

SUBJECT: Division Proofing Team Training Outline

References: FM 17-12-1-1/2, TM 9-2350-255-10-1/2, Master Gunner Booklet

1. The proofing team assists the Master Gunner in training and supervising individual tank crews at company/troop level. The team helps the tank commanders perform maintenance checks, fire control calibration, and with troubleshooting procedures.
2. The commander and master gunner must select the most technically competent tank commanders and gunners to act as the proofing team. At home station, the proofing team trains the tank crews, as required (or directed by the commander). The proofing team must be on hand to help crews prepare for and conduct the screening test. The team also assists the crew in firing the screening test, if necessary. Success of the screening test depends on the team and crew members eliminating mechanical faults and crew errors before firing the first rounds of the test. The team inspects tanks that fail the test for mechanical or crew procedural errors that might have caused a test failure. (When available, direct support contact teams should also participate.) Throughout the remainder of the gunnery density, the proofing team provides assistance, as required.
3. The Live Fire Accuracy Screening Test (LFAST) ensures tanks can fire accurately using the fleet zero, Computer Correction Factors (CCF) method of calibration; a screening test is conducted at the start of every live-fire training cycle.

In the past, many fire control mechanical errors were not detected, or were allowed to go uncorrected, because crews thought zeroing would compensate for mechanical problems. Zeroing will never make mechanical problems go away, nor will zeroing make a defective tank shoot properly under all conditions. The only effective correction is to identify the mechanical problem and fix it. If a tank fails either the sabot or HEAT portion of the screening test, the proofing team inspects it. If a correctable mechanical problem or procedural error is found, it is corrected and the crew boresights the tank, with supervision of the proofing team. Then the tank crew re-fires the portion of the screening test the tank failed. If the tank passes the screening test the crew and tank

proceed with training. If the tank is sent to direct support maintenance or a line replacement unit is changed, the tank crew must re-boresight the tank and fire another screening test (when the faults are corrected) using the fleet CCF, or the tank-discrete CCF if one has been established, with supervision from the proofing team. The next step is to zero the coax and boresight the M2HB in accordance with the operator's manual.

4. Troubleshooting - Maintenance instructions are outlined in chapter three of the operator's manual. They are organized into two sections; troubleshooting and maintenance procedures. The proofing team must have extensive knowledge of maintenance procedures

5. Proofing Team Member Criteria:

- a. Tank commander or gunner
- b. Technically competent
- c. NCO
- d. Tank
- e. Tank Crew Evaluator qualified
- f. Available for additional team training
- g. Personnel selected at CO/TRP level must be cleared by the bn/sqdn master gunner

6. Company/Troop Responsibilities:

- a. The CO/TRP commanders and master gunners will select and maintain a proofing team of at least two crewmen per platoon at all times.
- b. Notify the bn/sqdn master gunner of the soldiers selected and update their status monthly.

7. Battalion/Squadron Master Gunner (MG) Responsibilities:

- a. Manages this program.
- b. Explains this program to company/troop commanders.
- c. Trains the teams (with the CO/TRP MG, if assigned)
- d. Ensures that all instruction is taught by a qualified M1 MG
- e. Schedules and resources all needed training

- f. Reports the status of their teams, by platoon, monthly to the division master gunner.
8. The following subjects will be taught to the teams:
- a. Collimation Checks of the Muzzle Boresight Device
 - b. Preventive Maintenance Checks and Services
 - c. Fire Control System Calibration
 - (1) Prepare-to-Fire Checks
 - (2) Muzzle Boresight Procedures
 - (3) Armament Accuracy Checks
 - (4) Gunner's Quadrant End-For-End Check
 - d. Boresight Loss
 - e. Boresight Check
 - f. Muzzle Reference Sensor Confirmation
 - g. Screening Procedures
 - h. Screening Test Failures
 - i. Tank Discrete Computer Correction Factors
 - j. Live Fire Accuracy Screening Test Failure Data
 - k. TCGST Tasks, to include Remove and Install the M68E1 Breech Block
 - l. Detailed Disassembly and Assembly of the M2HB
 - m. Malfunctions and Corrective Actions of the M2HB
 - n. Detailed Disassembly and Assembly of the M240
 - o. Malfunctions and Corrective Actions of the M240
 - p. Ammunition and Target Destruction
 - q. Direct Fire
 - r. Boresighting and Zeroing Tank Mounted Machine Guns
 - s. Employing Tank Mounted Machine Guns
 - t. Tank Gunnery Tables (I through VIII)
 - u. Target Acquisition
 - v. Functional Capabilities of the Fire Control System
 - w. Gunner's Auxiliary Sight Stadia Reticule
 - x. Manually Indexing Range

y. Manually Applying Range Using the Gunner's Auxiliary Sight

9. Bn/sqdn master gunners will submit their proofing team training schedule to the division master gunner by June 1, 1999. This training will be conducted as a unit school.

The following information will be needed:

- a. Memorandum requesting a unit school
 - (1) Number of soldiers attending the class
 - (2) Number of man-days for the class
 - (3) POIs for classes to be taught
- b. Team member certification will consist of passing the Division Proofing Team Test.

Each team member is also required to re-certify each year.

10. If assistance is needed, such as master gunner support, request the help with as much advance notice as possible. Submit any questions concerning this program to the undersigned.

Richard C. Hamp
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