
threat, the firing batteries need engineer assets to build fire bases. The main threats to the batteries and radar are ground attacks, mortars, ambushes, mines, and snipers. Given a bulldozer operator and a small emplacement excavator for eight to 12 hours, a battery should be able to dig itself in.

Holding targeting meetings at brigade and battalion ensures the linkage of the commander's intent, intelligence assets, the assault force, and damage assessment elements to evaluate the results of delivered fires. Targeting meetings

must be held to ensure that the available intelligence assets are used properly and are focused on the commander's priorities.

Fire supporters must participate in rehearsals. FSOs and mortarmen should brief along with their commanders so that fires can be integrated with the maneuver plan at the right place and time.

The mission of fire supporters is to synchronize and execute indirect fires to meet the combined arms commander's guidance for fire support. The realistic

training at the JRTC prepares a commander to deploy anywhere in the world and accomplish his mission knowing that his indirect fire capability greatly increases his unit's lethality and his ability to protect the force.

Lieutenant Colonel Bruce A. Brant, a Field Artillery officer, is senior fire support observer-controller at the JRTC. He previously commanded the 1st Battalion, 319th Airborne Field Artillery, 82d Airborne Division, and served as S-3, 25th Infantry Division Artillery. He is a 1973 ROTC graduate of Texas A&M University.

The TOW Master Gunner Course

STAFF SERGEANT ANTHONY J. PETRONE

In response to the Infantry School's TOW Accuracy Study, some changes have been made in the way the School trains TOW crews. Many improvements have been incorporated into the training conducted at Fort Benning and at unit level.

The old TOW Leader Course, which trained both officers and noncommissioned officers (NCOs), has been replaced by two separate courses: The two-week TOW Platoon Leader Course teaches the basic technical and tactical skills to officers, and the four-week TOW Master Gunner Course teaches advanced technical skills and training management to experienced, MOS-qualified NCOs.

The TOW Master Gunner Course is now the Army's only formal program of instruction for NCOs in MOSs 11H and 19D on the advanced technical aspects of the TOW and related equipment. Its purpose is to train these selected NCOs on advanced TOW gunnery, planning and implementing gunnery training, advanced training management, sec-

ondary weapons, TOW system and carrier maintenance, and all related training devices.

Unlike the old course, this one does not include instruction on Skill Level 1 tasks. Commanders must certify that NCOs reporting for the course have passed the Gunner Skill Test (score of at least 70 percent), in accordance with Field Manual (FM) 23-34, *TOW Weapon System* (on either the M901 improved TOW vehicle, or the M966 HMMWV—high-mobility multipurpose wheeled vehicle). This certification (in memorandum form) must accompany the NCOs to the course. In addition, each student takes the test again during the first two days of the course and must pass it or be returned to his unit.

Commanders should select only highly motivated and proficient NCOs to attend the course and make sure they meet all the prerequisites. The course is open to those in the ranks of sergeant (promotable) through platoon sergeant and in MOSs 11H or 19D, Active Army, Army National Guard, or Army

Reserve. They must be graduates of the Basic NCO Course and have Secret clearances and their commanders' recommendations.

The TOW Master Gunner Course is designed to be tough. A student must receive a "GO" on all performance-oriented tests and 90 percent on all written examinations. The four-week course includes 214.5 hours of instruction, consisting of the following topics:

- Advanced training management.
- TOW weapon system maintenance.
- Vehicle maintenance.
- TOW missile family.
- MILES (multiple-integrated laser engagement system) operations.
- TOW Gunnery Trainer.
- Combat vehicle identification and fratricide prevention.
- TOW gunnery tables.
- TOW Field Tactical Trainer (TFTT).
- Conduct of a TOW live fire.
- Secondary weapon systems.
- Zeroing machineguns (live fire).
- TOW strategy.

TRAINING NOTES

- HMMWV interchangeable mount system (HIMS).

Upon graduation from the course, each student is awarded the new additional skill identifier (ASI) of S1, indicating a TOW Master Gunner.

Commanders should make every effort to ensure that only their best-qualified NCOs are sent to Fort Benning to undergo this important training. Several areas have proved difficult for students:

Training Management. Student must understand and apply a vast amount of information from FMs 25-100 and 25-101 that will enable them to prepare and design training plans for their antiarmor units. These NCOs must also prepare a training briefing and complete a training plan, including a quarterly gunnery exercise using the TOW tables outlined in FM 23-34. It is a good idea for them to read these manuals before attending the course.

Secondary Weapon Systems. Students must become proficient in the functioning, maintenance, and zeroing of various secondary weapons—the MK19, M60 machinegun, .50 caliber machinegun, and M249 machinegun—which are being used more often in light infantry TOW units. They must pass a hands-on performance test on these weapons as well as a written test.

Combat Vehicle Identification. Students are given a detailed class on armor threat and the causes and prevention of fratricide. To pass the course, students must identify 36 out of 40 vehicles by nomenclature. They will find the test easier if they have read FM 1-402, *Aviator's Recognition Manual*, and studied Graphic Training Aid (GTA) 17-2-13, *Armored Vehicle Recognition*, before attending the course.

TOW Gunnery. Many units are unfamiliar with the new standards and the techniques that are needed to run the TOW gunnery tables in FM 23-34. TOW master gunner students learn how the various tables are to be set up and conducted, on the basis of their units' resources. TOW Tables 1 through 12 are taught so that each master gunner can resource, set up, and operate an effective gunnery program for his unit. This train-



The TOW missile is a mainstay of the U.S. Army's antitank inventory, and hence is to be found with U.S. units around the world. Here, the missile is fired from an Improved TOW Vehicle (ITV) of the U.S. 1st Armored Division, in Germany.

ing will improve the skills of individual gunners as well as their squads, sections, and platoons.

TOW Field Tactical Trainer (TFFT). Students learn how to set up, operate, and maintain the TFFT and how to use it to conduct the new gunnery tables. Training on the TFFT is more realistic than on the old M-70 trainer.

MILES. Because of the extensive use of MILES equipment, NCOs must become expert in its use. Too often, its improper use results in unrealistic training. Students in the course are taught how to install, operate, maintain, and troubleshoot the TOW weapon system MILES and the TOW vehicle MILES.

TOW Missile Family. The course gives students a better understanding of the internal functions of the missile and the weapon system. They receive instruction on the missile marking system and on the complete family of TOW missiles and their selection priority for engaging targets.

It is important that commanders select for the course only the students who will use this training to improve their profes-

sional knowledge and to contribute to the antiarmor unit's training effectiveness and combat readiness. It is best to send soldiers who are in leadership positions and who have retainability within the unit.

Commanders and trainers who would like more information about the course itself are encouraged to write to Commandant, U.S. Army Infantry School, ATTN: Company B, 2d Battalion, 29th Infantry, Fort Benning, GA 31905-5595; or call DSN 784-6796 or commercial (706) 544-6796.

The TOW Master Gunner Course gives antiarmor leaders the technical knowledge they need to supervise, access, and develop an aggressive training plan for an antiarmor company or platoon. There should be no doubt that a TOW Master Gunner will be a great asset to his unit or any such unit to which he may be assigned in the future.

Staff Sergeant Anthony J. Petrone is an instructor in the TOW Master Gunner and TOW Platoon Leader Courses. He was previously a platoon sergeant in the 2d Battalion, 18th Infantry, 24th Infantry Division, and a TOW squad and section leader in the 3d Infantry Division.
