

# Training and Evaluation Outline Report

**Task Number:** 07-3-3135

**Task Title:** Register a Parallel Mortar Sheaf (Section-Platoon)

**Distribution Restriction:** Approved for public release; distribution is unlimited.

**Destruction Notice:** None

**Foreign Disclosure: FD1** - This training product has been reviewed by the training developers in coordination with the MCOE G2 foreign disclosure officer. This training product can be used to instruct international military students from all approved countries without restrictions.

**Supporting Reference(s):**

Step Number	Reference ID	Reference Name	Required	Primary
	ATTP 3-21.90	Tactical Employment of Mortars	Yes	Yes
	DA FORM 2188-R	Data Sheet (LRA)	No	No
	DA FORM 2399-R	Computer's Record (LRA)	No	No
	FM 3-22.90	Mortars	Yes	No
	FM 3-22.91	Mortar Fire Direction Center Procedures	Yes	No

**Condition:** The unit is in a firing position and has received a request to conduct a registration mission. The unit has a current meteorological message; all necessary personnel and equipment including, if available, the Mortar Fire-Control System (MFCS) or the Lightweight Handheld Mortar Ballistic Computer (LHMBC); communications with higher, adjacent, and subordinate elements. The unit is provided guidance by the Rules of Engagement (ROE). It may also have Mission Instructions, such as a peace mandate, Terms of Reference, and Status of Forces Agreement (SOFA). Coalition forces, noncombatants, government agencies, nongovernment organizations, and local and international media may be in the operational environment. Some iterations of this task should be performed in MOPP 4.

**Standard:** The unit registers, adjusts its parallel sheaf, and applies all corrections to mortars and firing data within 12 minutes. The unit complies with the ROE.

**Safety Risk:** Low

<b>Task Statements</b>
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**Cue:** The unit is in a firing position and has received a request to conduct a registration mission.

<b>DANGER</b>
None

<b>WARNING</b>
None

# CAUTION

None

**Remarks:** None

**Notes:** None

## TASK STEPS

\* 1. PLAN - Unit leader gains and or maintains situational understanding using available communications equipment, maps, intelligence summaries, situation reports (SITREPs), and other available information sources. Intelligence sources include company intelligence support team (CoIST) human intelligence (HUMINT), signal intelligence (SIGINT), and imagery intelligence (IMINT) to include unmanned aircraft systems (UAS) and unattended ground sensors (UGS).

2. PREPARE - The forward observer (FO) or fire-direction center (FDC) selects a registration point that was easily identifiable on the ground and on the map. It was also a fixed point and was relatively permanent.

3. The FDC prepares to conduct the registration mission.

a. Constructs firing charts using FDC computers.

b. Determines the initial data and sent it to the guns within 2 minutes after the last element of the call for fire or, if equipped with the Mortar Fire-Control System (MFCS) or the Lightweight Handheld Mortar Ballistic Computer (LHMBC), 1 minute and 30 seconds.

c. Determines all subsequent corrections with the MFCS or LHMBC.

d. Records all firing data on computer's record (DA Form 2399-R).

e. Keeps the data sheet current (DA Form 2188-R).

Note: [FDC not present] The element leader determines the direction and distance from the firing position to the target, and prepares the initial fire command in accordance with steps 2a through 2d.

4. Base mortar element registered. Registration was complete when the final adjusting round impacted within 25 meters of the registration point.

a. Lay mortar for deflection/azimuth and/or elevation change.

b. Performs battle drill 07-4-D9339, "Fire the Mortar."

c. Computes, but if adjusting round, impacted less than 50 meters from the registration point, did not fire the correction.

d. Fires the final adjusting round within 8 minutes after receiving the target location.

5. The FDC prepares to adjust the parallel sheaf.

Note: All MFCS/LHMBC-equipped units should skip to step 7c.

a. Initiates message to the observer to prepare to adjust the sheaf.

b. Transmits the fire command to sheaf-adjusting mortars IAW FO's order to FIRE SECTION RIGHT or FIRE SECTION LEFT.

6. Sheaf-adjusting element adjusts (60mm, 81mm or 120mm mortars).

a. Lay mortar for deflection/azimuth and/or elevation change.

(1) Battle drill 07-3-D9270, "Lay 81mm Mortar for Direction with M2 Compass."

(2) Battle drill 07-4-D9275, "Lay for Large Deflection and Elevation Change."

b. Performs battle drill 07-4-D9339, "Fire the Mortar."

c. Fires at 10-second intervals.

Note: Base element should fire only if requested by the FO.

7. If the angle "T" was between 500 and 2700 mils, then the mortar element adjusted the parallel sheaf, first as "coverage," then opened to parallel.

a. Refires corrections of 50 meters or more.

b. Fires last sheaf-adjusting round within 4 minutes after firing the first sheaf-adjusting round or, if equipped with the MFCS or the LHMBBC, within 2 minutes and 30 seconds.

Note: [Live fire only] Sheaf was parallel when the distances between the last adjusting rounds of the mortars equaled the distances between the mortars themselves.

8. The mortar element realigns the aiming posts and revises the firing data.

a. Refers each sheaf-adjusting mortar to the deflection of the base mortar to within 0 mils.

b. [Sheaf-adjusting elements] Realigns aiming posts (following the FO's correction to the last sheaf-adjusting round) within 75 seconds (day) or 120 seconds (night). If equipped with MFCS or the LHMBBC, did so within 60 seconds (day) or 90 seconds (night).

c. Realigns aiming posts within plus or minus 1 mil of the referred deflection.

d. [FDC computers] Applies registration corrections to existing targets within the transfer limits of the registration point (within 400 mils left or right of registration point; within 1,500 meters above or below the registration point).

\* 9. The leader reports completion of the registration mission to the commander.

10. The unit complies with ROE.

11. Unit continues mission as directed.

(Asterisks indicates a leader performance step.)

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Unit leader gained and or maintained situational understanding.			
2. The forward observer (FO) or fire-direction center (FDC) selected a registration point.			
3. The FDC prepared to conduct the registration mission.			
4. Base mortar element registered.			
5. The FDC prepared to adjust the parallel sheaf.			
6. Sheaf-adjusting element adjusted.			
7. If the angle "T" was between 500 and 2700 mils, then the mortar element adjusted the parallel sheaf.			
8. The mortar element realigned the aiming posts and revised the firing data.			
9. The leader reported completion of the registration mission.			
10. The unit complied with ROE.			
11. Unit continued mission as directed.			

TASK PERFORMANCE / EVALUATION SUMMARY BLOCK							
ITERATION	1	2	3	4	5	M	TOTAL
TOTAL PERFORMANCE MEASURES EVALUATED							
TOTAL PERFORMANCE MEASURES GO							
TRAINING STATUS GO/NO-GO							

**ITERATION:** 1 2 3 4 5 M

**COMMANDER/LEADER ASSESSMENT:** T P U

**Mission(s) supported:** None

**MOPP 4:** Sometimes

**MOPP 4 Statement:** None

**NVG:** Sometimes

**NVG Statement:** None

**Prerequisite Collective Task(s):** None

**Supporting Collective Task(s):**

Step Number	Task Number	Title	Proponent	Status
	07-3-3018	Fire Mortars by Direct Alignment (Section-Platoon)	07 - Infantry (Collective)	Approved
	07-3-3054	Fire a Mortar Adjust Fire Mission (Section-Platoon)	07 - Infantry (Collective)	Approved
	07-3-3099	Fire a Mortar Priority Target Mission (Section-Platoon)	07 - Infantry (Collective)	Approved
	07-3-3117	Conduct Simultaneous Mortar Fire Missions (Section-Platoon)	07 - Infantry (Collective)	Approved
	07-3-5090	Process a Mortar Call for Fire Mission (Section-Platoon)	07 - Infantry (Collective)	Approved

**Supporting Individual Task(s):**

Step Number	Task Number	Title	Proponent	Status
	061-283-2104	Conduct a Mortar Registration	061 - Field Artillery (Individual)	Approved
	071-074-0044	Supervise a Mortar Squad	071 - Infantry (Individual)	Approved
	071-082-0001	Place a Mortar Ballistic Computer into Operation	071 - Infantry (Individual)	Approved
	071-082-0004	Program Safety Data in a Mortar Ballistic Computer	071 - Infantry (Individual)	Approved
	071-082-0005	Program No-Fire Data in a Mortar Ballistic Computer	071 - Infantry (Individual)	Approved
	071-11C-0003	Lay a 60-mm Mortar for Deflection and Elevation	071 - Infantry (Individual)	Approved
	071-11C-0102	Lay an 81-mm Mortar for Deflection and Elevation	071 - Infantry (Individual)	Approved
	071-11C-0202	Lay a 120-mm Mortar for Deflection and Elevation	071 - Infantry (Individual)	Approved
	071-11C-0302	Place a Mortar Fire Control (MFCS) System into Operation	071 - Infantry (Individual)	Approved
	071-11C-0320	Compute Data for Manual Simultaneous Missions Using a Mortar Fire Control System (MFCS)	071 - Infantry (Individual)	Approved
	071-11C-0721	Compute Meteorological Firing Corrections	071 - Infantry (Individual)	Approved
	071-11C-1000	Fire a Mortar	071 - Infantry (Individual)	Approved
	071-11C-1001	Engage Targets with a 60-mm, 81-mm, or 120-mm Mortar Using Direct Lay	071 - Infantry (Individual)	Approved
	071-11C-1008	Lay a Mortar Using Direct Alignment	071 - Infantry (Individual)	Approved
	071-11C-1204	Lay a Ground-Mounted Mortar Using an M2 Compass	071 - Infantry (Individual)	Approved
	071-11C-1208	Control the Expenditure of Mortar Ammunition	071 - Infantry (Individual)	Approved
	071-11C-1209	Record Information on Firing Records	071 - Infantry (Individual)	Approved
	071-11C-1214	Perform Duties as a Fire Direction Center (FDC) Chief	071 - Infantry (Individual)	Approved
	071-11C-1300	Supervise a Mortar Platoon	071 - Infantry (Individual)	Approved
8.	071-11C-1002	Refer and Realign Aiming Post	071 - Infantry (Individual)	Approved
9.	171-121-4051	Prepare a Situation Report (SITREP)	171 - Armor (Individual)	Approved

**Supporting Drill Task(s):** None

**Supported AUTL/UJTL Task(s):**

Task ID	Title
ART 3.2	Provide Fire Support

**TADSS**

Step ID	TADSS ID	Title	Product Type	Quantity
	06-111/A	Call For Fire Trainer (CFFT) 1:4 Configuration	SIM	1
	07-13B	Pneumatic Mortar Trainer/ M32A1	DVC	1
	GTA 07-01-017	Mortar Fire Without a Fire Direction Center (Local TADSS – Not in TSMATS/PAM 25-30)	GTA	1

**Equipment (LIN)**

Step ID	LIN	Nomenclature	Qty
No equipment specified			

**Materiel Items (NSN)**

Step ID	NSN	LIN	Title	Qty
	1220-01-521-1611	M32043	Computer, Ballistics, Hand-Held: Mortar Ballistic Computer (LHMBC), M32	1
	1230-01-503-7784	F83625	Fire Control System, Mortar: M95	1

**Environment:** Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. .

**Safety:** In a training environment, leaders must perform a risk assessment in accordance with ATP 5-19, Risk Management. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. .