and, the HE FFE is within +/-50 meters of the actual

target.

PERFORMANCE STEPS:

1. Transmit illumination mark when the illumination round best illuminates the target.
2. Transmit coordinated illumination Call for Fire (CFF), in proper sequence.
3. Determine and transmit subsequent corrections within 15 seconds of High Explosive (HE) round impact.
4. Fire for Effect (FFE).
5. Transmit refinement data (if any), Record as Target (if desired), End of Mission (required), and surveillance (required).

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosi	10 mortars per Marine
CA46 Cartridge, 120mm Mortar Illumination	7 mortars per Marine
D505 Projectile, 155mm Illuminating M485A	7 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	16 charges per Marine
D544 Projectile, 155mm High Explosive M10	10 projectiles per Marine
N289 Fuze, Electronic Time M762A1 Sub f/N	7 fuses per Marine
N340 Fuze, Point Detonating M739/M739A1	10 fuses per Marine
N523 Primer, Percussion M82	17 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. NVGs and/or NVSs will not be used.
3. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures.
4. Simulation Support: 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.

0861-OBS-1060: Conduct a danger close fire mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: In order to bring effective fires on a target located within 600 meters or less of a friendly position, to minimize the risk of fratricide by using creeping fire procedures properly.

PERFORMANCE STEPS:

1. Determine the target location.
2. Determine offset requirements
3. Prepare and submit the Call For Fire (CFF)
4. Announce Danger Close in the Method of Fire and Control
5. Determine and transmit subsequent corrections within 15 seconds of burst.
6. Adjust fires using creeping fire techniques.
7. Request Fire for Effect (FFE).
8. Transmit refinement data (if any), Record as Target, End of Mission (required), and surveillance (required).

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
DA12 Charge, Propellant 155mm MACS M231	12 charges per Marine
D544 Projectile, 155mm High Explosive M10	12 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	12 fuses per Marine
N523 Primer, Percussion M82	12 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

EQUIPMENT: SL-3 complete laser range finder with applicable technical manuals.

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
 2. NOTE: Due to safety and range training restrictions, the "Creeping Fires" technique can be used within an approved impact area to simulate a danger close mission. Appropriate commands will still be verbally demonstrated.
 3. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures
 4. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.
-

0861-OBS-1065: Conduct two fire missions simultaneously

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: In order to engage multiple targets, transmitting both Calls For Fire (CFF) within 2 minutes of identification of the last target; initial target locations must be within 200 meters of the actual location of the target, and Fire For Effect (FFE) must be within 50 meters of each target with no more than three subsequent rounds used in adjustment.

PERFORMANCE STEPS:

1. Determine location of the targets.
2. Prepare and transmit both Calls For Fire (CFFs), in the proper sequence.
3. Precede corrections with, "TARGET NUMBER."
4. Request Fire For Effect (FFE).
5. Transmit refinement data (if any), Record as Target, End of Mission (required), and surveillance (required) for both targets.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosi	20 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	16 charges per Marine
D544 Projectile, 155mm High Explosive M10	20 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	20 fuses per Marine
N523 Primer, Percussion M82	20 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-1070: Conduct fire mission on irregularly shaped targets

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man and an irregularly shaped target.

STANDARD: To achieve the desired effects, center grids are within 200 meter of actual target location and attitude is sent to the nearest 100 mils.

PERFORMANCE STEPS:

1. Prepare and transmit complete Call for Fire (CFF), in proper sequence, within 2 minutes of target identification.
2. Transmit two grids or a center grid with length and attitude to describe linear targets.
3. Transmit three or more grids to locate a target when needed. For example, use three or more grids to accurately portray a uniquely shaped target that is "L" shaped.
4. Determine and transmit subsequent corrections.
5. Send all subsequent corrections within 15 seconds of HE burst.
6. Transmit refinement data (if any), Record as Target (if desired), End of Mission (EOM), and surveillance.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosi	10 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine
D544 Projectile, 155mm High Explosive M10	10 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	10 fuses per Marine
N523 Primer, Percussion M82	10 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation

device operator.

0861-OBS-1080: Conduct an immediate smoke mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: To obscure the target using WP or M825 smoke munition, ensure the initial target location is within 300 meters of the actual target location, and the Call for Fire (CFF) is transmitted within 30 seconds of target location.

PERFORMANCE STEPS:

1. Determine the placement point of immediate smoke.
2. Transmit the complete Call for Fire (CFF) in the proper sequence.
3. Determine and transmit subsequent corrections, as required.
4. Spot initial rounds and determine and transmit deviation and range corrections to provide effective coverage. Minimum deviation and range corrections are 50 and 100 meters, respectively.
5. Determine height-of-burst corrections, as necessary.
6. End mission when desired results are achieved.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA49 Cartridge, 120mm Mortar Smoke M1103	4 cartridges per Marine
D528 Projectile, 155mm Smoke White Phosph	4 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	4 charges per Marine
N340 Fuze, Point Detonating M739/M739A1	4 fuses per Marine
N523 Primer, Percussion M82	4 cartridges per Marine
DWGU Tail Charge Assembly (TCA) M237	4 charges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual

D529 Projectile, 155mm High Explosive M79	3 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	4 charges per Marine
N289 Fuze, Electronic Time M762A1 Sub f/N	6 fuses per Marine
N340 Fuze, Point Detonating M739/M739A1	3 fuses per Marine
N523 Primer, Percussion M82	9 cartridges per Marine
DWGU Tail Charge Assembly (TCA) M237	6 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. NOTE:
 - a. If the M825 round is used, no HOB adjustment is necessary.
 - b. Standard should be observed under ideal weather conditions.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.
4. Distance Learning Product(s): 0861, Basic Forward Observation Procedures

0861-OBS-1090: Conduct a destruction mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: To successfully destroy the target.

PERFORMANCE STEPS:

1. Locate the target.
2. Transmit call for fire ensuring "Destruction" is used as type of adjustment.
3. Adjust rounds to the target utilizing precision registration procedures.
4. Continue to fire rounds at the target.
5. Make corrections, as necessary (normally after every third round).
6. Fire until the target is destroyed.
7. Transmit refinement data (if any), Record as Target (if desired), End of Mission (required), and surveillance (required).

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosi	10 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine
D544 Projectile, 155mm High Explosive M10	10 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	10 fuses per Marine
N523 Primer, Percussion M82	10 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. NOTE: Destruction puts a target out of action permanently. Exact percentages to define "destruction" vary and are determined by the commander based on the situation.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-1095: Conduct a fire mission on a moving target

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: To achieve desired effects.

PERFORMANCE STEPS:

1. Identify a moving target.
2. Select an Intercept Point (IP) along the target's likely route of march as the target location.
3. Prepare and transmit a Call For Fire (CFF).
4. State the target is moving in your target description portion of the call for fire.
5. State AMC in the "Method of Control" portion of the call for fire.

6. Determine when to fire based on rate of speed of the target and time of flight (determine a trigger point).
7. Conduct the mission.
8. Transmit refinement data (if any), Record as Target (if desired), End of Mission (required), and surveillance (required).

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosive	10 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine
D544 Projectile, 155mm High Explosive M10	10 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	10 fuses per Marine
N523 Primer, Percussion M82	10 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. NOTE: Adjust rounds to IP if possible. This will improve first round accuracy and increase the damage to the target.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-1100: Conduct a precision registration, quick and time

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man and an MTO from the FDO initiating the precision registration.

STANDARD: In order to determine refinement data to obtain spottings of (2) rounds over and (2) rounds short within 25 meters (impact portion of the registration mission), and correct the mean height of burst of 4 time-fuzed rounds with the same data to 20 meters above the registration point.

PERFORMANCE STEPS:

1. Determine the OT factor.
2. Draw a diagram of the impact of all rounds, recording the spottings to the nearest mil.
3. Split the 100-meter bracket by requesting, "ADD (DROP) 50."
4. Spot the next round. Split the 50-meter bracket by requesting, "2 ROUNDS, ADD (DROP) 25", as appropriate, to obtain an opposite spotting.
5. Request, "1 ROUND, ADD (DROP) 25", as appropriate, if these rounds are spotted opposite that of the previous spotting, to make the next round impact opposite the last 2 rounds.
6. Determine and announce the range and deviation refinement data to the nearest 10 meters.
7. Announce, "RECORD AS REGISTRATION POINT, TIME REPEAT, OVER."
8. Request, "3 ROUNDS, REPEAT", once a measurable airburst is obtained.
9. Record the spotting of each round.
10. Determine the appropriate mean HOB correction of the 4 rounds to achieve a 20-meter HOB.
11. Transmit HOB refinement "HOB CORRECTION, RECORD AS TIME REGISTRATION POINT, END OF MISSION."

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
CA45 Cartridge, 120mm Mortar High Explosive	11 mortars per Marine
DA12 Charge, Propellant 155mm MACS M231	12 charges per Marine
D544 Projectile, 155mm High Explosive M10	11 projectiles per Marine
N289 Fuze, Electronic Time M762A1 Sub f/N	4 fuses per Marine
N340 Fuze, Point Detonating M739/M739A1	7 fuses per Marine
N523 Primer, Percussion M82	11 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Distance Learning Product(s): 0861, Basic Forward Observation Procedures
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-1105: Conduct a suppression of enemy air defense (SEAD) fire mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, the need to suppress enemy air defenses in the vicinity of the target area, ingress and egress routes, and a Forward Air Controller (FAC) or Joint Terminal Air Controller (JTAC) if aircraft are used.

STANDARD: In order to successfully degrade or neutralize enemy air defenses to allow safe maneuver of aircraft in-and-out of target area, ensuring the marking round impacts 30 seconds (for WP), 45 seconds (for illumination on deck) before the aircraft's bombs impact on the target, and the marking round is within 300 meters of the target.

PERFORMANCE STEPS:

1. Identify enemy air threat locations and location to mark.
2. Identify which SEAD timeline best supports tactical situation (Continuous, Interrupted or Non-standard).
3. Transmit the Call For Fire (CFF).
4. Transmit End of Mission (EOM) and Surveillance.

REFERENCES:

1. MCRP 3-16.2 Techniques and Procedures for Fire Support Coordination
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D505 Projectile, 155mm Illuminating M485A	1 projectiles per Marine
D528 Projectile, 155mm Smoke White Phosph	1 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	12 charges per Marine
D544 Projectile, 155mm High Explosive M10	10 projectiles per Marine
N289 Fuze, Electronic Time M762A1 Sub f/N	2 fuses per Marine
N340 Fuze, Point Detonating M739/M739A1	10 fuses per Marine
N523 Primer, Percussion M82	12 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

UNITS/PERSONNEL: Forward Air Controller or Joint Terminal Air Controller

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. Ammunition requirement is based on one continuous and one interrupted SEAD mission per observer for proficiency, per iteration, and the total for annual sustainment.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented

with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-1110: Submit a list of targets

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, established communications with higher, adjacent and supporting units.

STANDARD: To support a scheme of maneuver.

PERFORMANCE STEPS:

1. Locate the targets.
2. Record target information.
3. Transmit list of targets to higher, adjacent, and supporting units as required.

REFERENCES:

1. MCRP 3-16.2 Techniques and Procedures for Fire Support Coordination
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
4. TM 10938B-OR TLDHS Technical Manual
5. DA FORM 4655-R Target List Worksheet

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and manual methods.

SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-1115: Perform GPS aided land navigation

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a known location on the ground, a topographical map a GPS device, a map pen, individual field equipment, and a designated set of points to navigate to during day and night.

STANDARD: In order to traverse the course locating all designated points during day or night.

PERFORMANCE STEPS:

1. Conduct pre-operational installation procedures for appropriate automated navigational equipment.
2. Input waypoint/route information into appropriate automated navigational equipment.
3. Navigate using appropriate automated navigational equipment.
4. Maintain awareness of location.
5. Troubleshoot problems, as required.
6. Navigate via manual methods if automated navigational equipment becomes faulty and operator echelon troubleshooting and maintenance procedures fail to fix the problem (as required).

REFERENCES:

1. FM 3-25.26 Map Reading and Land Navigation
2. TM 09880C-OR DAGR Operator's Pocket Guide

SUPPORT REQUIREMENTS:

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

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Each designated land navigation point to be used should be located to at least an eight-digit grid coordinate.
2. The location of each designated land navigation point should be verified prior to use in initial or sustainment training.
3. Terrain and training area dependent, the day course should be no less than 4,000 meters in length.
4. Terrain and training area dependent, the night course should be no less than 1,500 meters in length.

Distance Learning Product(s): MCI 0381D Land Navigation

Performance Support Tool(s): MCI Job Aid: Land Navigation Handbook

0861-OBS-1120: Operate the Target Location Designation and Hand-Off System (TLDHS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Target Location Designation and Hand-off System (TLDHS) is a modular, man-portable equipment suite. TLDHS provides operators the ability to acquire targets quickly in day, night, and near-all-weather

visibility conditions via interface with tactical data systems using fielded communications equipment. Air Officers and DASC personnel have the ability to control, assign and monitor missions received or info copied to them.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an operational TLDHS with the StrikeLink (SL) software loaded, a TAB G with relevant system configuration and network communications information, and a functional communications network.

STANDARD: In order to determine the observer's location and that of a target, generate precision coordinates, and hand-off data to supporting arms elements.

PERFORMANCE STEPS:

1. Load map data.
2. Create communications configuration (current and planned).
3. Establish JTCW gateway interface to receive COP.
4. Establish JTCW gateway interface to receive COP.
5. Input target block (IAW TAB G).
6. Input ASR block (IAW TAB G).
7. Enter information Routing.
8. Establish Aircraft Position Target Designation (APTD) link, as required.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 3. Unit Digital SOP for Fire Support C2 Systems
-

0861-NSFS-1000: Conduct a naval surface fire support (NSFS) mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, a fire support ship, and communications with the ship.

STANDARD: To effectively engage a target; the target must be identified within 200 meters of its actual location; altitude to within 10 meters of the

actual altitude or VA; initial Call For Fire (CFF) transmitted within 60 seconds of target identification; subsequent corrections transmitted within 15 seconds of round impact; and Fire For Effect (FFE) for 5-inch guns initiated when a 100-meter bracket is split for a point target and a 200-meter bracket is split for an area target.

PERFORMANCE STEPS:

1. Determine target location.
2. Prepare and transmit the Call For Fire (CFF) to the ship in two transmissions using correct Naval Surface Fire Support (NSFS) procedures and terminology.
3. Make subsequent corrections.
4. Initiate Fire For Effect (FFE).
5. Transmit End of Mission (EOM) and surveillance.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D339 5-INCH/54 HE FUZE PD	5 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. DISTANCE LEARNING PRODUCT(S): MCI 0861, Basic Forward Observation Procedures and 0632, HF/UHF Field Radio Equipment.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1005: Conduct a fresh target shift mission with naval surface fire support (NSFS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, a fire support ship, and communications with the ship.

STANDARD: To effectively engage a target of higher priority without ending original mission.

PERFORMANCE STEPS:

1. When a higher priority target has been identified, a fresh target shift mission should be conducted.
2. Begin the new abbreviated call for fire (CFF) within 45 seconds, without ending the current mission, by announcing "FRESH TARGET."
3. Complete the mission.
4. Re-engage original target.
5. Transmit EOM and surveillance on both targets.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D339 5-INCH/54 HE FUZE PD	5 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. DISTANCE LEARNING PRODUCT(S): MCI 0861, Basic Forward Observation Procedures and 0632, HF/UHF Field Radio Equipment.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1010: Conduct a new target shift mission with naval surface fire support (NSFS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, and new target is identified that requires simultaneous fire, a fire support ship with the MK-86 GFCS aboard and two operational gun mounts, communications with the ship.

STANDARD: To effectively engage both targets simultaneously.

PERFORMANCE STEPS:

1. Transmit the call for fire (CFF) on the first target.
2. Initiate the CFF on the second target using fresh target shift procedures within 45 seconds identify the target.
3. Transmit the words "NEW TARGET," target number and appropriate target location data in a single transmission.
4. Follow simultaneous target mission procedures.
5. Complete both missions.
6. Transmit EOM and surveillance on both targets as each mission ends.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D339 5-INCH/54 HE FUZE PD	10 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1015: Conduct simultaneous missions with naval surface fire support (NSFS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, and two targets are identified that require simultaneous fire, a fire support ship with the MK-86 GFCS aboard and two operational gun mounts, communications with the ship.

STANDARD: To effectively engage both targets simultaneously.

PERFORMANCE STEPS:

1. Transmit the call for fire (CFF) on the first target within 2 minutes.
2. Transmit the second CFF when the mission is ready.
3. Preface all subsequent transmissions with the last two digits of the target number to which the transmission applies.
4. Complete both missions.
5. Transmit EOM and surveillance on both targets as each mission ends.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D339 5-INCH/54 HE FUZE PD	10 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1020: Conduct an illumination mission with naval surface fire support (NSFS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, a fire support ship, and communications with the ship.

STANDARD: To effectively illuminate the desired target area.

PERFORMANCE STEPS:

1. Determine suspected location of the target.
2. Transmit the CFF within 60 seconds of identifying a suspected target specifying "ILLUMINATION" in the method of engagement.
3. Make illumination corrections if required.

4. Announce "RIPPED CHUTE" or "DARK STAR" if applicable.
5. Transmit EOM and surveillance.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D353 5-INCH/54 ILLUM	7 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1025: Conduct a naval gunfire (NGF) coordinated illumination mission

EVALUATION-CODED: NO **SUSTAINMENT INTERVAL:** 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, a fire support ship, and communications with the ship.

STANDARD: To effectively engage a target during night operations.

PERFORMANCE STEPS:

1. Transmit the complete illumination call for fire, in proper sequence.
2. Determine and transmit illumination corrections to include HOB, if required.
3. Once the target is illuminated, determine location of the target.
4. Transmit the coordinated illumination call for fire, in proper sequence.
5. Transmit "MARK" when target is illuminated.
6. Determine and transmit subsequent corrections within 15 seconds of HE round impact.

7. FFE.
8. Transmit appropriate refinement, EOM, and surveillance.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D326 5-INCH/54 HE FUZE QUICK	5 EA
D353 5-INCH/54 ILLUM	7 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. NOTE: The Mk 88 Illumination (D353) is for training and requires reduced charge; Mk 91 Illumination is for war time use only.
3. DISTANCE LEARNING PRODUCT(S): MCI 0861, Basic Forward Observation Procedures and Propagation of Radio Waves 0632, HF/UHF Field Radio Equipment
4. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1030: Conduct a danger close fire mission with naval surface fire support (NSFS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man, a fire support ship, and communications with the ship.

STANDARD: To effectively engage a target in close proximity to friendly forces.

PERFORMANCE STEPS:

1. Recognize when a "DANGER CLOSE" situation exists and determine offset

- requirements.
2. Transmit the call for fire (CFF).
 3. Conduct the mission.
 4. Adjust utilizing creeping method.
 5. Transmit EOM and surveillance.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D339 5-INCH/54 HE FUZE PD	5 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. DISTANCE LEARNING PRODUCT(S): MCI 0861, Basic Forward Observation Procedures and 0632, HF/UHF Field Radio Equipment.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1035: Conduct a naval surface fire support (NSFS) suppression of enemy air defense (SEAD) mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to a Fire Support Man and the need to suppress enemy air defenses in the vicinity of the target area on ingress and egress routes, commander's guidance, communications with a fire support ship and the NGF liaison officer, a fire support ship with the MK-86 GFCS and two operational gun mounts (if mission is both a mark and suppress), access to the forward air controller (FAC)/ JTAC.

STANDARD: In order to successfully degrade or neutralize enemy air defenses to allow safe maneuver of aircraft in-and-out of target area; ensure the

marking round impacts 30 seconds (for WP), 45 seconds (for illumination on deck) before the aircraft's bombs impact on the target, and the marking round is within 300 meters of the target.

PERFORMANCE STEPS:

1. Determine whether continuous SEAD or interrupted SEAD will be used.
2. Identify SEAD targets and target to mark.
3. Transmit CFF.
4. Process the mission.
5. Ensure the marking round impacts 30 seconds before the aircraft's bombs impact on the target.
6. Ensure the marking round is within 300 meters of the target.
7. Complete the mission.
8. Record SEAD target, as required.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>		<u>Quantity</u>
D295	5-INCH/54 HE FUZE CVT	10 EA

or

D338 5"/54 HE MT, D353, 5"/54 ILLUM or D354, 5"/54 ILLUM1 D313	
5-INCH/54 WP FUZE PD	1 EA

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-NSFS-1040: Refire a recorded target with naval surface fire support (NSFS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 2 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a tactical scenario that requires fire on a recorded target, equipment organic to a Fire Support Man, a fire support ship, communications with the ship.

STANDARD: To effectively engage recorded target.

PERFORMANCE STEPS:

1. Identify the target and corresponding target number.
2. Transmit the abbreviated CFF in one transmission.
3. Announce "FIRE MISSION, TARGET NUMBER, DIRECTION", and any desired sub elements of the target description if it has changed, and method of control and engagement if other than standard.
4. Complete the mission.
5. Transmit EOM and surveillance.

REFERENCES:

1. ATP 4 (E) CH 7 Allied Naval Gunfire Support
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

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19010. 2000-LEVEL EVENTS

0861-OBS-2005: Prepare a visibility diagram

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given equipment organic to the Fire Support Man and an information sheet containing a zone of observation and responsibility.

STANDARD: To accurately depict areas not visible to the observer for every 100 mils within the area of responsibility.

PERFORMANCE STEPS:

1. Plot your location.
2. Draw lines from your location out to the farthest limits of your zone of observation and responsibility.
3. Label the radial lines with the correct direction.
4. Construct a profile along each line marking points that are not visible.
5. Connect the points and shade the areas between these points, graphically showing the areas that cannot be seen from your location.
6. Label the diagram and send it to the Fire Support Coordination Center

(FSCC), as required.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA:

Facility Code 17671 Field Artillery Indirect Fire Range
Facility Code 17413 Field Training Area

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Distance Learning Product(s): 0332,
Reconnaissance Marine, and 0861, Basic Forward Observation Procedures

0861-OBS-2010: Conduct an abbreviated registration

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the equipment organic to a Fire Support Man, a designated registration point, a zone of observation, and an MTO initiating the abbreviated registration.

STANDARD: To provide refinements to the nearest 10 meters for range and deviation from the "add/drop 50" round that is spotted for the impact portion, and one air burst round is spotted and corrected to a 20 meter HOB for the time portion.

PERFORMANCE STEPS:

1. Initiate Abbreviated registration.
2. Determine and transmit subsequent corrections.
3. Record registration point and time registration point correctly.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D544 Projectile, 155mm High Explosive M10	7 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine
N290 Fuze, Electronic Time M767A1 Sub f/N	2 fuses per Marine

N340 Fuze, Point Detonating M739/M739A1 5 fuses per Marine
N523 Primer, Percussion M82 7 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Distance Learning Product(s): 0861, Basic Forward Observation Procedures
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-2015: Conduct a high-burst or mean-point-of-impact (MPI) registration

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the equipment organic to a Fire Support Man, an aiming circle, (2) surveyed OPs, directional control, and orienting data.

STANDARD: To obtain accurate firing data.

PERFORMANCE STEPS:

1. Set up instruments.
2. Orient the instruments before the first round is fired, per the Fire Direction Center's (FDC) instructions.
3. Report to the Fire Direction Center (FDC) when ready to observe.
4. Measure and report the spotting of the impacts and/or bursts.
5. Reorient the instrument to the location of the first round only.
6. Continue observing until the Fire Direction Center (FDC) ends the mission.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D544 Projectile, 155mm High Explosive M10	3 projectiles per Marine
D563 Projectile, 155mm High Explosive DPI	4 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	4 charges per Marine

N289 Fuze, Electronic Time M762A1 Sub f/N 4 fuses per Marine
N340 Fuze, Point Detonating M739/M739A1 3 fuses per Marine
N523 Primer, Percussion M82 7 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17430 Impact Area Dudded

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures.
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-2020: Conduct a mean-point-of-impact (MPI) registration with a laser system

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a laser device, communications with the Fire Direction Center (FDC), a designated registration point, an observer digital terminal (if so equipped), a map, and a Message To Observer (MTO) from the Fire Direction Officer (FDO) initiating a registration.

STANDARD: To obtain accurate firing data.

PERFORMANCE STEPS:

1. Set up the laser device for operations.
2. Lase the bursts of the rounds.
3. Transmit the direction, distance, and Vertical Angle of the bursts to the Fire Direction Center (FDC).

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D544 Projectile, 155mm High Explosive M10	6 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	8 charges per Marine
N340 Fuze, Point Detonating M739/M739A1	6 fuses per Marine
N523 Primer, Percussion M82	6 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures.
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-2025: Conduct a mortar precision registration

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the equipment organic to a Fire Support Man, communications with the FDC, a designated registration point, a laser range finder (if so equipped), an observer digital terminal (ODT) (if so equipped).

STANDARD: To obtain accurate firing data with spottings of one round over and one round short with the last round 50 meters from the target, and refinements are sent to the FDC to the nearest 25 meters.

PERFORMANCE STEPS:

1. Transmit the call for fire.
2. Determine and transmit subsequent corrections.
3. Adjust the sheaf, if necessary.

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures.
2. SIMULATION SUPPORT: This event may be conducted and/or supplemented

with the use of a Category I or II simulation devices and a simulation device operator.

3. Either 60mm or 81mm mortars can be used to meet this requirement.

0861-OBS-2030: Conduct a FASCAM mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

MOS PERFORMING: 0861

BILLETTS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given equipment organic to a Fire Support Man and the FASCAM template.

STANDARD: To properly emplace a FASCAM minefield to support the scheme of maneuver.

PERFORMANCE STEPS:

1. Obtain permission from the commander to fire FASCAM.
2. Transmit the Call For Fire (CFF) to initiate a FASCAM minefield.
3. Conduct an adjust fire mission to refine the target location, if possible.
4. Request FASCAM in the fire for effect portion of the call for fire, once the 200 meter bracket has been broken.
5. Transmit refinement data (if any), Record as Target (if desired), End of Mission (required), and surveillance (required).

REFERENCES:

1. FM 6-20-5 Family of Scatterable Mines (FASCAM)
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D501 Projectile, 155mm ADAM-L M692	12 projectiles per Marine
D503 Projectile, 155mm Anti-Tank RAAMS-L	12 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	16 charges per Marine
D544 Projectile, 155mm High Explosive M10	3 projectiles per Marine
N289 Fuze, Electronic Time M762A1 Sub f/N	24 fuses per Marine
N340 Fuze, Point Detonating M739/M739A1	3 fuses per Marine
N523 Primer, Percussion M82	27 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17430 Impact Area Dudded

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. Distance Learning Product(s): 0861, Basic Forward Observation Procedures
3. SIMULATION SUPPORT: This event should be conducted with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-2035: Conduct an ICM mission

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETTS: Fire Support Chief, Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: To obtain the desired effects in order to support the scheme of maneuver.

PERFORMANCE STEPS:

1. Transmit the Call For Fire (CFF) to initiate a ICM mission.
2. Conduct an adjust fire mission to refine the target location, if possible.
3. Request fire for effect, once the 200 meter bracket has been broken.
4. Transmit refinement data (if any), Record as Target (if desired), End of Mission (required), and surveillance (required).

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
D563 Projectile, 155mm High Explosive DPI	9 projectiles per Marine
DA12 Charge, Propellant 155mm MACS M231	4 charges per Marine
N289 Fuze, Electronic Time M762A1 Sub f/N	6 fuses per Marine
N340 Fuze, Point Detonating M739/M739A1	3 fuses per Marine
N523 Primer, Percussion M82	9 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17430 Impact Area Dudded

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.

2. Distance Learning Product(s): MCI 0861, Basic Forward Observation Procedures
3. SIMULATION SUPPORT: This event should be conducted with the use of a Category I or II simulation devices and a simulation device operator.

0861-OBS-2040: Use automated methods to engage targets with GPS guided munitions

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

GRADES: SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given equipment organic to Fire Support Man, established digital communications with higher, adjacent and supporting units and an automated system needed to complete the task.

STANDARD: Mensurated coordinate is determined and a call for fire is transmitted to an FSC for attack.

PERFORMANCE STEPS:

1. Ensure TMO software is properly installed on observer's digital terminal (ODT).
2. Determine initial target location.
3. Conduct refinement of target data utilizing dynamic targeting tools i.e. PSS-SOF.
4. Transmit refined target data to appropriate agency.

REFERENCES:

1. CJCSI 3505.01A Target Coordinate Mensuration Certification and Program Accreditation
2. MCRP 3-16.2 Techniques and Procedures for Fire Support Coordination
3. MCRP 3-16E Fire Support Systems for MAGTF Operations
4. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
5. TM 10938B-OR TLDS Technical Manual

SUPPORT REQUIREMENTS:

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. This event must be supervised by a TMO certified operator.

0861-OBS-2045: Perform crater analysis

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 3 months

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

GRADES: PFC, LCPL, CPL, SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a crater, shell fragments, and equipment organic to the Fire Support Man.

STANDARD: Determining the location of the crater and the direction to the firing platform within specifications for the equipment used.

PERFORMANCE STEPS:

1. Determine crater position.
2. Determine crater type.
3. Determine the direction.
4. Collect usable shell fragments.
5. Develop shell report.

REFERENCES:

1. MCWP 3-16.1 Artillery Operations
 2. MCWP 3-16.3 Tactics, Techniques, and Procedures for Field Artillery Cannon Battery
 3. ST 6-50-20 Battery Executive Officer's/ Platoon Leader's Handbook
-

0861-OBS-2050: Adjust final protective fires

EVALUATION-CODED: NO SUSTAINMENT INTERVAL: 6 months

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given equipment organic to a Fire Support Man.

STANDARD: To the location specified by the company commander.

PERFORMANCE STEPS:

1. Select an adjusting point based on the maneuver commander's guidance.
2. Transmit FPF as the target description of the CFF.
3. Transmit the complete call for fire in the proper sequence announcing, "DANGER CLOSE," ensuring AMC is the method of control.

4. Determine and transmit subsequent corrections for each piece to the nearest 10 meters.
5. Adjust fires using creeping fire techniques.
6. Continue adjustment until round bursts within 50 meters of the desired location.
7. Transmit refinement data and instruct the Fire Direction Center (FDC) to begin firing the next piece.
8. When last piece is adjusted; FPF is adjusted.
9. End of Mission (EOM).

REFERENCES:

1. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller

SUPPORT REQUIREMENTS:

ORDNANCE:

<u>DODIC</u>	<u>Quantity</u>
DA12 Charge, Propellant 155mm MACS M231	28 charges per Marine
D544 Projectile, 155mm High Explosive M10	32 projectiles per Marine
N340 Fuze, Point Detonating M739/M739A1	32 fuses per Marine
N523 Primer, Percussion M82	32 cartridges per Marine

RANGE/TRAINING AREA: Facility Code 17671 Field Artillery Indirect Fire Range

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS:

1. This event will be conducted utilizing appropriate fire C2 and manual methods.
2. NOTE: If the FDC is AFATDS equipped, only the center weapon is adjusted onto the center grid of the FPF and the adjustment is then terminated. Manual gunnery requires that all guns be adjusted into the FPF. A laser designator equipped observer may use specific aimpoints for each gun in the firing element. Each gun will then be aimed at that point. This TTP can be used to cover smaller areas of dead space where a linear sheaf would not be appropriate.
3. SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.
4. Distance Learning Product(s): 0861, Basic Forward Observation Procedures

0861-FSCC-2000: Establish the fire support coordination center (FSCC)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The FSCC serves as the unit commander's principal section responsible for the overall planning and execution of fires throughout his area of operations.

MOS PERFORMING: 0861

BILLETS: FSCC Chief

GRADES: CPL, SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance and references as a member of the GCE Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: Demonstrate the ability to effectively organize personnel and equipment to ensure a responsive action is initiated for all incoming/outgoing requirements to facilitate the integration of organic, MAGTF and Joint fires to shape and set conditions for subordinate element to support the scheme of maneuver.

PERFORMANCE STEPS:

1. Identify physical space, personnel and equipment available.
2. Identify systems and systems architecture requirements.
3. Load, initialize and activate appropriate communication and C2 systems.
4. Build a planned communications configuration and edit databases as required.
5. Establish communication with section, agencies and command to facilitate planning, coordination and execution of fires.
6. Supervise the coordination of required actions and reports with higher, adjacent and supporting units.
7. Supervise the establish fire internal battle rhythm within the overall GCE staff battle rhythm.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

0861-FSCC-2005: Perform the duties of a fire support man at the platoon level

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Platoon Fires Support Man is responsible for the efficient functioning of the Fires section to ensure that fires are planned, coordinated and executed to support the commander's intent and guidance. The Fires Support Man assists the Fire Support Team Leader in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

GRADES: PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and equipment organic to a Fire Support Man as a member of a Company fire support team operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the Fires Support Team in the execution of plans and integration of kinetic fires with the scheme of maneuver for the accomplishment of the mission and commanders intent.

PERFORMANCE STEPS:

1. Incorporates, Load, initialize and activate appropriate communication equipment and digital entry device, ensuring that all fires C2 systems databases are maintained and updated w/latest versions of software/patches, as required.
2. Support/Conduct OP site selection and occupation.
3. Execute plans to support the Company scheme of maneuver.
4. Support target acquisition and execution to support the company scheme of maneuver, the Bn fire support plan and concept of operations.
5. Support execution of preplanned targets and fire plans/schedule of fires as a primary or alternate executer.
6. Conduct battlefield surveillance and report BDA.
7. Conduct battlefield reporting.
8. Advise/brief the platoon commander/FST on current capabilities, limitations and employment of fires assets.

RELATED EVENTS:

JFO-SOAS-2206	JFO-OAS-2106	JFO-SOAS-2203
JFO-SOAS-2201	JFO-SOAS-1205	JFO-SOAS-1204
JFO-SOAS-1203	JFO-SOAS-1202	JFO-SOAS-1201
JFO-SOAS-1200	JFO-SOAS-2202	JFO-SOAS-2205
JFO-SSUP-1103	JFO-SSUP-1101	JFO-SSUP-1102
JFO-SSUP-1100	JFO-OAS-2104	JFO-OAS-2103
JFO-OAS-2102	JFO-OAS-2101	JFO-OAS-2100
JFO-OAS-2200	JFO-OAS-2108	JFO-OAS-2107
JFO-SOAS-2204		

REFERENCES:

1. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
3. TM 10938B-OR TLDHS Technical Manual
4. TM 11-7025-279-10-1 AFATDS Users Manual

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This 0861's primary responsibility is the platoon JFO. He also performs tasks as a fire support man.

0861-FSCC-2010: Perform the duties of a fire support man at the company level

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Company Fires Support Man is responsible for the efficient functioning of the Fires section to ensure that fires are planned, coordinated and executed to support the commander's intent and guidance. The Fires Support Man assists the Fire Support Team Leader in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

GRADES: SGT, SSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and equipment organic to a Fire Support Man as a member of a Company fire support team operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure Fires Support Team effectively plans and integrates kinetic and non-kinetic fires to accomplishment of the mission and commanders intent.

PERFORMANCE STEPS:

1. Supervise the training and use of communication equipment and fires C2 systems/collaborative tools.
2. Load, initialize and activate appropriate communication equipment and digital entry device, ensuring that all fires C2 systems databases are maintained and updated w/latest versions of software/patches, as required.
3. Recommend employment of the Fire Support Team.
4. Conduct OP site selection and occupation.
5. Develop, review, brief and distribute plans to support the Company scheme of maneuver.
6. Conduct target acquisition and execution to support the company scheme of maneuver, the Bn fire support plan and concept of operations.
7. Support execution of preplanned targets and fire plans/schedule of fires of fires as a primary or alternate executer.
8. Conduct battlefield surveillance and report BDA.
9. Conduct battlefield reporting.
10. Advise/brief the commander/FST on current capabilities, limitations and employment of fires assets.

RELATED EVENTS:

TAC-CHK-1190	TAC-OAS-1130	TAC-SASM-2109
TAC-AS-2203	TAC-AS-2202	TAC-AS-2101
TAC-SAER-2010	TAC-SOAS-2205	TAC-SOAS-2013
TAC-SOAS-2012	TAC-SOAS-2008	TAC-SOAS-2007
TAC-SOAS-2006	TAC-SOAS-2005	TAC-SOAS-2004
TAC-SOAS-2003	TAC-SOAS-2002	TAC-SOAS-1120
TAC-SOAS-1119	TAC-SOAS-1118	TAC-SOAS-1117
TAC-SOAS-1116	TAC-SOAS-1115	TAC-SOAS-1114

TAC-SOAS-1113	TAC-SOAS-1112	TAC-SOAS-1111
TAC-SOAS-1110	TAC-SOAS-2011	TAC-SOAS-2001
TAC-SEW-2207	TAC-SEW-2206	TAC-INTG-2201
TAC-INTG-2111	TAC-INTG-2106	TAC-INTG-2105
TAC-INTG-2104	TAC-INTG-2103	TAC-INTG-2102
TAC-SINT-2110	TAC-SINT-2009	TAC-SSUP-1101
TAC-SSUP-1100	TAC-OAS-2204	TAC-OAS-2108
TAC-OAS-1136	TAC-OAS-1135	TAC-OAS-1134
TAC-OAS-1133	TAC-OAS-1132	TAC-OAS-1131
TAC-AER-2107		

REFERENCES:

1. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
2. MCWP 3-16.6 Supporting Arms Observer, Spotter and Controller
3. TM 10938B-OR TLDHS Technical Manual
4. TM 11-7025-279-10-1 AFATDS Users Manual

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This 0861's primary responsibility is the company JTAC. He is also the senior enlisted 0861 on the fire support team.

0861-FSCC-2015: Perform the duties of a battalion fire support chief

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Battalion Fires Support Chief responsible for the efficient functioning of the Fires section to ensure that fires are planned, coordinated and executed to support the commander's intent and guidance. The Fire Support Chief assists the Fires Support Officer in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references, appropriate communication equipment and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure Fires Support Team is effectively planning and integrating kinetic and non-kinetic fires to accomplish the mission and commanders intent.

PERFORMANCE STEPS:

1. Supervise the actions of all personnel within the FSCC and the establishment of the fires sections watch rotation.
2. Supervise the training and use of communication equipment and fires C2 systems/collaborative tools.
3. Supervise, develop, review, brief and distribute plans to support the BN scheme of maneuver.
4. Support JTAR/ASR processing using communication equipment and fires C2 systems.
5. Supervise/Perform fire support coordination to closely integrate multiple supporting arms with the scheme of maneuver.
6. Supervise/Monitor, receives and process all fire support requests within the battalion AOR (dynamic targeting/mission processing).
7. Supervise coordination of missions outside the battalion's zone of action.
8. Support the integration of FSCC operations of w/other related staff sections.
9. Advise/brief the commander/staff on current capabilities, limitations and employment of fires assets.
10. Supervise dissemination/posting appropriate products, briefs, reports and materials to fires web page, with fires C2 systems and status references (i.e., boards, displays, electronic journals, etc.).

REFERENCES:

1. CPOF BC 10.x.x CPOF User Guide
2. JTCW JTCW Users Manual
3. MCRP 3-16E Fire Support Systems for MAGTF Operations
4. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
5. TM 11-7025-279-10-1 AFATDS Users Manual

0861-FSCC-2020: Perform the duties of a regimental fire support chief

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Regimental Fires Support Chief is responsible for the efficient functioning of the Fires section to ensure that fires are planned, coordinated and executed to support the commander's intent and guidance. The Fire Support Chief assists the Fires Support Officer in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references, appropriate communication equipment, and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure fire support team is effectively planning and integrating kinetic and non-kinetic fires, to accomplish the mission and commanders intent.

PERFORMANCE STEPS:

1. Supervise the actions of all personnel within the FSCC and the establishment of the fires sections watch rotation.
2. Supervise the training and use of communication equipment and fires C2 systems/collaborative tools.
3. Supervise, develop, review, brief and distribute plans; also coordinates, and integrates supporting arms to support the regiment's scheme of maneuver for current and future operations.
4. Supervise targeting and develops targets with the regiments organic target acquisition (TA) assets.
5. Supervise the allocation of assets (i.e., DS Arty BN, NSFS and air) to subordinate BNs for the attack of targets in the regiment's area of operations.
6. Support air support request processing using communication equipment and fires C2 systems.
7. Support/Coordinate/integrate ingress and egress routes for all aviation missions including assault support, CAS, and reconnaissance to support subordinate BNs and the regiments scheme of maneuver.
8. Supervise the execution and coordination of dynamic targeting/mission processing.
9. Review subordinate elements fire support plans to ensure they support the concept of fires.
10. Support the integration of FSCC operations with other related staff sections.
11. Advise/Brief the Commander/staff on current capabilities, limitations and employment of fires assets.
12. Supervise dissemination/posting of appropriate products, briefs, reports and materials to fires web page, with fires C2 systems and status references (i.e., boards, displays, electronic journals, etc.).

REFERENCES:

1. CPOF BC 10.x.x CPOF User Guide
2. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
3. JTCW JTCW Users Manual
4. MCRP 3-16E Fire Support Systems for MAGTF Operations
5. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
6. TM 11-7025-279-10-1 AFATDS Users Manual

0861-FSCC-2025: Perform the duties of the division fire support chief

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Division Fires Support Chief is responsible for the smooth and efficient functioning of the Fires section to ensure that fires are planned, coordinated and executed to support the commander's intent and guidance. The Fire Support Chief assists the Fires Support Officer in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate communication equipment and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure the fires support section effectively plans and integrates kinetic and non-kinetic fires to accomplish the mission and commanders intent.

PERFORMANCE STEPS:

1. Supervise the actions of all personnel within the FSCC and the establishment of the fires sections watch rotation.
2. Supervise the training and use of communication equipment and fires C2 systems/collaborative tools.
3. Supervise the identification requirements and make recommendations to the division commander for allocating fire support assets.
4. Supervise coordination of all supporting arms to support the concept of operations.
5. Supervise, develop, review, brief and distribute the fire support plan, fire plans/schedule of fires, targeting products, related materials, reports and messages.
6. Review subordinate elements fire support plans to ensure they support the concept of fires.
7. Supervise/Support Target Information Section operations (i.e., target acquisition, target dissemination, and attack recommendations and assessment).
8. Supervise/Support Air Section operations (i.e., address TACP issues, prepare, forward, and coordinate JTAR/ASRs and other air matters).
9. Supervise/Support Naval Gunfire Fire Section operations (i.e., employment, requests, and control of NFSF).
10. Support the integration of FSCC operations of w/other related staff sections.
11. Advise/brief the Commander/staff on current capabilities, limitations and employment of fires assets.
12. Supervise dissemination/posting of appropriate products, briefs, reports and materials to fires web page and status references (i.e. boards, displays, electronic journals, etc.).

REFERENCES:

1. CPOF BC 10.x.x CPOF User Guide
2. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
3. JTCW JTCW Users Manual
4. MCRP 3-16E Fire Support Systems for MAGTF Operations
5. MCWP 3-16 Fire Support Coordination in the Ground Combat Element

6. TM 11-7025-279-10-1 AFATDS Users Manual

0861-FSCC-2030: Perform the duties of the fires watch clerk (Div, Regt, Bn)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Fires Watch Clerk's primary responsibility is to support FSCC operations.

MOS PERFORMING: 0861

BILLETS: Fires Watch Clerk

GRADES: PFC, LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate communication equipment and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the planning, coordination and execution of fires to accomplish the mission and commanders intent.

PERFORMANCE STEPS:

1. Load, initialize, activate and operate appropriate communication equipment and C2 systems to support Fire Support Team, ensuring that all fires C2 systems databases are maintained and updated w/latest versions of software/patches, as required.
2. Support the flow and display of information within the FSCC with appropriate fires C2 and collaborative tools.
3. Monitor and ensure the fire support situation is displayed on all appropriate C2 systems in the COC (i.e., friendly units, FSCMs and other geometries).
4. Support the development of fire support plan, fire plans/schedule of fires and quick fire plans and transfer into current for implementation when directed.
5. Process and coordinate a preplanned close air support (CAS) request using communication equipment, fires C2 systems and/or collaborative tools.
6. Monitor the execution of the fire support plan, fire plans/schedule of fires. Revises and adjusts plans when directed with appropriate fires C2 systems.
7. Support the execution and coordination of dynamic targeting/mission processing and TST engagement with appropriate fires C2 systems.
8. Brief the Fires Watch Officers, Chief and staff on current capabilities, limitations and status of fires assets.
9. Support the production and post appropriate products, briefs, reports and materials to fires web page, with fires C2 systems and status references (i.e., boards, displays, electronic journals, etc.).

REFERENCES:

1. CPOF BC 10.x.x CPOF User Guide
 2. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
 3. JTCW JTCW Users Manual
 4. MCRP 3-16E Fire Support Systems for MAGTF Operations
 5. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 6. TM 11-7025-279-10-1 AFATDS Users Manual
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0861-FSC2-2000: Install fires C2 systems software

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The proper installation of C2 software and the appropriate versions of each application (as identified in TAB G), and any required software updates is vital to the proper functioning and integration of fires C2 systems within the FSCC and the fires C2 architecture.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the appropriate fire support workstations, mission, tasks and objectives as a member of a FSCC/FFCC within a Joint/Combined/Interagency environment, TAB G (Marine Corps Fire Support System Plan) to Appendix 19 (Fire Support) to Annex C (Operations) to Operation Order, commander's guidance and references.

STANDARD: To ensure systems interoperability supports planning, execution and coordination of fires and targeting processes.

PERFORMANCE STEPS:

1. Identify fires C2 and collaboration systems and equipment components.
2. Review software requirements for each fires C2 system as identified in the TAB G (within appropriate Exhibits).
3. Install fires C2 and collaboration systems software and equipment components (as required software images, components, drivers, and application software).
4. Configure fires C2 and collaboration systems software and databases (if required) for operations.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. Unit Digital SOP for Fire Support C2 Systems
-

0861-FSC2-2005: Implement the digital fires information requirements plan

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: FSCC personnel must plan for the collection and management of information from one or more sources and the distribution of that information to one or more audiences. Digital fires information requirements planning is the process that enables effective data distribution for the planning and coordination of fires; and for commanders and staff to formulate and analyze COA's, make decisions and execute those decisions in a timely manner.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the appropriate fire support workstations, mission, tasks and objectives as a member of a FSCC/FFCC within a Joint/Combined/Interagency environment, a higher headquarters operations order, commander's guidance and references.

STANDARD: To support planning, execution, and coordination of fires to facilitate the integration of Joint and MAGTF fire support assets to shape and set conditions to support the concept of operation.

PERFORMANCE STEPS:

1. Review the operations order.
2. Review TAB G (Marine Corps Fire Support System Plan) to Appendix 19 (Fire Support) to Annex C (Operations) to Operation Order.
3. Coordinate with the G6/S6 and IMO to ensure the Annex K supports the TAB G requirements.
4. Modify information management plan based on commander's guidance.
5. Update/disseminate the TAB G to MAGTF and MAGTF Subordinate Commands/elements.
6. Support architecture for fires C2 systems/collaborative tools.
7. Integrate required fires C2 systems/collaborative tools.
8. Implement information exchange requirements.
9. Report C2 systems/collaborative tools status.
10. Prepare updates in response to a dynamic operating environment (RIP/TOA, Retrograde, and Redeployment).

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-43.3 Marine Air-Ground Task Force Fires
3. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

0861-FSC2-2010: Communicate with required fires C2 systems

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Operators and systems administrators must be familiar with processes to establish planned and adhoc communications networks within the fires C2 Systems configuration. Although planned networks and required data for each network should be addressed in the appropriate Exhibit within the TAB G, operators must understand the basics of communications networking via combat net radios, EPLRS, LAN, and wire network communications to establish primary, secondary, and tertiary planned connections.

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the appropriate fire support workstations, mission, tasks and objectives as a member of a FSCC/FFCC, TAB G (Marine Corps Fire Support System Plan) to Appendix 19 (Fire Support) to Annex C (Operations) to Operation Order, commander's guidance and references.

STANDARD: To ensure systems connectivity is established to support planning, execution and coordination of fires; and supports the targeting processes.

PERFORMANCE STEPS:

1. Create a planned communications configuration (i.e., primary, secondary, and tertiary planned connections).
2. Implement and maintain primary communications networks.
3. Configure message setup (e.g., data distribution).
4. Edit a planned communications configuration, as required.
5. Implement alternate communication configurations to support the operation, as required.
6. If required, react to failed communications.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. Unit Digital SOP for Fire Support C2 Systems

0861-FSC2-2015: Maintain fires C2 and collaboration systems

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

DESCRIPTION: Operators and systems administrators must be familiar with maintaining the C2 systems within the FSCC as well as the systems' databases, and materials inside file/folder structures of collaborative sites.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the appropriate fire support workstations, mission, tasks and objectives as a member of a FSCC/FFCC within a Joint/Combined/Interagency environment, TAB G (Marine Corps Fire Support System Plan) to Appendix 19 (Fire Support) to Annex C (Operations) to Operation Order, commander's guidance and references.

STANDARD: To ensure systems support planning, execution and coordination of fires and targeting processes.

PERFORMANCE STEPS:

1. Monitor required fires C2 networks and data links.
2. Conduct system and information assurance (IA) updates.
3. Conduct database updates based on scheme of maneuver or phase of an operation.
4. Reconfigure fires C2 systems architecture (as required), and data distribution.
5. Update and ensure currency of shared materials and products in collaborative sites.
6. Trouble shoot fires C2 systems (as required).
7. Conduct fires C2 system backups.
8. Restore databases, as required.
9. Repair/Replace defective components.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. Unit Digital SOP for Fire Support C2 Systems
-

0861-FSC2-2020: Utilize available geospatial visualization products

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Various mapping applications (i.e., Open-Map, JMTK, Google Earth and Falcon View) can be used as a Geospatial visualization tool and can be used to support planning and coordination of fires.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a fire support workstation with the appropriate mapping tools and products, mission, tasks and objectives as a member of a FSCC/FFCC within a Joint/Combined/Interagency environment, a higher headquarters operations order, commander's guidance and references.

STANDARD: To support planning, execution, and coordination of fires to facilitate the integration of Joint and MAGTF fire support assets to shape and set conditions to support the concept of operation.

PERFORMANCE STEPS:

1. Load appropriate mapping products (i.e., CADRG, CIB, DTED, DPPDB, etc.).
2. Display appropriate map products.
3. Manipulate map products.
4. Use appropriate map data, as required.

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
 2. TM 11-7025-279-10-1 AFATDS Users Manual
-

0861-FSC2-2030: Operate Advanced Field Artillery Tactical Data System (AFATDS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: AFATDS provides an automated capability for fire planning, tactical fire direction, and fire support coordination at the firing battery, fire direction center (FDC), and fire support coordination center (FSCC). AFATDS assists the commander in improving tactical planning and control of supporting arms operations. AFATDS provides an automated capability to integrate supporting arms assets into maneuver plans, provide battlefield information, target analysis, and unit status, while coordinating target damage assessment and sensor operations. The AFATDS workstation receives, transmits, edits, displays and processes fire support requests and stores data to facilitate artillery fire support direction and coordination. AFATDS operates within the existing and planned communication architecture and assists the commander with automated message delivery for coordination of supporting arms fires.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a functional AFATDS workstation a TAB G with relevant system configuration and network communications information, and a functional communications network.

STANDARD: To provide timely and coordinated fire C2.

PERFORMANCE STEPS:

1. Load AFATDS.
2. Initialize AFATDS.
3. Activate the workstation.
4. Display the "Current Situation.
5. Build a planned communications configuration.
6. Edit the database to support the mission and current command/support relationships.

7. Conduct Mission Processing.
8. Conduct Fire Planning.
9. Perform database back up.
10. Troubleshoot AFATDS.
11. Perform proper shut down procedures.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 3. Unit Digital SOP for Fire Support C2 Systems
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0861-FSC2-2035: Operate the Joint Tactical Cop Workstation (JTCW)/Command and Control Personal Computer (C2PC)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: JTCW (C2PC) is the primary integrator of all position location information (PLI) reporting devices in the Marine Corps. It provides a "Near Real-time" digital display of the Common Operational Picture (COP). JTCW is the tool for Operational Planning Teams (OPT) during Course of Action (COA) development, planning and transitioning, through the ability to create and share Digital Overlays. The JTCW is a client workstation designed to meet the needs for a single situational awareness picture or COP within the MAGTF.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a computer (IOW) with the current version of JTCW installed, a functional network and Common Tactical Picture (CTP)/Common Operational Picture (COP) architecture.

STANDARD: In order to receive, produce and display timely and accurate track data and geometries to support staff requirements for operations planning and execution.

PERFORMANCE STEPS:

1. Install C2PC/JTCW Client software on an IOW or other appropriately configured laptop.
2. Perform a role-based log in.
3. Identify features of the C2PC/JTCW Client main window.
4. Apply the toolbar functions of C2PC/JTCW Client toolbars.
5. Configure the C2PC/JTCW gateway manager.
6. Configure the C2PC/JTCW Client.
7. Employ mapping products in C2PC/JTCW Client.
8. Apply the functions of the Routes Application Extension (AE).
9. Apply the functions of the Overlays AE.
10. Manipulate the Track plot AE.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. Unit Digital SOP for Fire Support C2 Systems
-

0861-FSC2-2040: Operate the Effects Management Tool (EMT)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: EMT allows AFATDS (fires) graphics and units to be synchronized with the Joint Tactical COP Workstation (JTCW) (maneuver) picture, providing one common C2 picture for the maneuver commander. This is done by rendering FSCMs and graphics from AFATDS into the JTCW overlay manager and provides a means to transfer JTCW overlays into the AFATDS database. EMT interoperability with JTCW allows position reports generated in AFATDS to pass to the JTCW, as well as JTCW tracks to transfer into AFATDS, via a data exchange handler. EMT also allows key decision makers within the FSCC to view create and manage data within the AFATDS, such as target lists, geometries, and basic fire mission processing without having an in-depth knowledge of the complexity of the system.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given an AFATDS system and an EMT client, a TAB G with relevant system configuration and network communications information, and a communications network.

STANDARD: In order to provide a timely, accurate and detailed battlespace view for planning and coordination of fires.

PERFORMANCE STEPS:

1. Configure EMT version for use. (Install and load).
2. Create EMT user account within AFATDS.
3. Establish a connection.
4. Apply the functions of the main menu bar.
5. Manage maps.
6. Locate C2PC overlays.
7. Set up user preferences.
8. Load map products.
9. Filter unit data.
10. Conduct mission processing.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 3. Unit Digital SOP for Fire Support C2 Systems
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0861-FSC2-2045: Operate Joint Automated Deep Operations Coordination System (JADOCS)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: JADOCS is a software application consisting of managers, databases, and tables that present and manipulate C4I information and communications interfaces to and from various C2 and C4I systems to obtain, coordinate, and disseminate this information. The JADOCS application can reside on any Commercial Off-the-Shelf (COTS) computer with a Windows OS and connected to the appropriate theater networks.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a JADOCS system, a TAB G with relevant system configuration and network communications information, and a communications network.

STANDARD: In order to provide a timely, accurate and detailed battlespace view for planning and coordination of fires.

PERFORMANCE STEPS:

1. Manipulate user preferences within JADOCS.
2. Configure JADOCS View Options.
3. Manage JADOCS Overlays.
4. Apply the functions of Tools within JADOCS.
5. Employ Map functions.
6. Manage databases, as required (e.g., Configuration file).
7. Identify and configure JADOCS Managers.
8. Monitor Mission Status.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 3. Unit Digital SOP for Fire Support C2 Systems
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0861-FSC2-2050: Operate the Joint Targeting Toolbox (JTT) in support of deliberate and HVI Targeting

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 12 months

DESCRIPTION: JTT is a set of web-based software applications, or segments specifically engineered to optimize joint targeting throughout the full spectrum of conflict. JTT provides automated support for targeting requirements at the national, theater, operational and tactical levels.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

GRADES: SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Provided access to the JTT Portal, mission, tasks and objectives as a member of a FSCC/FFCC, a higher headquarters operations order, and commander's guidance.

STANDARD: In order to manage Joint target Lists, manage target folders, and create/edit targets and JDPIs.

PERFORMANCE STEPS:

1. Login to the JTT Web Portal.
2. Configure personal user properties.
3. Manage target folders via the Target Folder Manager.
4. Access the Target Data Matrix Layout Manager to assist in managing the tracking of target development, force application, and combat assessment phases.
5. Access the BDA Workspace Layout Manager to define how BDA Workspace matrices are displayed.
6. Operate the Overlay Editor, Target Query, and Target list functionalities.
7. Operate the JDPI Editor.
8. Operate the Weaponeering Editor.
9. Employ target and JDPI Assessment functionalities.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. Unit Digital SOP for Fire Support C2 Systems

0861-MGTF-2000: Supervise the establishment of MAGTF CE FFCC/ FECC

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

DESCRIPTION: The Force Fire Coordination Center (FFCC)/Force Effect Coordination Center (FECC) serves as the MAGTF commander's principal staff section responsible for the overall planning and execution of fires throughout the MAGTF area of operations.

MOS PERFORMING: 0861

BILLETS: Current Fires/Effects Chief, FFCC/FECC Chief, Fires Plans Chief, Targeting Chief

GRADES: SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a MAGTF CE operating within a

Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To effectively organize personnel and equipment ensuring responsive action is initiated for all incoming/outgoing requirements that facilitates the integration of Joint and MAGTF fires in order to shape and set conditions for MSCs to support the concept of operation.

PERFORMANCE STEPS:

1. Identify physical space, personnel and equipment available.
2. Identify systems and systems architecture requirements.
3. Load, initialize and activate appropriate C2 systems.
4. Build a planned communications configuration and edit databases as required.
5. Establish communication with section, agencies and command to facilitate planning, coordination and execution of fires.
6. Supervise the coordination of required actions and reports with higher, adjacent and supporting units.
7. Supervise the establish fire internal battle rhythm within the overall MAGTF CE staff battle rhythm.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-43.3 Marine Air-Ground Task Force Fires
3. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilize appropriate fire C2 Marine Corps and Joint programs of record.

0861-MGTF-2005: Perform the duties of Force Fires/Effects Chief

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Force Fires/Effects Chief is the G3's representative and is responsible for the smooth and efficient functioning of the Force Fires section to ensure that fires are planned, coordinated and executed to support the commander's intent and guidance. The Force Fires/Effects Chief assists the Force Fires/Effects Officer in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: FFCC/FECC Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a MAGTF CE operating within a

Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure Force Fires/Effects section is effectively planning and integrating kinetic and non-kinetic fires to accomplishment of the mission and commanders intent.

PERFORMANCE STEPS:

1. Supervise the actions of all personnel within the FFCC/FECC.
2. Supervise the establishment of the fires sections watch rotation.
3. Supervise the training and use of fires C2 systems/collaborative tools.
4. Supervise/Review the preparation and distribution of fire related briefs, reports and messages.
5. Supervise/Review the preparation and review of fires and targeting related briefs.
6. Review MSC fire support plans to ensure they support the MAGTFs concept of fires.
7. Supervise/Support Current fires section operations.
8. Supervise/Support Fires Plans section operations.
9. Supervise/Support Targeting section operations.
10. Supervise/Support Information Operation section.
11. Supervise/Support additional attached elements as required.
12. Support the integration FFCC/FECC operations of w/ other related staff section (IO, G3 Air, G5).
13. Advise/Brief the MEF commander/G-3/MAGTF staff on current capabilities, limitations and employment of fires assets.
14. Supervise/Produce and post appropriate products, briefs, reports and materials to fires web page.

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
2. JTCW JTCW Users Manual
3. MCRP 3-16E Fire Support Systems for MAGTF Operations
4. MCWP 3-43.3 Marine Air-Ground Task Force Fires
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. TM 11-7025-279-10-1 AFATDS Users Manual

0861-MGTF-2010: Perform the duties of Force Fires Plans Chief

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Fires Plans Chief supports the development of the Fire Support Plan to effectively integrate kinetic and non-kinetic fires into the commander's CONOPS. The Fires Plans Chief will assist in the preparations of the Operation Order, Branch and Sequel plans as well as Fragmentary Orders. The Force Fires Plans Chief assists the Force Fires Plans Officers in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Fires Plans Chief

GRADES: SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a MAGTF CE operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce plans and orders which support the accomplishment of the mission and commander's intent.

PERFORMANCE STEPS:

1. Supervise training of all appropriate fires personnel in planning battle rhythm, fires C2 systems, products and processes.
2. Identify physical space, personnel and equipment requirements to support planning process.
3. Identify and supervise the loading, initialization and activation of appropriate C2 systems to support planning process, ensuring that all fires C2 systems databases are maintained and updated w/ latest versions of software/patches as required.
4. Support the MCPJP/JOPEs as a member of the OPT/JPG.
5. Develop appropriate staff products for each step of the planning process, operations plans, orders, annexes, appendices and tabs.
6. Support and participate in appropriate daily boards, cells and working groups (Targeting WG/board, IO WG/board, Collection WG/board, G3 Air WG/board, etc.).
7. Advise/Brief the MEF commander/G-3/MAGTF staff on capabilities, limitations and employment of fires assets.
8. Supervise/Produce and post appropriate products, briefs, reports and materials to fires plan web page and status references (Boards, Displays/electronic journals).

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
2. JTCW JTCW Users Manual
3. MCRP 3-16E Fire Support Systems for MAGTF Operations
4. MCWP 3-43.3 Marine Air-Ground Task Force Fires
5. MCWP 5-1 Marine Corps Planning Process (MCPJP)
6. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
7. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide
8. TM 11-7025-279-10-1 AFATDS Users Manual

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilize appropriate fire C2 Marine Corps and Joint programs of record.

0861-MGTF-2015: Perform the duties of Force Fires Plans Clerk

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Fires Plans Clerk supports the development of the Fire Support Plan to effectively integrate kinetic and non-kinetic fires into the commander's CONOPS. The Fires Plans Clerk will assist in the preparations of the products that support the development of Operation Order, Branch and Sequel plans as well as Fragmentary Orders.

MOS PERFORMING: 0861

BILLETS: Fires Plans Clerk

GRADES: LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a MAGTF CE operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce plans and products which support the accomplishment of the mission and commander's intent.

PERFORMANCE STEPS:

1. Load initialize and activate appropriate C2 systems to support Current Fires Section operations, ensuring that all fires C2 systems databases are maintained and updated w/ latest versions of software/patches as required.
2. Support development of appropriate staff products for each step of the planning process, operations plans, orders, annexes, appendices and tabs.
3. Support development of products and briefs for fires planners participating in daily boards, cells and working groups (Targeting WG/board, IO WG/board, Collection WG/board, G3 Air WG/board, etc.).
4. Develop appropriate fires C2 products (guidance, geometries, overlays) to support the operations order, branches, sequels and FRAGOs.
5. Support the production and post appropriate products, briefs, reports and materials to fires plan web page and status references (Boards, Displays/electronic journals).

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
2. JTCW JTCW Users Manual
3. MCRP 3-16E Fire Support Systems for MAGTF Operations
4. MCWP 3-43.3 Marine Air-Ground Task Force Fires
5. MCWP 5-1 Marine Corps Planning Process (MCP)
6. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
7. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide
8. TM 11-7025-279-10-1 AFATDS Users Manual

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilize appropriate fire C2 Marine Corps and Joint programs of record.

0861-MGTF-2020: Perform the duties of Force Fires/Effects Targeting Chief

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Targeting Chief supports MAGTF targeting board and related events and activities, translates deliberate planning for fires into detailed targeting products that enable subordinate and supporting units to develop fires plans and the ATO. He supervises the sponsoring and hosting of the targeting board and chairing of the targeting guidance working group (TGWG). The Targeting Chiefs assists Targeting Officers in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Targeting Chief

GRADES: SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce targeting products that effectively facilitate shaping efforts, set conditions that support the concept of operations and achieve targeting objectives IAW commander's intent.

PERFORMANCE STEPS:

1. Supervise the training of all appropriate staff sections, LNOs, fires personnel in targeting battle rhythm, fires C2 systems, products and processes.
2. Identify physical space, personnel and equipment requirements to support targeting efforts.
3. Identify and supervise the loading, initialization and activation of appropriate C2 systems to support targeting efforts, ensuring that all fires C2 systems databases are maintained and updated w/ latest versions of software/patches as required.
4. Support the development and disseminate the target cycle summary to ensure timelines for product development/delivery, working groups and boards are synchronized with overall battle rhythms.
5. Assist fires planners with writing targeting portion of the order, updating the BSM, DCM and other targeting execution tools.
6. Supervise/Support the development and dissemination of targeting guidance and objectives.
7. Based on operational requirements support MAGTF CE Tactical (D3A), Joint, TST and HVI targeting processes.

8. Supervise, support and participate in appropriate daily boards, cells and working groups (i.e., Targeting WG/board, OPT/JPG, IO WG/board, Collection WG/board, G3 Air WG/board, etc.).
9. Advise/Brief the MAGTF commander/G-3/MAGTF staff on capabilities, limitations and employment of fires assets.
10. Supervise/Produce and post appropriate products, briefs, reports and materials to targeting web page and status references (Displays/electronic journals).

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
 2. JP 3-60 Joint Targeting
 3. JTT Joint Targeting Toolbox (JTT) User's Manual
 4. MCRP 3-16E Fire Support Systems for MAGTF Operations
 5. MCWP 3-43.3 Marine Air-Ground Task Force Fires
 6. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
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0861-MGTF-2025: Perform the duties of the Targeting Clerk

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Targeting Clerk primary responsibility is to support MAGTF targeting board and related events and activities, translates deliberate planning for fires into detailed targeting products that enable subordinate and supporting units to develop fires plans and the ATO. He supervises the sponsoring and hosting of the targeting board and chairing of the targeting guidance working group (TGWG).

MOS PERFORMING: 0861

BILLETS: Targeting Clerk

GRADES: LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce targeting products that effectively facilitate shaping efforts, set conditions that support the concept of operations and achieve targeting objectives IAW commander's intent.

PERFORMANCE STEPS:

1. Load, initializes and activate appropriate C2 systems to support targeting section, ensuring that all fires C2 systems databases are maintained and updated w/ latest versions of software/patches as required.
2. Support the development, posting and dissemination of MAGTF Targeting

Objectives.

3. Support development, posting and dissemination of targeting tools (BSM, DCM, No strike list, RAGM).
4. Support request for additional external capabilities to support MAGTF targeting [Daily Air Ground Reconnaissance (DAGR), ALLOREQ].
5. Support the collection of MSCs AIRSUPREQs.
6. Support the collection and prioritize all kinetic and non-kinetic target nominations based on targeting priorities and designation of main effort.
7. Support the review of published ATOs to verify that sorties and targets are consistent with MAGTF and joint targeting board deliberations.
8. Prepare briefing slides with appropriate graphics for the Target Guidance Working Group, MAGTF targeting board, Reactive Attack Guidance Matrix Working Group and the Synchronization Working Group.
9. Support the conduct of Target Guidance Working Group, MAGTF targeting board, Reactive Attack Guidance Matrix Working Group and the Synchronization Working Group.
10. Support the development a daily brief to MAGTF and Marine Corps component representatives to the Joint Targeting Coordination Board (JTCCB).

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
 2. JP 3-60 Joint Targeting
 3. JTT Joint Targeting Toolbox (JTT) User's Manual
 4. MCRP 3-16E Fire Support Systems for MAGTF Operations
 5. MCWP 3-43.3 Marine Air-Ground Task Force Fires
 6. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
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0861-MGTF-2030: Perform the duties of Force Fires/Effects Current Fires Chief

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Current Fires/Effects Chief primary responsibility is to assist the current fires OIC in supervising the current fire section. The current fires section (CFS) operates in the MAGTF combat operations center (COC) in direct support of current operations. CFS duties are to track and assess fires related changes in the battlespace, make or recommend decisions to exploit opportunities arising from change, and conduct MAGTF-level coordination to render decisions into timely action.

MOS PERFORMING: 0861

BILLETS: Current Fires/Effects Chief

GRADES: SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3

operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure the timely and effective execution of organic and joint fires and the coordination with MSCs, adjacent commands, and Joint commands and agencies.

PERFORMANCE STEPS:

1. Supervise training of all appropriate staff sections, LNOs, fires personnel in current fires battle rhythm, fires C2 systems, products and processes.
2. Identify physical space, personnel and equipment requirements to support targeting efforts.
3. Identify and supervise the loading, initialization and activation of appropriate C2 systems to support CFS operations, ensuring that all fires C2 systems databases are maintained and updated w/ latest versions of software/patches as required.
4. Supervise all Current Fire Section (CFS) administrative requirements.
5. Supervise the flow of information within the fires section.
6. Monitor and ensure the MAGTFs fire support situation is displayed on all appropriate C2 systems employed in the COC.
7. Monitor the execution of the fire support plan, revises and adjusts the plan in keeping with the developing situation per the MAGTF commander's guidance.
8. Supervise the execution and coordination of fires in support of the deep fight and coordinate fires for the close and rear fight, as required.
9. Advise/Brief the MAGTF commander/G-3/MAGTF staff on current capabilities, limitations and employment of fires assets.
10. Supervise/Produce and post appropriate products, briefs, reports and materials to current fires web page and status references (Boards, Displays/electronic journals).

REFERENCES:

1. CPOF BC 10.x.x CPOF User Guide
2. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
3. JTCW JTCW Users Manual
4. MCWP 3-43.3 Marine Air-Ground Task Force Fires
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. TM 11-7025-279-10-1 AFATDS Users Manual

0861-MGTF-2035: Perform the duties of the Current Fires Watch Clerk

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Current Fires Watch Clerk primary responsibility is to support Current fires operations. The current fires section (CFS) operates in the MAGTF combat operations center (COC) in direct support of current operations. CFS duties are to track and assess fires related changes in the battlespace, make or recommend decisions to exploit opportunities arising from change, and conduct MAGTF-level coordination to render decisions into timely action.

MOS PERFORMING: 0861

BILLETTS: Current Fires Watch Clerk

GRADES: LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To assist the timely and effective execution of organic and joint fires and the coordination with MSCs, adjacent commands, and Joint commands and agencies.

PERFORMANCE STEPS:

1. Load, initialize and activate appropriate C2 systems to support Current Fires Section operations, ensuring that all fires C2 systems databases are maintained and updated w/ latest versions of software/patches as required.
2. Support the flow and display of information within the fires section.
3. Monitor and ensure the MAGTF's fire support situation is displayed on all appropriate C2 systems employed in the COC (friendly units, planned, coordinated and executed).
4. Monitor the execution of the fire support plan and revises and adjusts the plan when directed.
5. Support the execution and coordination of fires in support of the deep fight and coordination for the close and rear fight, as required.
6. Support the execution and coordination of mission processing, dynamic targeting, counterfire and TST engagement.
7. Brief the Fires Watch Officers and Chief/MAGTF staff on current capabilities, limitations and status of fires assets.
8. Support the production and post appropriate products, briefs, reports and materials to current fires web page and status references (Boards, Displays/electronic journals).

REFERENCES:

1. CPOF BC 10.x.x CPOF User Guide
2. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
3. JTCW Users Manual
4. MCWP 3-43.3 Marine Air-Ground Task Force Fires
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. TM 11-7025-279-10-1 AFATDS Users Manual

0861-MGTF-2040: Perform the duties of the Air Fires Watch Clerk

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Air Fires Watch Clerk primary responsibility is to support Current fires operations. The current fires section (CFS) operates in the MAGTF combat operations center (COC) in direct support of current operations. CFS duties are to track and assess fires related changes in the battlespace, make or recommend decisions to exploit opportunities arising from change, and conduct MAGTF-level coordination to render decisions into timely action. The Air Clerk assists the Air Fires Officers in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Air Fires Watch Clerk

GRADES: LCPL, CPL, SGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To assist the timely and effective execution of organic and joint fires and the coordination with MSCs, adjacent commands, and Joint commands and agencies.

PERFORMANCE STEPS:

1. Load, initialize and activate appropriate C2 systems to support air fires section, ensuring that all fires C2 systems databases are maintained and updated w/ latest versions of software/patches as required.
2. Support the flow and display of information within the fires section.
3. Monitor and ensure the MAGTFs Air situation is displayed on all appropriate C2 systems employed in the COC (Aircraft, Airfields/FARP, ACMs).
4. Monitor the execution of the ATO.
5. Support direct coordination with TACC & DASC/notify ACE in the event of TBM/NBC threat or attack.
6. Support consolidation Aviation Status Reports.
7. Support the execution and coordination of dynamic targeting/mission processing, counterfire and TST engagement.
8. Brief the Fires Watch Officers and Chief/MAGTF staff on current capabilities, limitations and status of air assets.
9. Support the production and post appropriate products, briefs, reports and materials to current air fires web page and status references (Boards, Displays/electronic journals).

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
2. JTCW JTCW Users Manual
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
5. TM 11-7025-279-10-1 AFATDS Users Manual

0861-MGTF-2045: Perform the duties of a MAGTF fires LNO

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: A MAGTF Fires LNO represents his command and provides specific knowledge and expertise on the planning, coordination and employment of fires support assets, deliberate and dynamic targeting.

BILLETS: Fire Support Officer

GRADES: SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF or GCE Headquarters G/S 3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure Fires are effectively planned, coordinated and executed in support of parent command to accomplish the mission and commander's intent.

PERFORMANCE STEPS:

1. Support the training and use of communication equipment and fires C2 systems/collaborative tools that support the coordination of functions between supported and supporting commands.
2. Support the identification requirements and make recommendations to coordinate functions between supported and supporting commands for allocating fire support assets.
3. Support coordination between supported and supporting commands to support the concept of operations and the commander's intent.
4. Support the Development/Review/Briefing and distribution of fire support plans, fire plans, targeting products, related materials, reports and messages between support and supporting commands.
5. Support various sections within the FFCC/FECC/FSCC, as required.
6. Advise/Brief the Commander/staff on current capabilities, limitations and employment of parent command fires assets.
7. Support and participate in appropriate daily boards, cells and working groups.
8. Support dissemination/posting of appropriate products, briefs, reports and materials to fires web page and status references (Boards, Displays/electronic journals).

REFERENCES:

1. MCWP 3-43.3 Marine Air-Ground Task Force Fires
2. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

0861-PLAN-2000: Support the Marine Corps Planning Process/Joint Operation Planning and Execution System (JOPES)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Fires Plans Chief/Fire Support Chief supports the development of the Fire Support Plan to effectively integrate kinetic and non-kinetic fires into the commander's CONOPS. The Fires Plans Chief will assist in the preparations of the Operation Order, Branch and Sequel plans as well as Fragmentary Orders. He will publish/distribute products produced during planning. The Force Fires Plans Chief assists the Force Fires Plans Officers in the performance of his duties.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fires Plans Chief

GRADES: SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: Produce plans and orders which support the accomplishment of the mission and commanders intent.

PERFORMANCE STEPS:

1. Support preparation for OPT/JPG.
2. Support Problem Framing step of MCPP or Mission Analysis step of JOPEs.
3. Support Course of Action Development step of MCPP or Planning Guidance step of JOPEs.
4. Support Wargame step of MCPP or Staff Estimates step of JOPEs.
5. Support Course of Action Comparison and Decision step of MCPP or Commanders Estimate step of JOPEs.
6. Support Orders Development step of MCPP or CJCS Estimate Review step of JOPEs.
7. Support Transition step of MCPP.
8. Support OPT/JPG daily planning requirements to develop branches, sequels and FRAGOs.

REFERENCES:

1. JOPEs VOL II CJCSI 3110.01 Series JOPEs VOL II CJCSI 3110.01 Series
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MCWP 5-1 Marine Corps Planning Process (MCPP)
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and collaborative tools.

0861-PLAN-2005: Develop fires products during the problem framing step of MCPP

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The purpose of problem framing is to gain understanding of the environment and the nature of the problem as a basis for potential solutions. Problem framing involves three iterative activities: design, task analysis, and staff actions.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fires Plans Chief

GRADES: SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the development of the operations order, branches, sequels and FRAGOs that accomplish the mission and commanders intent.

PERFORMANCE STEPS:

1. Analyze higher HQ's order.
2. Participate in IPB to identify HVT.
3. Assist with CCIR development.
4. Identify assumptions, limitations, specified tasks, shortfalls, critical requirements, ROE and how to exploit enemy COG and CV.
5. Develop, brief and post "Problem Framing/Mission Analysis" brief and fires product to support follow on steps.
6. Receive commander's guidance.
7. Develop fires portion of initial warning to subordinate elements.

REFERENCES:

1. JOPES VOL II CJCSI 3110.01 Series JOPES VOL II CJCSI 3110.01 Series
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MCWP 5-1 Marine Corps Planning Process (MCP)P
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and collaborative tools.

0861-PLAN-2010: Develop fires products during course of action development step of MCPP

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: COA development is the creative step in the planning process where solutions are developed to solve the problems identified in problem framing. COA development begins with planning guidance from the commander based on the learning that took place in problem framing. The commander's intent (purpose and end state) is a form of planning guidance as to how he sees operations unfolding. The commander may also choose to give specific planning guidance on the operation.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fires Plans Chief

GRADES: SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a Company Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the development of the operations order, branches, sequels and FRAGOs that accomplish the mission and commander's intent.

PERFORMANCE STEPS:

1. Produce draft commanders intent for fires, Concept of Fires (COF), by-phase COF with EFST (Task, Purpose), draft HPTLs, FSCMs for each draft COA.
2. Determine shaping, C2, liaison, logistic, ammunition, security, allocation of assets and positioning and displacement requirements to set conditions and accomplish each draft COA.
3. Review and provide input to ROE per COA.
4. Develop Fires Staff Estimates per COA.
5. Begin coordination with G-2 for collections, NAI, TAI and DP requirements.
6. Develop, brief and post the fires portion of the COA development brief.
7. Receive and annotate commander's guidance and commander's wargame evaluation criteria.

REFERENCES:

1. JOPES VOL II CJCSI 3110.01 Series JOPES VOL II CJCSI 3110.01 Series
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MCWP 5-1 Marine Corps Planning Process (MCP)
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and collaborative tools.

0861-PLAN-2015: Develop fires products during wargaming step of MCPP

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 month

DESCRIPTION: The COA wargame is a step-by-step process of action, reaction, and counteraction for visualizing each friendly COA in relation to enemy COAs. COA wargaming enhances situational understanding and stress test each COA to ensure the selected COA will accomplish the assigned mission and commander's intent.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fires Plans Chief

GRADES: SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the development of the operations order, branches, sequels and FRAGOs that accomplishment of the mission and commander's intent.

PERFORMANCE STEPS:

1. Validate, refine and modify fires-related tasks, FSCM, NAI/TAI, POF/main effort and HPTs.
2. Identify additional fire support requirements (i.e., LNOs, TAIs, Shaping, collections).
3. Develop fires portion of the synchronization matrix.
4. Determine advantages and disadvantages of each COA.
5. Refine/modify draft fire support plans and products for each COA.
6. Develop, brief and post the war game brief/ Staff Estimates and fires product to support follow on steps.
7. Receive and Annotate commander's guidance.

REFERENCES:

1. JOPES VOL II CJCSI 3110.01 Series JOPES VOL II CJCSI 3110.01 Series
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MCWP 5-1 Marine Corps Planning Process (MCP)
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and collaborative tools.

0861-PLAN-2020: Develop fires products during course of action comparison and decision step of MCPP

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: During Course of Action Comparison and Decision the commander selects the COA that the OPT will develop into a CONOPS for execution. By comparing friendly COAs with each other using the commander's evaluation criteria, OPT members can assess the merits of each COA regarding risk, simplicity, and supportability. The commander then selects the COA that best accomplishes the mission.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fires Plans Chief

GRADES: SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the development of the operations order, branches, sequels and FRAGOs that accomplishment of the mission and commanders intent.

PERFORMANCE STEPS:

1. Review War game results, commander's guidance and staff estimates.
2. Produce fires estimate of supportability.
3. Participate in comparison and decision discussion.
4. Receive and annotate GC's guidance.
5. Produce fires portion of warning order.

REFERENCES:

1. JOPES VOL II CJCSI 3110.01 Series JOPES VOL II CJCSI 3110.01 Series
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MCWP 5-1 Marine Corps Planning Process (MCP)
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and collaborative tools.

0861-PLAN-2025: Develop fires products during orders development step of MCPP

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The orders development step translates the commander's decision into oral/written/graphic direction sufficient to guide implementation by subordinates.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fires Plans Chief

GRADES: SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce products which support the development of the operations order, branches, sequels and FRAGOs that accomplish the mission and commander's intent.

PERFORMANCE STEPS:

1. Assign Tab and exhibit production to appropriate section (Current, Plans, targeting)/individuals (Tab G Plans and current fires chief).
2. Coordinate with IO for review of IO related portion of order.
3. Continue to update subordinate planners with draft version of plan.
4. Review and forward to Fires officer for refinement and approval for further staffing or inclusion in order.
5. Produce Annex C, Appendix 19, Tabs and exhibits (in GCE format in accordance w/ MCWP 3-16) (as directed).
6. Produce Annex C, Appendix 19, Tabs and exhibits (in MAGTF format in accordance w/ MCWP 3-43.3) (as directed).
7. Produce Annex C, Appendix 17, Tabs and exhibits (in Joint format in accordance w/ JOPES Vol II) (as directed).
8. Coordinate with MSCs and conduct for fires order crosswalk.

REFERENCES:

1. JOPES VOL II CJCSI 3110.01 Series JOPES VOL II CJCSI 3110.01 Series
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MCWP 5-1 Marine Corps Planning Process (MCP)
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and collaborative tools.

0861-PLAN-2030: Develop and refine fires products during transition step of MCPP

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

DESCRIPTION: The transition step may involve a wide range of briefs, drills, or rehearsals necessary to ensure a successful shift from planning to execution. A number of factors can influence how the transition step is conducted, such as echelon of command, mission complexity, and, most importantly, available time.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fires Plans Chief

GRADES: SGT, SSGT, GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the development of the operations order, branches, sequels and FRAGOs that accomplish the mission and commander's intent.

PERFORMANCE STEPS:

1. Post and disseminate the Fire Support portion of the operations order, branches, sequels and FRAGOs.
2. Develop and brief fire portion of transition brief.
3. Develop and conduct fires ROC drill.
4. Make required updates to order and fires products and post updated information.

REFERENCES:

1. JOPES VOL II CJCSI 3110.01 Series JOPES VOL II CJCSI 3110.01 Series
2. MCRP 3-16E Fire Support Systems for MAGTF Operations
3. MCWP 3-43.3 Marine Air-Ground Task Force Fires
4. MCWP 5-1 Marine Corps Planning Process (MCPP)
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. MSTP pamphlet 5-0.2 Operational Planning Team Leader's Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and collaborative tools.

0861-PLAN-2035: Produce the Fire Support Execution Matrix (FSEM)

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

DESCRIPTION: The FSEM is a concise planning and execution tool which graphically displays the fire support plan to facilitate execution. It assists the FSCs, observers, supporting assets, and the maneuver commander in understanding how the fire support plan supports the commander's intent. It is a valuable planning and execution tool for both offense and defense. The matrix explains the portions of the fire support plan that each FSC, FO, and maneuver commander is responsible for executing. When approved by the maneuver commander, the matrix becomes the primary execution tool for the FSC and maneuver commanders.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, an HPTL, references, appropriate communication equipment and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To facilitate timely and effective execution of the fire support plan.

PERFORMANCE STEPS:

1. Support coordination with other staff sections, identify all requirements to successfully execute fire support plan.
2. Identify phases of the operation (i.e., identify data in first row by phase lines, starting at the AA, LOD, through consolidation).
3. Identify the data in the first column (i.e., elements/units, FSCM, etc.).
4. Establish instructions and critical information essential to executing the plan (i.e., Tgts, fire plans, POF, positioning, ammunition allocation, FSCM, etc.).
5. At company level identify primary and alternate executors.
6. Add any additional remarks or coordinating instructions which help clarify information or requirements.
7. Post/Disseminate to appropriate to web-page or with fires C2 systems and or status references (Boards, Displays/electronic journals).

REFERENCES:

1. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
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0861-TGT-2000: Develop High Pay-Off Target List (HPTL)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: A high-payoff target list (HPTL) is the prioritized list of HPTs established and used by targeting personnel and Other fires personnel to develop other targeting tools (BSM, AGM, Target precedence list, DCM),

execute dynamic targeting.

MOS PERFORMING: 0861

BILLETS: Effects Chief, Fire Support Chief, Fires Plans Chief, Targeting Chief

GRADES: SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF or GCE Headquarters G/S 3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce a HPTL which support the MSC submission of target nominations and prioritization for rapid engagement of targets.

PERFORMANCE STEPS:

1. Identify, during the problem framing step of MCPP, commander's guidance that supports deliberate targeting.
2. Support intelligence preparation of the battlefield and support initial target value analysis.
3. Provide a relative ranking of target sets (or categories) based on enemy characteristics within most likely and most dangerous enemy COAs.
4. Identify High value targets in priority of assets that the enemy commander needs to successfully complete a specific COA and identify initial draft High pay-off targets (HPTs).
5. Conduct TVA during COA development in order to convert HVT to HPTs and further refine HPTs for each draft COA. Identify by phase critical/significant event HVTs that may affect friendly operations and consider: (See admin notes below).
6. During Wargame validate draft High pay-off targets.
7. During Orders Development and Transition finalize HPTL and brief/disseminate/post/display via fires C2 and appropriate media.

REFERENCES:

1. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
2. MCWP 3-43.3 Marine Air-Ground Task Force Fires
3. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

MISCELLANEOUS:

- ADMINISTRATIVE INSTRUCTIONS:** Consideration for converting HVTs to HPTs:
- a. Can collection assets acquire the HVT. Identifying primary and alternate means of target acquisition.
 - b. Can the HVT be attacked with lethal or non-lethal assets.
 - c. Is the HVT a "Critical Node," one that will immediately degrade or prevent the enemy from achieving his goal if engaged. Establishing required effects for friendly COA success.
 - d. Is the attack of the HVT necessary to the success of the friendly COA. Identify primary and alternate means of target engagement. Then identify

required type and number of ordnance to achieve require effects.

0861-TGT-2005: Develop a Battlespace Shaping Matrix (BSM)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Fires Plans, Targeting, and Current Chief supports the development of the BSM. The BSM represents the prioritization of the targeting objectives to include target sets. This document serves as the tool utilized for the prioritization of target nominations and the basis for the development of the Reactive Attack Guidance Matrix, both of which will be use in dynamic targeting by current fires. The BSM is developed for each ATO and will change based on a phase, stage and part of an operation. The initial draft of the BSM each day of the ATO is developed in the OPT by fires (Kinetic and non-kinetic) planners in coordination with G-3 and G-2 planners.

MOS PERFORMING: 0861

BILLETS: Current Fires/Effects Chief, Fires Plans Chief, Targeting Chief

GRADES: SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate fires C2 systems as a member of a MAGTF CE operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce a BSM which supports the MSC submission of target nominations, and current fires prioritization for rapid engagement of targets.

PERFORMANCE STEPS:

1. At the OPT/JPG support the identification of BSM data (i.e., Targeting objective, Critical formations, Time and Conditions Estimate, Target sets and subsets and desired effects, non-kinetic requirements to support each objective).
2. At the OPT/JPG support the prioritizing of objectives and target sets and across all objectives.
3. Validate the draft BSM at the TGWG.
4. Brief MAGTF targeting board Chairman on draft BSM for approval, and or modification.
5. Post and disseminate to facilitate MSCs target nominations.
6. Update 12 to 6 hours prior to ATO execution and disseminate to appropriate staff sections.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-43.3 Marine Air-Ground Task Force Fires
3. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: Utilize appropriate fire C2 Marine Corps and Joint programs of record.

0861-TGT-2010: Support development of Damage Criteria Matrix (DCM)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The DCM defines destruction and neutralization by target set. Each target subset describes the endstate and measure of effectiveness to meet destruction and neutralization of that particular target. The DCM is developed for each phase of an operation and will be updated as required from phase to phase. The DCM is posted to the Fires plans section website. The initial draft of the DCM is developed in the OPT by fires (Kinetic and non-kinetic planners) in coordination with G-3 and G-2 planners.

MOS PERFORMING: 0861

BILLETS: Fires Plans Chief, Targeting Chief

GRADES: SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce a matrix which clearly measures and assesses effectiveness of previous shaping to match current enemy strengths and capabilities vs. the BSM desired effect, and to anticipate future fire support requirements.

PERFORMANCE STEPS:

1. Support identification of required target sets and subsets.
2. Support defining the endstate for destruction and neutralization for each target subsets.
3. Support the development of required measures of effectiveness (MOE) to define endstate.
4. Support development of required notes that clarify information contained in the DCM (i.e., JMEMS solutions).
5. Review DCM at appropriate boards, cells and working groups and update as required.
6. Post/disseminate DCM on required website.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. MCWP 3-43.3 Marine Air-Ground Task Force Fires
 3. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
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0861-TGT-2015: Produce an Attack Guidance Matrix (AGM)

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

DESCRIPTION: AGM is a GCE level/tactical (not MAGTF) document that tells how, when, and to what effect an HPT will be engaged. The AGM is incorporated into the maneuver and fire support plans. It is the commanders attack guidance and is designed to support his plan. An AGM that supports the division commander's plan may not support a regiment or battalion commander's plan. There are several variation to AGM formats.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: GYSGT, MSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, an HPTL, references and appropriate communication equipment and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: In order to provide an AGM which allows the prioritized rapid engagement of targets.

PERFORMANCE STEPS:

1. During the OPT utilizing the HPTL, to support the development of AGM data (Target sets/subsets, desired effects, when and the how, target selection standards (format dependent), and provide remarks to clarify information).
2. Prioritize Target sets/subsets and identify attack systems to be used for engagement (format dependent).
3. Post /Disseminate to appropriate commands and to web-page, with fires C2 systems and or status references (Boards, Displays/electronic journals).
4. Repeat process as required to support the commander's concept of operations and the scheme of maneuver.

REFERENCES:

1. JTCW JTCW Users Manual
 2. MCRP 3-16E Fire Support Systems for MAGTF Operations
 3. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
 4. TM 11-7025-279-10-1 AFATDS Users Manual
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0861-TGT-2020: Develop a Target Precedence List

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

DESCRIPTION: The Battalion Commander's list of types of mobile potential targets arranged in the order in which they are to be attacked.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, an HPTL, references and appropriate communication equipment and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: In order to provide a Target Precedence List which allows the prioritized rapid engagement of targets.

PERFORMANCE STEPS:

1. During the planning utilize the HPTL to support the identification of target subsets and further breakdown specific sub-elements as required (i.e., AT-17 anti-tank team, SA-7 gunner).
2. Identify desired effects.
3. Add remarks to clarify information.
4. Prioritization of targets identified.
5. Post /Disseminate to appropriate to web-page, with fires C2 systems and or status references (Boards, Displays/electronic journals).
6. Repeat process as required to support the commander's concept of operations and the scheme of maneuver.

REFERENCES:

1. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
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0861-TGT-2025: Develop a Quick Fire Plan

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Quick fire support plan responds to immediate requirements using fire support assets available. Normally, time does not permit detailed evaluation of targets and fire planning by fire support agencies. Fire Support Team members assist in identifying targets to be engaged, allocate available fire support assets to engage the targets, schedules associated fires, and determine other pertinent information.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

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

INITIAL TRAINING SETTING: MOJT

CONDITION: Given the appropriate fire support workstations, mission, tasks and objectives as a member of a FSCC, a higher headquarters operations order, commander's guidance, and priority of fires.

STANDARD: In order to respond with an effective and coordinated volume of fires from fire support assets available in response to an immediate requirement.

PERFORMANCE STEPS:

1. Receive the Operations Order and Commander's guidance.
2. Understand priority of fires.
3. Plan targets, desired effects, and timing of target engagement.
4. Determine available assets and notify firing assets and appropriate FSCC.
5. Create a schedule of fires using automated or manual means.
6. Transmit the fire plan.
7. Execute the quick fire plan.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
3. Unit Digital SOP for Fire Support C2 Systems

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and manual methods.

SIMULATION SUPPORT: This event may be conducted and/or supplemented with the use of a Category I or II simulation devices and a simulation device operator.

0861-TGT-2030: Develop a Fire Plan

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: A tactical plan for using the weapons of a unit or formation so that their fire will be coordinated. Fire plans are developed by supporting arm agencies and incorporated into the fire support plan.

MOS PERFORMING: 0861

BILLETS: Fire Support Man

GRADES: CPL, SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: FORMAL

CONDITION: Given the appropriate fire support workstations, mission, tasks and objectives as a member of a FSCC/FFCC, a higher headquarters operations order, commander's guidance, and priority of fires.

STANDARD: To provide an effective and coordinated fires from available fire support assets.

PERFORMANCE STEPS:

1. Develop the fire plan (i.e., Program, Prep, Counter-Prep, or Barrage).
2. Plan targets, desired effects, and timing of target engagement.
3. Determine available assets and notify appropriate agencies.
4. Add targets to the fire plan.
5. Instruct targets digitally.
6. Create a schedule of fires.
7. Compute the fire plan.
8. Transmit the fire plan.
9. Execute the fire plan.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-16 Fire Support Coordination in the Ground Combat Element
3. Unit Digital SOP for Fire Support C2 Systems

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: This event will be conducted utilizing appropriate fire C2 and manual methods.

0861-TGT-2035: Conduct dynamic targeting

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: Dynamic targeting is the reactive engagement of emerging targets (targets which fall inside the normal ATO/ITO planning cycle) with kinetic and non-kinetic fires IAW the MAGTF Commander's priorities.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief, Fire Support Man

GRADES: CPL, SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF/GCE Headquarters operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To support the timely and effective execution of organic and joint fires and the coordination with MSCs, adjacent commands, and Joint commands and agencies.

PERFORMANCE STEPS:

1. Conduct training of all appropriate staff sections, LNOs, fires personnel

- in fires C2 systems that support dynamic targeting processes and products.
2. Support Identifying Target Data.
 3. Conduct Evaluation of Target Validity, Priority and Initial Requirement.
 4. Conduct Attack Decision.
 5. Identify/Select appropriate asset.
 6. Sending Fire Order/Request and perform additional deconfliction/integration.
 7. Conduct following-up with confirmation of attack/BDA.
 8. Assess re-attack requirement.
 9. Make re-attack decision.
 10. Execution of fires under special situations, when required.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
 2. MCWP 3-43.3 Marine Air-Ground Task Force Fires
 3. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
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0861-TGT-2040: Supervise deliberate targeting at the GCE

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

DESCRIPTION: The Joint Targeting Cycle is the methodology or process by which the JFC conducts deliberate targeting. The Division Fire Support Chief support the MAGTF conduct deliberate targeting concentrated and continuous process that supports the MEF Commander's concept of operations and battlespace preparation.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: GYSGT, MSGT, MGYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce targeting products that effectively facilitate shaping efforts, set conditions that support the concept of operations and achieve targeting objectives IAW commander's intent.

PERFORMANCE STEPS:

1. Supervise training of all appropriate staff members, LNOs, fires personnel in targeting battle rhythm, products and processes.
2. Review daily MAGTF targeting guidance, objectives and BSM.
3. Coordinate and produce target nominations with the appropriate division staff sections that support the division concept of operations.
4. Support production/Review/Submit Division air support requirements and

- recommendations to MAGTF targeting section and Division LNO.
5. Support production/Review/Submit Division recommendations to daily Air Ground Reconnaissance (DAGR) (Collections Requirements) to MAGTF targeting section and Division LNO.
 6. Submit Division prioritized target nominations to MAGTF targeting section and Division LNO.
 7. Ensure a division LNO is present at the MAGTF Target Guidance Working Group to provide the Divisions position on targeting matters.
 8. Submit Division briefing products for MAGTF targeting board.
 9. Ensure a division LNO is present at the Targeting and Collections Board to brief Division targeting products.
 10. Ensure a division LNO is present to support the Reactive Attack Guidance Matrix Working Group and the Synchronization Working Group to provide Division's position on targeting matters.
 11. Monitor the execution and assessment of the ATO/deliberate targets.

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
 2. JP 3-60 Joint Targeting
 3. JTT Joint Targeting Toolbox (JTT) User's Manual
 4. MCRP 3-16E Fire Support Systems for MAGTF Operations
 5. MCWP 3-43.3 Marine Air-Ground Task Force Fires
 6. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
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0861-TGT-2045: Supervise MAGTF Deliberate Targeting (Joint Targeting Process/Product Development)

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Joint Targeting Cycle is the methodology or process by which the JFC conducts deliberate targeting. The Targeting Chief supports the MAGTF deliberate targeting process that supports the MEF Commander's concept of operations and battlespace preparation.

MOS PERFORMING: 0861

BILLETS: Targeting Chief

GRADES: CPL, SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To produce targeting products that effectively facilitate shaping efforts, set conditions that support the concept of operations and achieve targeting objectives IAW commander's intent.

PERFORMANCE STEPS:

1. Supervise training of all appropriate staff sections, LNOs, fires personnel in targeting battle rhythm, products and processes.
2. Develop and disseminate daily targeting guidance and create draft integrated and prioritized MEF targeting objectives.
3. Conduct Target Guidance Working Group. (see admin notes)
4. Support collection of MSCs submission of Air Support Requests and collection Air Support Estimates from MSCs.
5. Support ACE ALLOREC submission to C/JFACC and review of SORTIEALLOT from C/JFACC.
6. Support submission of DS ATO to C/JFACC for Merge into ATO.
7. Post/Disseminate BSM & receive Tgt-Noms from MSCs and Apportionment Recommendation.
8. Support MEF G3 Air prioritization of ASRs and receive and organize all Targeting and Collections Board briefing products and Collections Input from MSCs and other staff section for targeting board.
9. Conduct Targeting and Collections Board and get target nom modified, refined and approved into draft JIPTL.
10. Support the Reactive Attack Guidance Matrix Working Group and the Synchronization Working Group.
11. Support submission of Direct Source and Common Source Tgt-Noms.

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
2. JP 3-60 Joint Targeting
3. JTT Joint Targeting Toolbox (JTT) User's Manual
4. MCRP 3-16E Fire Support Systems for MAGTF Operations
5. MCWP 3-43.3 Marine Air-Ground Task Force Fires
6. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

MISCELLANEOUS:

- ADMINISTRATIVE INSTRUCTIONS:** Conduct Target Guidance Working Group:
- a. Review and refine draft BSM and DCM
 - b. Review draft Daily Air-Ground Reconnaissance Report (DAGR)
 - c. Review Approved BSM & Target Noms
 - d. Apportionment Recommendation

0861-TGT-2050: Execute Time Sensitive Targeting (TST) at the GCE

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Fire Support Chief supports the execution of targets of such high priority to friendly forces that the JFC designates them as requiring immediate response because they pose (or will soon pose) a danger to friendly forces or are highly lucrative, fleeting targets of opportunity.

MOS PERFORMING: 0861

BILLETS: Fire Support Chief

GRADES: CPL, SGT, SSGT, GYSGT, MSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, references and appropriate communication equipment and fires C2 systems as a member of a GCE COC operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure the timely and effective execution of organic and joint fires and the coordination with subordinate, adjacent commands, and Joint commands and agencies.

PERFORMANCE STEPS:

1. Supervise training of all appropriate staff members, LNOs, fires personnel in fires C2 systems that support TST processes and products.
2. Support the review of target information placed in the TST manager in JADOCs by G2, the MAGTF CE or component command.
3. Supervise the coordination and planning for engagement via JADOCs TST manager with HHQ and all components and internal staff sections.
4. Supervise coordination with internal staff, other MSCs and MAGTF CE to determine the best option for weapon target pairing via appropriate fires C2 systems.
5. Supervise CDE and CAT II level mensuration as required.
6. Provide GCE/MAGTF engagement options to HHQ for decision via JADOCs TST manager.
7. If the JTF chooses the MAGTF to execute support engagement of TST, and coordinate (time, location) with the MAGTF and other MSC agency that controls the weapons platform via appropriate fires C2 systems.
8. Supervise continuous coordination with external (higher and adjacent) agencies via JADOCs and internal Division staff coordination to support TST engagement.
9. Supervise/Support the coordination to receive phase I BDA.

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
2. JP 3-60 Joint Targeting
3. MCRP 3-16E Fire Support Systems for MAGTF Operations
4. MCWP 3-43.3 Marine Air-Ground Task Force Fires
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

0861-TGT-2055: Supervise/support the execution of Time Sensitive Targeting at the MAGTF CE

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Current Fire Chief supports the execution of targets of such high priority to friendly forces that the JFC designates them as requiring immediate response because they pose (or will soon pose) a danger to friendly forces or are highly lucrative, fleeting targets of opportunity.

MOS PERFORMING: 0861

BILLETS: Current Fires Watch Clerk, Current Fires/Effects Chief

GRADES: CPL, SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure the timely and effective executions of organic and joint fires and the coordination with MSCs, adjacent commands, and Joint commands and agencies.

PERFORMANCE STEPS:

1. Supervise training of all appropriate staff sections, LNOs, fires personnel in fires C2 systems that support TST processes and products.
2. Support the review of target information placed in the TST manager in JADOCs by G2 reactive targeting cell or by component command.
3. Supervise/Support the coordination and planning for engagement via JADOCs TST manager with HHQ and all components and internal staff sections.
4. Supervise/Support internal staff and MSC to ensure coordination is conducted to determine the best option for weapon target pairing via appropriate fires C2 systems.
5. Supervise/Support CDE and CAT II level mensuration as required.
6. Supervise/Support providing MAGTF engagement decision to HHQ for decision via JADOCs TST manager.
7. If the MAGTF is chosen, supervise engagement of TST, and coordinate (time, location) with MSC agency that controls the weapons platform via appropriate fires C2 systems.
8. Supervise/Support the continuous coordination with external (higher and adjacent) agencies via JADOCs. Current Fires will conduct internal MAGTF coordination to support TST engagement.
9. Supervise/Support the coordination to receive phase I BDA.

REFERENCES:

1. JADOCs version BC 10.x.x Joint Automated Deep Operations Coordination System USMC Job Aids
2. JP 3-60 Joint Targeting
3. MCRP 3-16E Fire Support Systems for MAGTF Operations
4. MCWP 3-43.3 Marine Air-Ground Task Force Fires
5. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide
6. TM 11-7025-279-10-1 AFATDS Users Manual

0861-TGT-2060: Supervise/support FFCC/FECC counterfire operations

EVALUATION-CODED: NO

SUSTAINMENT INTERVAL: 6 months

DESCRIPTION: The Current Fires Chief supports the planning and execution of both "proactive" and "reactive" counterfire. Counterfire is the synchronized and integrated delivery of fires intended to destroy or neutralize adversary's fire support capabilities (indirect fire weapons (FA and ADA), radars, and logistic support).

MOS PERFORMING: 0861

BILLETS: Current Fires Watch Clerk, Current Fires/Effects Chief

GRADES: CPL, SGT, SSGT, GYSGT

INITIAL TRAINING SETTING: MOJT

CONDITION: Given a higher headquarters order (warning/operations) or directive (mission/task), commander's guidance, MAGTF Appendix 19, references and appropriate fires C2 systems as a member of a MAGTF Headquarters G3 with or without a FAHQ operating within a Joint/Combined/Interagency environment across the Range of Military Operations (ROMO).

STANDARD: To ensure the MAGTF is capable of planning and executing proactive and reactive counterfire to rapidly engage and defeat the adversary's fire support capabilities.

PERFORMANCE STEPS:

1. Supervise training of all appropriate staff sections, LNOs, fires personnel in fires C2 systems that support counterfire processes and products.
2. Supervise/Support the establishment of a counterfire cell within the current fires section.
3. Supervise/Support prior planning and coordination for counterfire (IPB, NAIs, TAIs, CFZ, CFFZ, CZ, CSBs, PAH, TAH, etc.).
4. Understand ROE requirements and there effects on CF.
5. Supervise/Support identifying Target Data.
6. Supervise/Support attack decision and identify/select appropriate asset/send fire order.
7. Supervise/Support follow-up with confirmation of attack/BDA.
8. Supervise/Support re-attack decision.

REFERENCES:

1. MCRP 3-16E Fire Support Systems for MAGTF Operations
2. MCWP 3-43.3 Marine Air-Ground Task Force Fires
3. MSTP pamphlet 3-0.3 MAGTF Fires Reference Guide

MISCELLANEOUS:

ADMINISTRATIVE INSTRUCTIONS: During COIN operations a CF Analysis by Fires, G-2, and TAP personnel of enemy IDF capabilities and trends may be required to support both proactive and reactive CF taking in to account:

- a. Enemy Capabilities
- b. Enemy TTP
- c. Locations/ Timing
- d. Avenues of approach
- e. Caches/Facilities.

ARTILLERY T&R MANUAL

APPENDIX A

ACRONYMS AND ABBREVIATIONS

ACMAirspace Coordinating Measures
AFATDS	Advanced Field Artillery Tactical Data System
AHA	Ammunition Holding Area
AGM	Attack Guidance Matrix
ATO	Air Tasking Order
BFST	Battalion Fire Support Team
BOC	Battery Operations Center
BSM	Battlespace Shaping Matrix
BUCS	Backup Computer System
C2	Command and control
C2PC	Command and Control Personal Computer
C2W	Command and control warfare
C4	Command, Control, Communications, and Computers
C4I	Command, Control, Communications, Computers, and Intelligence
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
CA	Civil Affairs
CAG	Civil Affairs Group
CAS	Close Air Support
CCIR	Commander's Critical Information Requirements
CDE	Collateral Damage Estimate
CE	Command Element
CFF	Call for Fire
CFST	Company Fire Support Team
CI	Counterintelligence
CJCS	Chairman of the Joint Chiefs of Staff
CJCSI	Chairman of the Joint Chiefs of Staff Instruction
CJCSM	Chairman of the Joint Chiefs of Staff manual
CMR	Consolidated Memorandum Receipt
CMO	Civil-Military Operations
CNA	Computer Network Attack
CND	Computer Network Defense
CNE	Computer Network Exploitation
CNO	Computer Network Operations
CONOPS	Contingency Operations
COA	Course Of Action
COG	Centers Of Gravity
COMSEC	Communications Security
COP	Common Operational Picture
CP	Counter-Propaganda
CSD	Chief of Section Display
DAGR	Defense Advanced GPS Receiver
DAP	Distant Aiming Point
DCM	Damage Criteria Matrix
DFST	Division Fire Support Team
DPR	Daily Process Report

EFST Essential Fire Support Tasks
EMT. Effects Management Tool
ERO. Equipment Repair Order
EROSL. Equipment Repair Order Shopping List
EW Electronic Warfare
FAC. Forward Air Controller
FAC. Field Artillery Chief
FASCAM Family of Scatterable Mines
FDC. Fire Direction Center
FECC Force Effect Coordination Center
FFCC Force Fire Coordination Center
FFE. Fire For Effect
FiST Fire Support Team
FSCC Fire Support Coordination Center
FSCM Fire Support Coordination Measures
FSEM Fire Support Execution Matrix
FSR. Field Service Representative
FST. Fire Support Team
GCE. Ground Combat Element
GFT. Graphical Firing Table
GIC. Geospatial Information Center
HIMARS HIMARS High Mobility Artillery Rocket System
HOB. Height of Burst
HPT. High-Payoff Targets
HPTL High Payoff Target List
HVT. High Value Targets
IPB. Intelligence Preparation of the Battlefield
JADOCs Joint Automated Deep Operations Coordination System
JFO. Joint Fires Observer
JIPTL. Joint Integrated Prioritized Target List
JOPES. Joint Operation Planning and Execution System
JTAC Joint Terminal Air Controller
LCMR Lightweight Counter Mortar Radar
MARES. Marine Corps Automated Readiness Evaluation System
MC&G Mapping, Charting & Geodesy
MCPP Marine Corps Planning Process
METT-TS-L. Mission, Enemy, Terrain, Weather, Troops, Time,
Space, And Logistics
MTO. Message to Observer
MVS. Muzzle Velocity System
MVV. Muzzle Velocity Management
NAI. Named Areas of Interest
NGF. Naval Gunfire
NSFS Naval Surface Fire Support
ODT. Observer Digital Terminal
OPT. Operational Planning Teams
PMCS Preventive Maintenance Checks and Services
POC. Platoon Operations Center
QRF. Quick Reaction Force
RFST Regimental Fire Support Team
ROMO Range of Military Operations
RSS. Re-Supply System
SEAD Suppression of Enemy Air Defense
SINCGARS Single Channel Ground Radio and Airborne Radio System

SITEMP Situation Template
TFT Tabular Firing Table
TLDHS Target Location Designation and Hand-Off System
TGWG Targeting Guidance Working Group
TIO Target Information Officer
TMO Target Mensuration Only
TOF Time of Flight
TOT Time on Target
TPC Target Processing Center
TST Time-Sensitive Targets
TTT Time to Target
TVA Target Value Analysis
UFCS Universal Fire Control System
UTM Universal Transverse Mercator
VA Vertical Angle

ARTILLERY 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. A professional discussion of training events or operations conducted after all training to promote learning among training participants. The formality and scope increase with the command level and size of the training evolution. For longer exercises, they should be planned for at predetermined times during an exercise. The results of the AAR shall be recorded on an after action report and forwarded to higher headquarters. The commander and higher headquarters use the results of an AAR to reallocate resources, reprioritize their training plan, and plan for future training.

Assessment. An informal judgment of the unit's proficiency and resources made by a commander or trainer to gain insight into the unit's overall condition. It serves as the basis for the midrange plan. Commanders make frequent use of these determinations during the course of the combat readiness cycle in order to adjust, prioritize or modify training events and plans.

C

Chaining. A process that enables unit leaders to effectively identify subordinate collective events and individual events that support a specific collective event. For example, collective training events at the 4000-level are directly supported by collective events at the 3000-level. 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.

Collective Event. A clearly defined, discrete, and measurable activity, action, or event (i.e., task) that requires organized team or unit performance and leads to accomplishment of a mission or function. A collective task is derived from unit missions or higher-level collective tasks. Task accomplishment requires performance of procedures composed of supporting collective or individual tasks. A collective task describes the exact performance a group must perform in the field under actual operational conditions. The term "collective" does not necessarily infer that a unit accomplishes the event. A unit, such as a squad or platoon conducting an attack; may accomplish a collective event or, it may be accomplished by an individual to accomplish a unit mission, such as a battalion supply officer

completing a reconciliation of the battalion's CMR. Thus, many collective events will have titles that are the same as individual events; however, the standard and condition will be different because the scope of the collective event is broader.

Collective Training Standards (CTS). Criteria that specify mission and functional area unit proficiency standards for combat, combat support, and combat service support units. They include tasks, conditions, standards, evaluator instruction, and key indicators. CTS are found within collective training events in T&R Manuals.

Combat Readiness Cycle. The combat readiness cycle depicts the relationships within the building block approach to training. The combat readiness cycle progresses from T&R Manual individual core skills training, to the accomplishment of collective training events, and finally, to a unit's participation in a contingency or actual combat. The combat readiness cycle demonstrates the relationship of core capabilities to unit combat readiness. Individual core skills training and the training of collective events lead to unit proficiency and the ability to accomplish the unit's stated mission.

Combat Readiness Percentage (CRP). The CRP is a quantitative numerical value used in calculating collective training readiness based on the E-coded events that support the unit METL. CRP is a concise measure of unit training accomplishments. This numerical value is only a snapshot of training readiness at a specific time. As training is conducted, unit CRP will continuously change.

Component Events. Component events are the major tasks involved in accomplishing a collective event. Listing these tasks guide Marines toward the accomplishment of the event and help evaluators determine if the task has been done to standard. These events may be lower-level collective or individual events that must be accomplished.

Condition. The condition describes the training situation or environment under which the training event or task will take place. Expands on the information in the title by identifying when, where and why the event or task will occur and what materials, personnel, equipment, environmental provisions, and safety constraints must be present to perform the event or task in a real-world environment. Commanders can modify the conditions of the event to best prepare their Marines to accomplish the assigned mission (e.g. in a desert environment; in a mountain environment; etc.).

Core Competency. Core competency is the comprehensive measure of a unit's ability to accomplish its assigned MET. It serves as the foundation of the T&R Program. Core competencies are those unit core capabilities and individual core skills that support the commander's METL and T/O mission statement. Individual competency is exhibited through demonstration of proficiency in specified core tasks and core plus tasks. Unit proficiency is measured through collective tasks.

Core Capabilities. Core capabilities are the essential functions a unit must be capable of performing during extended contingency/combat operations. Core unit capabilities are based upon mission essential tasks derived from

operational plans; doctrine and established tactics; techniques and procedures.

Core Plus Capabilities. Core plus capabilities are advanced capabilities that are environment, mission, or theater specific. Core plus capabilities may entail high-risk, high-cost training for missions that are less likely to be assigned in combat.

Core Plus Skills. Core plus skills are those advanced skills that are environment, mission, rank, or billet specific. 2000-level training is designed to make Marines proficient in core skills in a specific billet or at a specified rank at the Combat Ready level. 3000-8000-level training produces combat leaders and fully qualified section members at the Combat Qualified level. Marines trained at the Combat Qualified level are those the commanding officer feels are capable of accomplishing unit-level missions and of directing the actions of subordinates. Many core plus tasks are learned via MOJT, while others form the base for curriculum in career level MOS courses taught by the formal school.

Core Skills. Core skills are those essential basic skills that "make" a Marine and qualify that Marine for an MOS. They are the 1000-level skills introduced in entry-level training at formal schools and refined in operational units.

D

Defense Readiness Reporting System (DRRS). A comprehensive readiness reporting system that evaluates readiness on the basis of the actual missions and capabilities assigned to the forces. It is a capabilities-based, adaptive, near real-time reporting system for the entire Department of Defense.

Deferred Event. A T&R event that a commanding officer may postpone when in his or her judgment, a lack of logistic support, ammo, ranges, or other training assets requires a temporary exemption. CRP cannot be accrued for deferred "E-Coded" events.

Delinquent Event. An event becomes delinquent when a Marine or unit exceeds the sustainment interval for that particular event. The individual or unit must update the delinquent event by first performing all prerequisite events. When the unit commander deems that performing all prerequisite is unattainable, then the delinquent event will be re-demonstrated under the supervision of the appropriate evaluation authority.

E

E-Coded Event. An "E-Coded" event is a collective T&R event that is a noted indicator of capability or, a noted Collective skill that contributes to the unit's ability to perform the supported MET. As such, only "E-Coded" events are assigned a CRP value and used to calculate a unit's CRP.

Entry-level training. Pipeline training that equips students for service with the Marine Operating Forces.

Evaluation. Evaluation is a continuous process that occurs at all echelons, during every phase of training and can be both formal and informal. Evaluations ensure that Marines and units are capable of conducting their combat mission. Evaluation results are used to reallocate resources, reprioritize the training plan, and plan for future training.

Event (Training). 1) An event is a significant training occurrence that is identified, expanded and used as a building block and potential milestone for a unit's training. An event may include formal evaluations. 2) An event within the T&R Program can be an individual training evolution, a collective training evolution or both. Through T&R events, the unit commander ensures that individual Marines and the unit progress from a combat capable status to a Fully Combat Qualified (FCQ) status.

Event Component. The major procedures (i.e., actions) that must occur to perform a Collective Event to standard.

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.

Individual Training. Training that applies to individual Marines. Examples include rifle qualifications and HMMWV driver licensing.

Individual Training Standards (ITS). Specifies training tasks and standards for each MOS or specialty within the Marine Corps. In most cases, once an MOS or community develops a T&R, the ITS order will be cancelled. However, most communities will probably fold a large portion of their ITS into their new T&R manual.

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.

Marine Corps Ground Training and Readiness (T&R) Program. The T&R Program is the Marine Corps' primary tool for planning and conducting training, for planning and conducting training evaluation, and for assessing training readiness. The program will provide the commander with standardized programs of instruction for units within the ground combat, combat support, and combat service support communities. It consolidates the ITS, CTS, METL and other individual and unit training management tools. T&R is a program of standards that systematizes commonly accepted skills, is open to innovative change, and above all, tailors the training effort to the unit's mission. Further, T&R serves as a training guide and provides commanders an immediate assessment of unit combat readiness by assigning a CRP to key training events. In short, the T&R Program is a building block approach to training that maximizes flexibility and produces the best-trained Marines possible.

Mission Essential Task(s) MET(s). A MET is a collective task in which an organization must be proficient in order to accomplish an appropriate portion of its wartime mission(s). MET listings are the foundation for the T&R manual; all events in the T&R manual support a MET.

Mission Essential Task List (METL). Descriptive training document that provides units a clear, war fighting focused description of collective actions necessary to achieve wartime mission proficiency. The service level METL, that which is used as the foundation of the T&R manual, is developed using Marine Corps doctrine, operational plans, T/Os, UJTL, UNTL, and MCTL. For community based T&R manuals, an occupational field METL is developed to focus the community's collective training standards. Commanders develop their unit METL from the service-level METL, operational plans, contingency plans, and SOPs.

O

Operational Readiness (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 unit Marine 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.

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

R

Readiness. (DoD) Readiness is the ability of U.S. military forces to fight and meet the demands of the national military strategy. Readiness is the synthesis of two distinct but interrelated levels: (a) Unit readiness--The ability to provide capabilities required by combatant commanders to execute assigned missions. This is derived from the ability of each unit to deliver the outputs for which it was designed. (b) Joint readiness--The combatant commander's ability to integrate and synchronize ready combat and support forces to execute assigned missions.

S

Section Skill Tasks. Section skills are those competencies directly related to unit functioning. They are group rather than individual in nature, and require participation by a section (S-1, S-2, S-3, etc).

Simulation Training. Simulators provide the additional capability to develop and hone core and core plus skills. Accordingly, the development of simulator training events for appropriate T&R syllabi can help maintain valuable combat resources while reducing training time and cost. Therefore, in cases where simulator fidelity and capabilities are such that simulator training closely matches that of actual training events, T&R Manual developers may include the option of using simulators to accomplish the training. CRP credit will be earned for E-coded simulator events based on assessment of relative training event performance.

Standard. A standard is a statement that establishes criteria for how well a task or learning objective must be performed. The standard specifies how well, completely, or accurately a process must be performed or product produced. For higher-level collective events, it describes why the event is being done and the desired end-state of the event. Standards become more specific for lower-level events and outline the accuracy, time limits, sequencing, quality, product, process, restrictions, etc., that indicate the minimum acceptable level of performance required of the event. At a minimum, both collective and individual training standards consist of a task, the condition under which the task is to be performed, and the evaluation criteria that will be used to verify that the task has been performed to a satisfactory level.

Sustainment Training. Periodic retraining or demonstration of an event required maintaining the minimum acceptable level of proficiency or capability required to accomplish a training objective. Sustainment training goes beyond the entry-level and is designed to maintain or further develop proficiency in a given set of skills.

Systems Approach to Training (SAT). An orderly process for analyzing, designing, developing, implementing, and evaluating a unit's training program to ensure the unit, and the Marines of that unit acquire the knowledge and skills essential for the successful conduct of the unit's wartime missions.

T

Training Task. This describes a direct training activity that pertains to an individual Marine. A task is composed of 3 major components: a description of what is to be done, a condition, and a standard.

U

Unit CRP. Unit CRP is a percentage of the E-coded collective events that support the unit METL accomplished by the unit. Unit CRP is the average of all MET CRP.

Unit Evaluation. All units in the Marine Corps must be evaluated, either formally or informally, to ensure they are capable of conducting their combat

mission. Informal evaluations should take place during all training events. The timing of formal evaluations is critical and should, when appropriate, be directly related to the units' operational deployment cycle. Formal evaluations should take place after the unit has been staffed with the majority of its personnel, has had sufficient time to train to individual and collective standards, and early enough in the training cycle so there is sufficient time to correctly identified weaknesses prior to deployment. All combat units and units' task organized for combat require formal evaluations prior to operational deployments.

Unit Training Management (UTM). Unit training management is the use of the SAT and Marine Corps training principles in a manner that maximizes training results and focuses the training priorities of the unit on its wartime mission. UTM governs the major peacetime training activity of the Marine Corps and applies to all echelons of the Total Force.

W

Waived Event. An event that is waived by a commanding officer when in his or her judgment, previous experience or related performance satisfies the requirement of a particular event.

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APPENDIX C

SIMULATION

Listed in this appendix are applicable simulators/simulations available to improve training for both individual Marines and unit training. Simulators and simulations provide the capability to develop and hone core and core plus competencies and capabilities. Accordingly, the use of training modeling and simulation systems for appropriate T&R events can help maintain valuable combat resources while reducing training time, cost, and risk. For more information regarding training Modeling & Simulation (M&S) Systems, review website: <https://ehqmc.usmc.mil/org/mccdc/TECOM/directorates/MTSB/Internal/default.aspx>

1. 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. 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. 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.

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) is an interactive immersive training environment for convoy operations during combat, focusing on command and control. Other training capabilities include call for fire, call for close air support, mounted patrols, logistics support, high target extraction, MEDEVAC, and procedures for use of weapons in compliance with rules of engagement (ROE) and local TTPs. A single CCS suite of six vehicles provides for individual, crew, and platoon level training (up to 30 Marines at a time). The CCS trains Marines to approved standards of combat skills and readiness.

4. Deployable Virtual Training Environment (DVTE) is a deployable laptop PC based simulation system capable of emulating organic and supporting Infantry Battalion weapons systems and training scenarios to facilitate T&R based training. DVTE provides each installation and deployed Marine Forces with MAGTF (MEU level) Staff training, individual and collective skills

sustainment, rapid planning, and almost spontaneous mission rehearsal capability. DVTE increases training of individual and unit core skills enhancing a rapid, innovative and interactive small-unit leader decision making, and increased combined arms Training and pre-certification capability. The following is a list of the DVTE training applications/capabilities:

a. Virtual Battlespace 2 (VBS2) is an interactive, three-dimensional synthetic environment in which small unit tactics may be practiced among team members. Photo-realistic terrain, user created mission scenarios, and variable environmental conditions enhance the team training experience. Mission planning and mission rehearsal can be executed from squad to platoon level. VBS2 can be used to support Fire Support Training, convoy operations and tactical guided discussions.

b. Recognition of Combatants (ROC) a series consisting of applications covering Improvised Explosive Device (ROC-IED), Suicide Bomber (ROC-SB), Vehicle (ROC-V), and Aerial (ROC-Aerial) are self paced computer based training tools designed to improve awareness and recognition of various combatant capabilities and functional considerations.

c. Operational and Tactical Language and Cultural Training System (OTCLTS) is a self paced language and cultural training application that allows the user to learn Iraqi Arabic, Indonesian, Pashto, Dari, and French languages along with cultural considerations.

d. Forward Observer PC Simulator (FOPCSIM) is an individual Fires trainer which provides training on the basic concepts of fire support. FOPCSIM is a procedural trainer for artillery and mortar Call for Fire. FOPCSIM is also the forward observer component of the Deployable Virtual Training Environment (DVTE) Combined Arms Network (CAN) that provides a training tool for integration of artillery and close air support with maneuver forces.

e. Combined Arms Planning Tool (CAPT) is a standalone tool that can be used to enter and test all elements of your fire support plan. Doctrinal rules have been incorporated into the program, so that once the fire support plan is entered, CAPT runs a "rules based" test on the plan to identify potential trouble areas.

f. Combined Arms Network (CAN) is a computer based training tool that provides standard based training for individual Forward Observers, Forward Air Controllers and Joint Terminal Attack Controllers (JTAC) as well as team training for company fire support teams (FiST). CAN currently supports JTAC/JFO certification training under the TACP T&R Manual.

5. 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.

6. For more information on current simulations, contact your local Simulation Centers. The following is the contact information:

a. Battle Simulation Centers (Scheduling Office)

(1) I MEF: (760) 725-2385

(2) II MEF: (910) 451-5435

(3) III MEF:

- MCB Camp Butler: 011-81-611-722-7219/ DSN 315 622-7219/7516
- MCB Hawaii: Simulators & Trainers must be scheduled via

RFMSS. 3MAR Simulations Center: (808) 257-2440/ DSN 457-2440 POC Sgt Brannan

(4) MAGTF TC: (760) 830-1366/1382

b. Ground Training Simulators (Scheduling Office)

(1) MCB Camp Lejeune: (910) 451-7392

(2) MCB Camp Pendleton: Simulators & Trainers can be scheduled via RFMSS. Training Support Division Help Desk/Ref Desk (760) 725-4444.

(3) MCB Camp Butler: Tactical Training Devices and Simulators Support Section Help Desk, 011-81-98-969-2610/DSN: 623-2610.

(4) MCB Hawaii: Simulators & Trainers must be scheduled via RFMSS. G3 Ops & Training Scheduling Office: (808) 257-8816/ DSN 457-8816. Modeling & Simulations Division (M&S): (808) 257-1110/ DSN 457-1110.

(5) MAGTF-TC: DVTE (760) 830-5622; SAVT (760) 362-2324; CACCTUS (760) 830-1382; CCS (760) 830-4192 & ISMT (760) 830- 4187. Schedule ODS and HMMWV Egress Assistance Trainer via RFMSS.

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APPENDIX B

CLASS V(W) REQUIRED FOR ARTILLERY TRAINING

1. The Class V listed in this appendix is required to train both the individual collective.
2. The following table lists the Class V requirements for a typical cannon battery.

DODIC	NOMENCLATURE	PER BATTERY
A059	Cartridge, 5.56mm Ball M855 10/Clip	130,400
A063	Cartridge, 5.56mm Tracer M856 Single	4,000
A064	Cartridge, 5.56mm 4 Ball M855/1 Trac	9,000
A131	Cartridge, 7.62mm 4 Ball M80/1 Trace	9,000
A518	Cartridge, Caliber .50 4 SLAP M903/1	3,600
A576	Cartridge, Caliber .50 4 API M8/1 AP	9,000
B542	Cartridge, 40mm HEDP M430/M430A1 Lin	9,000
B546	Cartridge, 40mm HEDP M433	9,000
CA45	Cartridge, 120mm Mortar High Explosive	864
CA46	Cartridge, 120mm Mortar Illumination	864
CA49	Cartridge, 120mm Mortar Smoke M1103	864
D505	Projectile, 155mm Illuminating M485A	36
D529	Projectile, 155mm High Explosive M79	2,570
D544	Projectile, 155mm High Explosive M10	2,700
D550	Projectile, 155mm Smoke White Phosph	2,160
DA12	Charge, Propellant 155mm MACS M231	1,768
DA13	Charge, Propellant 155mm MACS M232	2,010
DA45	Projectile, 155mm Excalibur	498
DWGU	Tail Charge Assembly (TCA) M237	864
K143	Mine, Antipersonnel M18A1 with M57	50
L328	Signal, Cartridge Red Flare	230
L495	Flare, Surface Trip M49 Series	120
N291	Fuze, Proximity M732A2 Sub f/NA09	324
N340	Fuze, Point Detonating M739/M739A1	7,366
N523	Primer, Percussion M82	7,566
NA09	Fuze, Multi-Option M782	324
NA15	Fuze, Electronic Time M767A1	1,062
NA17	Fuze, Electronic Time M762A1	324

3. The following table lists the Class V requirements for a typical HIMARS battery.

DODIC	NOMENCLATURE	PER BATTERY
A059	Cartridge, 5.56mm Ball M855 10/Clip	100,800

A131	Cartridge, 7.62mm 4 Ball M80/1 Trace	9,600
A555	Cartridge, Caliber .50 Ball M33 Link	30,004
A576	Cartridge, Caliber .50 4 API M8/1 AP	12,000
B542	Cartridge, 40mm HEDP M430/M430A1 Lin	9,216
G900	Grenade, Hand Incendiary Thermite	6
H185	Rocket, Pod 298mm Practice Red Range	4,560
HA51	Rocket, 298mm Tactical Unitary M31A1	3,456

4. The following table lists the Class V requirements for a 0802 Fire Support Officer and 0861 Fire Support Man.

DODIC	NOMENCLATURE	PER 0802	PER 0861
CA45	Cartridge, 120mm Mortar High Explosive	310	466
CA46	Cartridge, 120mm Mortar Illumination	84	42
CA49	Cartridge, 120mm Mortar Smoke M1103	60	40
D501	Projectile, 155mm ADAM-L M692		12
D503	Projectile, 155mm Anti-Tank RAAMS-L		12
D505	Projectile, 155mm Illuminating M485A	70	70
D528	Projectile, 155mm Smoke White Phosph	64	44
D529	Projectile, 155mm High Explosive M79	494	12
D544	Projectile, 155mm High Explosive M10		667
D563	Projectile, 155mm High Explosive DPICM		52
DA12	Charge, Propellant 155mm MACS M231	420	784
DA13	Charge, Propellant 155mm MACS M232	6	
DA45	Projectile, 155mm Excalibur	6	
DWGU	Tail Charge Assembly (TCA) M237	60	40
N285	Fuze, MTSQ M577/M577A1 without Boost		24
N289	Fuze, Electronic Time M762A1 Sub f/N	120	166
N290	Fuze, Electronic Time M767A1 Sub f/N		8
N340	Fuze, Point Detonating M739/M739A1	494	683
N523	Primer, Percussion M82	628	869
NA28	Fuze, Precision Guidance Kit M1156	6	
D339	5-INCH/54 HE FUZE PD		210
D353	5-INCH/54 ILLUM		84
D326	5-INCH/54 HE FUZE QUICK		30
D295	5-INCH/54 HE FUZE CVT		60