



DEPARTMENT OF THE ARMY

1st Battalion 19th Infantry Regiment
Mortar Training Company
Infantry Mortar Leader Course
BLDG. 3440 5079 Moyer RD.
Fort Benning, GA. 31905

ATSH-TBK-H-IMLC

1 DECEMBER 2015

MEMORANDUM OF INSTRUCTION

SUBJECT: U.S. Army Infantry Mortar Leaders Course (IMLC) Mobile Training Team (MTT) Package Requirements for FY16

1. **Purpose:** To identify the support assets required to conduct an IMLC MTT Package and inform U.S. Army units so they can accurately plan for a successful IMLC MTT.
2. **Concept:** The MTT package will consist of a 5 week Infantry Mortar Leaders Course, which will be conducted at a unit's home station. A team of 4 certified IMLC Instructors will train anywhere from 12 to 32 Indirect-fire Infantryman, who will be awarded upon completion an Additional Skills Identifier (ASI), of B1 for Enlisted and 3Z for Officers. At the completion of this course unit leaders will be able to organize their mortar squads/sections/platoons to better prepare for worldwide combat operations.
3. **Request Process:** Before an MTT can be reserved, the requesting unit will need to submit a formal request through their MACOM to HRC. HRC will forward the request to TRADOC, who will send it to the United States Army Infantry School G-3. Once the USAIS and the 198th Infantry Regiment approve the request Infantry Mortar Leaders Course (IMLC) will begin the necessary coordination. The only initial coordination IMLC is authorized to conduct is providing an interested unit with the MOI and the contact information for United States Army Infantry Center G-3 and the 198th Infantry Brigade S-3. The MCoE contact numbers are as follows:
 - a. USAIS G-3 Tasking Office: (706) 545-7616
 - b. 198th Infantry Regiment S-3: (706) 544-0077
 - c. Infantry Mortar Leader Course: (706) 626-4731/4733
4. **MTT Request Timeline:**
 - a. T-180 – IMLC will be notified by 198th Infantry Regiment S-3 of tasking and will provide a POC for the requesting unit.
 - b. T-90– IMLC will establish contact with the requesting unit's POC and will verify the POC has received all support requirements.
 - c. T-60-45– IMLC cadre will conduct a site recon of the receiving unit's

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assets, ranges, and facilities; producing an MTT training schedule that will be presented to the unit, the Cadres identified, and the requesting unit will provide a LNO.

d. T-30– MOA (Memorandum of Agreement) will be sent by the USAIC G-3 to the requesting unit's G-3 outlining deficiencies that must be corrected to execute the MTT.

e. T-30– Requesting Unit is to establish Site funds (LOA); POC to request IMLC to ship equipment.

f. T-15– final coordination with receiving Unit/LNO.

g. T-3– IMLC cadre to arrive at site and begins preparation for execution of MTT.

h. T+31-33 (Graduation Week) – The IMLC Master Trainer and a representative from 1st BN 19th IN BN will conduct an onsite visit and conduct the graduation for the students.

Funding: All required funds for Cadre travel and billeting are to be placed in DTS. All questions regarding the establishment of the fund site should be directed to your DTS Specialist

5. **Student Prerequisites:** All prerequisites are established by the USAIC at FBGA.

a. The following statement can be found on the ATTRS page:

The Infantry Commandant is the waiver approval authority for this course. Students requesting course/phase prerequisite waivers (e.g. AOC/MOS, Rank/Grade, Medical/Physical Standards, etc.) or units requesting changes to POI content (e.g. during "on site" course conducts (MTT) request to delete/modify lessons/blocks of instruction, shortage of equipment, etc.) will submit their request through the first LTC Commander in their chain of command to:

Commandant, U.S. Army Infantry School
ATTN: ATSH-IP, 1 Karker St, Suite 6107
Ft Benning, GA 31905.

Waivers (minus Medical/Physical) must be submitted NLT 75 days prior to the class start date. Waivers for Medical/Physical requirements must be submitted NLT 90 days prior to class start date.

b. Sergeant through Sergeant First Class with an MOS of 11C or 18 CMF and Officers, Lieutenant through Captain.

c. Specialists will only be allowed to enter the course with a waiver from the USAIS.

d. Ranger Battalions may enroll Private First Class in the course per USAIC agreements.

e. Students are required to bring all items on the packing to the course.

See "Packing List" at:

<http://www.benning.army.mil/infantry/197th/229/IMLC/>

6. Course Descriptions: IMLC is a three phase course designed to teach students the basic skills needed to conduct mortar missions on the modern battlefield. The course is divided into three main areas of instruction; hands on training, classroom instruction and live fire exercise.

See “**Course Outline**” at: <http://www.benning.army.mil/infantry/197th/229/IMLC/>

a. Phase One (Hands on Training): During this portion of training, students will be exposed to all mortar platforms that are currently in the US Army inventory. Students will primarily be dealing with the ground mounted 60mm, 81mm and 120mm mortar systems, receiving reinforcement training on these systems, characteristics, capabilities, and components. Each student will continue their mortar lifelong learning with exposure to the M2A2 Aiming Circle and be required to place this instrument into action and successfully employ a platoon. If the situation permits the students will be familiarized with the Stryker and Track Variant U.S. Army Mortar platforms, culminating in a LFX without an FDC.

- i. **Outcomes:** Each Student will take a hands-on exam on the following subjects and receive a GO on each to pass.
1. Mounting and level an M2 series aiming circle.
 2. Declination of an M2 series aiming circle.
 3. Conducting reciprocal lay on a grid azimuth.

b. Phase Two: During the classroom portion of the training students will receive in-depth instruction on all Fire Direction Center procedures. This consists of the M16 Plotting Board (Basic and Advance procedures), the M95/96 Mortar Fire Control System, and the M32 Lightweight Handheld Mortar Ballistic Computer. Students will also cover the Tactical Employment of Mortars, Forward Observer Procedures and Fire Support Planning to ensure that they can advise the commander on how to best employ mortars in Full Spectrum Operations.

- i. **Outcomes:** Each Student will take a written exam on the following subjects and be required to score a 70% or better to pass.
1. FDC 1 –
 - a. Prepare the Observed Firing Chart (Pivot-Point, Below-Pivot-Point), Modified Observed Chart, and Surveyed Chart within 100% accuracy.
 - b. Compute Grid, Shift, and Polar Fire Missions within +/- 10 Mils for deflection and +/- 25 Meters in range.
 - c. Apply No Fire data (Safety Fan and Fire Support

Coordination_Measures {FSCM}) to M16 Plotting Board with 100% accuracy.

- d. Compute Angle-T, determine to the nearest Mil, Record to the nearest 10 Mils, and send to the nearest 100 Mils (MTO); when in excess of 500 Mils and less than 2700 Mils.
- e. Compute Registration Mission and Re-registration Mission within +/- 10 Mils for deflection and +/- 25 Meters in range while determining Deflection Correction and Range Correction Factor.
- f. Compute Mark-Center of Sector Fire Mission within +/- 10 Mils for deflection and +/- 25 Meters in range.
- g. Compute Sheaf Adjustment Fire Mission within +/- 10 Mils for deflection and +/- 25 Meters in range.
- h. Record and Computing Meteorological Data (MET) and applying data with 100% accuracy.
- i. Utilize Mortar Firing Tables to record information on Firing_records with 100% accuracy.
- j. Determine correct charge and elevation with 100% accuracy.

2. FDC 2 – Prepare the Modified Observed and Surveyed Firing Chart with 100% accuracy.

- a. Compute Search, Traverse, Simultaneous, Final Protective Fire, Quick Smoke and Immediate Smoke Missions within +/- 10 Mils for deflection and +/- 25 Meters in range.
- b. Calculate total number of rounds required for Search and Traverse missions to adequately cover the given area target with 100% accuracy.
- c. Compute Illumination and Coordinated Illumination Missions within +/- 10 Mils for deflection and 50 Meters in range and utilize Tabular Firing Tables to calculate Height of Burst and Fuze settings corresponding with calculated range and Height Adjustment with 100% accuracy.
- d. Utilize Smoke Card for Quick Smoke Mission establishment and maintenance phases with 100% accuracy.
- e. Apply No Fire Data to M16 Plotting Board with 100% accuracy.
- f. Compute Angle-T, determined to nearest 1 Mil, Recorded to nearest 10 Mils, and sent to Forward Observer as a Message to Observer (MTO) to the

- nearest 100 Mils; only when Angle-T is determined to be > or = 500 Mils and < or = 2700 Mils.
- g. Utilize Deflection Conversion Table (DCT) to calculate individual gun corrections with 100% accuracy.
 - h. Utilize Mortar Firing Tables to record information on firing records with 100% accuracy.
 - i. Determine correct charge and elevation with 100% accuracy.
 - j. Student will take a written exam and score a 70% or better to pass.
3. M95/96 Mortar Fire Control System (MFCS) –
- a. Identify the nomenclature, characteristics, capabilities and components of the Mortar Fire Control System (MFCS) with 100% accuracy.
 - b. Place the M95 / 96, commanders interface (CI) into operation with 100% accuracy.
 - c. Select, input, and process data for a manual Grid, Shift, Polar, and Quick Fire Mission within +/- 1 Mil for deflection and no error in range.
 - d. Program and store safety data into the commanders interface (CI) with 100% accuracy.
 - e. Manually enter and apply new data using the M95/96 MFCS with 100% accuracy.
 - f. Compute data for a manual registration mission using the M95/96 MFCS within +/- 1 Mil for deflection and no error in range.
 - g. Compute data for manual converge mission using the M95/96 MFCS within +/- 1 Mil for deflection and no error in range.
 - h. Compute data for a manual special sheaf mission using a M95/96 MFCS within +/- 1 Mil for deflection and no error in range.
 - i. Compute data for a manual simultaneous (SIMO) mission using the M95/96 MFCS within +/- 1 Mil for deflection and no error in range.
 - j. Compute data for a manual final protective fire mission using the M95/96 MFCS within +/- 1 Mil for deflection and no error in range.
 - k. Maintain the M95/96 Mortar Fire Control System with 100% accuracy.
 - l. Record information on firing records with 100% accuracy.
 - m. Student will take a written exam and score a 70% or

better to pass.

4. M32 Lightweight Handheld Mortar Ballistic Computer (LHMBC)-
 - a. Identify the nomenclature, characteristics, capabilities and components of the M32 LHMBC with 100% accuracy.
 - b. Maintain power systems for the M32 LHMBC with 100% accuracy.
 - c. Program a M32 LHMBC for initial operation in a Fire Direction Center (FDC) configuration with 100% accuracy.
 - d. Identify the Fire Support Coordination Measures (FSCMs) inside the M32 LHMBC with 100% accuracy.
 - e. Compute firing data for a manual Grid, Shift, Polar, and Hip Shoot Mission using a M32 LHMBC within +/- 1 Mil for deflection and no error in range.
 - f. Input Safety Fan data using a M32 LHMBC with 100% accuracy.
 - g. Input a MET (Meteorological) message using a M32 LHMBC with 100% accuracy.
 - h. Compute data for a manual registration mission using the M32 LHMBC within +/- 1 Mil for deflection and no error in range.
 - i. Compute data for a manual Split Section Mission using a M32 LHMBC within +/- 1 Mil for deflection and no error in range.
 - j. Compute data for a Manual Illumination and Coordinated Illumination Mission using a LHMBC within +/- 1 Mil for deflection and no error in range.
 - k. Compute data for a manual Search and Traverse Mission using a M32 LHMBC within +/- 1 Mil for deflection and no error in range..
 - l. Compute data for a manual Final Protective Fire (FPF) Mission using a M32 LHMBC within +/- 1 Mil for deflection and no error in range.
 - m. Compute data for a manual Quick Smoke Mission using a M32LHMBC within +/- 1 Mil for deflection and no error in range.
 - n. Compute data for a Direct Lay Mission using a M32 LHMBC within +/- 1 Mil for deflection and no error in range.
 - o. Record information on firing records with 100% accuracy.

p. Student will take a written exam and score a 70% or better to pass.

c. Phase Three: Consists of Fires Planning and Tactical Employment, culminating in a LFX with an FDC, employing all the lessons that the students have learned throughout the course.

i. **Outcomes:** Each Student will take a written exam on the following subjects and are required to score a 70% or better to pass.

1. Fire Support Planning-

- a. Identify the Positive and Negative Characteristics of Selected Mortar systems.
- b. Identify Doctrinal targeting terms and symbols.
- c. Identify Offensive and Defensive planning considerations.
- d. Identify the fire support coordination measures with their definitions.
- e. Identify the key players and their responsibilities in the fire planning process.
- f. Identify the Principles and products associated with top down fire planning.
- g. Student will take a written exam and score a 70% or better to pass.

2. Tactical Employment - This block of instruction discusses

- a. Understand the mortar's mission in current and future operations
- b. Understand tactical employment techniques and procedures,
- c. Identify weapons and equipment organic to a mortar unit.
- d. Student will take a written exam and must score a 70% or better to pass.

7. **Support Personnel:** The host unit will be responsible for providing the following personnel:

- a. Dedicated Liaison Officer with an ASI 3Z or Liaison NCO with an ASI B1 (LNO); this individual cannot function as an OIC, RSO or AI during the length of the MTT due to the amount of coordination that may be required.
- b. Range Officer in Charge (OIC), Safety Officer (RSO), and Safeties (RS) for all live fire ranges and training areas used throughout the MTT.
- c. Medical support IAW with post regulations for required events throughout the course.

8. **Equipment:** The host unit is responsible for providing all equipment listed in the "Equipment List" annex.
 - a. See "Equipment List" at <http://www.benning.army.mil/infantry/197th/229/IMLC/>
 - b. IMLC cadre will provide all FDC equipment used throughout the course. The host unit should have backup FDC equipment accessible to the LNO in case primary equipment breaks.
 - c. IMLC Cadre will need access to an office printer, copier, and scanner for any necessary class material.
 - d. LNO's will be required to print out all necessary Forms Books and Team Drills prior to the Cadre's arrival. This material will be sent via email at T-15.

9. **Transportation:** The host unit is responsible for meeting all transportation needs for the MTT Package.
 - a. The host unit will provide funds for Cadre travel to and from the MTT location. Cadre will travel by commercial air if outside of a 350 mile radius from FBGA.
 - i. Cadre will travel by rental vehicle if the supported unit is within driving distance (350mi) of FBGA. Large SUV's are required for this mode of transport due to the amount of personnel and equipment that will be brought to training.
 - b. The host unit will need to provide one 12-pax van for use during the LFX; coordinated through/by the LNO.
 - c. The host unit will need to provide one LMTV/FMTV, or TMP equivalent vehicle, with driver, to transport students and equipment to and from course events; coordinated through/by the LNO.
 - d. It is the LNOs responsibility to ensure all vehicles are properly dispatched, meets all local, state, and federal safety requirements, and has all necessary equipment be in compliance with the supported unit's SOP.
 - i. Vehicles and drivers should be dedicated for the duration of the course so there is no ambiguity in their mission.
 - e. The host unit is responsible for providing medical support/vehicles as required by local policies and procedures; coordinated through/by the LNO.

10. **Billeting:** Cadre will stay at either an on-post, preferred, or off-post hotel. The host unit is required to cover this expense.

11. **Dining Facilities:** The students/units will be responsible for all meals. Every effort will be made to accommodate the students eating in the DFAC, but the training schedule will not always coincide with DFAC hours.

12. **Weapons:** IMLC will not provide any weapons for students. Weapons required for each course are listed in See Annex C-Supply List.

13. Ammunition:

- a. Each student will have a minimum of 4 rounds of mortar ammunition for each LFX. (120mm, 81mm, 60mm HE; 81mm ILLUM).
- b. The hosting unit is responsible for the coordination of ammunition and responsible to provide an ammunition NCO to handle all ammunition issues. Far-Range Training Rounds (FRTR), White/Red Phosphorus, and Infrared Illumination will not for the required ammunition listed in the IMLC POI. Only conventional ammunition will be used during the course.

14. **Armsroom:** The requesting unit will need to provide adequate space in a centralized armsroom for all weapon systems; coordinated through/by the LNO.

15. **Classroom:** A single "XXI Century Classroom" is needed to seat 32 students for the duration of the course; coordinated through/by the LNO.

- a. The classroom must be a securable facility that the Cadres have unrestricted access to in order to store their equipment and facilitate instruction.

16. Ranges and Land:

- a. The host unit LNO will coordinate a mortar range through the local range control agency. This range will need to be able to accommodate all types of mortars systems currently used in the US Army inventory.
- b. The host unit, coordinated through/by the LNO, will provide the RSO, OIC, RS, medical support, ammunition handler, range detail, communication support and road guards.

17. **Procedures for Identifying Soldiers at Risk and Dismissal:** The performance measures and expectations for the course are explained clearly to Soldiers on day one during in-processing, as are individual student responsibilities and cadre responsibilities. Soldier expectations and responsibilities are reiterated throughout the course by cadre and further emphasized before each major event (graduation requirements), and provide a unifying focus for event AARs. Criteria for identifying a student at risk due to failure to achieve course expectations generally fall into three categories:

- a. Apathy: Repeated failure to conduct themselves in a professional manner during the course, malingering, avoiding responsibility, lack of support to team, deliberate failure to follow instructions of designated student leaders, failure to respond to corrective measures counseled by cadre. Behavior continues unchanged after formal counseling.
- b. Indiscipline: Repeated failure to do what the student knows must be done.

Clear evidence that student has knowledge, but willfully or through culpable neglect fails to fulfill personal responsibilities – failure to follow instructions, failure to complete individual work, failure to maintain tactical discipline, failure to take corrective measures identified by cadre. Behaviors continue after formal counseling.

c. Academic Failure: Leaders must pass all written exams with a minimum of 70% for written assessments and a GO in all performance assessments. If a leader fails to meet the required 70% or GO during the written or performance assessment, that leader will receive a test failure counseling outlining requirements for retraining and retesting. Should a leader fail to achieve a 70% on the written retest or a GO on performance assessment, that leader will then be counseled and an academic drop packet will be initiated by the Master Trainer.

d. If a student is unable to complete the course due to personal issues he will be non academically removed from the course and allowed to return at his earliest convenience.

e. If a student is unable to successfully pass any required examination they will be allowed one (1) retest. If he is unable to pass this retest he will be recommended drop from the course. This will be recorded as an academic drop from the course and the student will not be allowed to return for 90 days and at the discretion of the unit. If the student is removed from the course due to disciplinary issues, he will be barred from attending IMLC for 6 months and will require a memorandum from the first LTC in his chain of command endorsing the Soldiers attendance. If there is a second disciplinary issue the student will be removed from the course and barred from attending any future IMLC classes.

f. Soldiers may be denied admittance or reenrollment to the course if the chain of command feels that continued training of the Soldier will not be in the best interest of the U.S. Army.

18. All requirements listed above must be met by the host unit to conduct a successful MTT. Failure to meet these conditions may result in a cancellation of the scheduled MTT or training that does not meet USAIS guidelines for the conduct of an Infantry Mortar Leaders Course.

19. The Point of Contact for this memorandum is, NCOIC Infantry Mortar Leader Course at (706)626-4731/4733 or at usarmy.benning.mcoe.list.2-29-in-regt-impl-course@mail.mil and you will receive a signed memorandum of instruction.

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Package Requirements for FY16

//ORIGINAL SIGNED//
Company Commander
CPT, IN
Commanding

//ORIGINAL SIGNED//
Battalion Commander
LTC, IN
Commanding