

DIALOGUE FILMS		
(Available on order from TASC)		
82-1	Transition Mixes -- M1/M113, M2/M60	Released Feb 82.
82-2	Bradley Infantry Fighting Vehicle Training Strategy	Released Jul 82.
82-3	The Bradley/Abrams Tank Force	Released Sep 82.
83-1	The Bradley Infantry Fighting Vehicle Platoon and Squad	Released Apr 83.
83-3	Heavy/Light Concept	Released Mar 84.

the National Training Center.

In addition, the Mechanized Infantry Platoon/Squad, BIFV (FM 7-7J); Battalion and Brigade Command and Control Techniques (FC 71-6); and The Division 86 Battalion Task Force SOP (FC 71-2) are in their final stages of development prior to publication.

Field Circulars (FC) are currently being prepared for the new light infantry division. These publications will provide light infantry soldiers and leaders with the doctrinal know-how to fight, train, and evaluate. Each circular includes the ARTEP Mission Training Plan (AMTP) and emphasizes the divisional units' unique differences in organization, equipment, and capabilities.

Periodically, CATD receives in-

quiries about its publication process. Doctrinal manuals are initially produced in a preliminary draft format after an outline has been internally developed, staffed, and approved. A coordinating draft is then published and sent to the field for additional review and comment.

CATD regards this field review as one of the most important steps in developing a good manual and depends on a thorough and professional review to make sure its manuals are realistic and complete. The comments from the field are then incorporated into the final draft text process.

The current status of the publications for which CATD has proponentcy is shown on the accompanying chart.

(It should be noted that FMs are normally received through pinpoint distribution channels. FCs are distributed on a one-time selected-distribution basis, and MACOMs are authorized to reproduce the circulars as needed.)

The Infantry School stresses the importance of input from the field in the development of its doctrinal and training publications. Questions or comments on a specific doctrinal manual or field circular should be sent on a DD Form 2028 to Commandant, U.S. Army Infantry School, ATTN: ATSH-I-V-PM, Fort Benning, GA 31905; AUTOVON 835-1653/1210.

Major Bruce D. Mackey is assigned to the Doctrinal Literature Division of the Combined Arms and Tactics Department of the Infantry School

Logical Antiarmor Training

CAPTAIN JAMES LENIHAN

It seems like everyone has an opinion on how to conduct good antiarmor training for Dragon and TOW gunners and crews. For the most part our leaders have been successful in converting the emphasis on tracking to an emphasis on crew and gunner task performance. As a result, we have increased the proficiency and the basic task performance of our crews and

gunners, although one problem continues to plague our leaders — how to train antiarmor gunners to track not only accurately but confidently. In spite of the obvious differences between the TOW and the Dragon, gunners for both systems suffer from the same frustration and loss of confidence when they cannot track a target effectively, and both can be helped by

a logical tracking program.

The Launch Effects Trainer (LET) for the Dragon and the M70 TOW Trainer are not the most effective ways to train gunners, although they can and should be used as an integral part of an antiarmor tracking program. Anyone who has ever had a chance to use these devices to track realizes the difficulties involved and

the ensuing frustration. Almost as important is the fact that these systems limit the use of our most valuable training assets — our noncommissioned officers. Both devices do give an NCO supervisor a score or a read-out, but unless he has an extensive background in TOW training, a supervisor cannot “read” gunner errors or correct mistakes that he cannot see.

START AT BEGINNING

For a gunner, keeping the crosshairs on a target is the most difficult thing he has to do. Yet that is the first thing we force him to do when we use the M70 or the LET to train him. This is almost like trying to teach basic rifle marksmanship using only 300-meter targets. We need to start the gunner at the beginning, instead, and let him work his way up. Therefore, a program for antiarmor gunners should be broken down into three phases — initial, intermediate, and advanced.

During the initial training phase, a gunner should be required to track a tactical vehicle that is moving cross country at a relatively short range (300 to 400 meters). Through the use of the Sony Rover TV Trainer (TVT), an NCO supervisor can monitor the gunner's tracking performance. (Sony Rovers can be ordered through Training Aids Support Centers using unit funds or hand-receipted from TASCs that carry them. Change 3 to FM 23-23 provides information on how to set up and use the equipment and gives the NSNs for the mounting brackets for the TOW and the Dragon.) By collimating the day-sight tracker with the Sony camera (using the field expedient method also found in Change 3) and by drawing crosshairs on the monitor to match the gunner's sight picture, an NCO can see the same picture the gunner sees. (See also “Training TOW Gunners,” by Major Michael V. Harper and Major Patrick H. Orell, *INFANTRY*, January-February 1979, pages 12-14.)

By watching the monitor, the NCO can make corrections about the target's center of mass, the gunner's breathing, and the tracking rate. In

addition, the gunner can have his exercise played back to him so he can see his mistakes, hear his supervisor's guidance, and see his own subsequent corrections. This method also positively reinforces teaching procedures. The gunner can stand back and observe his proper sight picture and his tracking efforts.

Once a gunner has demonstrated his proficiency at this initial training level, he should move on to the intermediate level. An intermediate tracking exercise should include a moving target at an intermediate range (400 to 600 meters for the Dragon, 1,000 to 1,500 meters for the TOW); frontal, flank, and oblique shots when the terrain permits; and the use of evasive target vehicles to improve the gunner's tracking ability.

It should be noted here that while there is some loss of continuity between the day-sight tracker and the Sony Rover at the intermediate ranges, the target on the monitor is smaller because the Sony camera operates at less than 13 power. The gunner's performance can still be evaluated with reasonable accuracy, however, if a supervisor will spend a little time familiarizing himself with these differences.

A significant amount of time should be spent in this second phase, because it allows gunners to hone their tracking skills. Wherever the terrain permits it, gunners should also be trained to track targets at the maximum range of their weapons using M64 and M880 launch simulators — but only after they have demonstrated complete competence in tracking at the shorter ranges.

The tracking exercises of the advanced phase should be designed to train gunners in gunnery skills. Beginning back at the short ranges, and again using the Sony Rover TVT, the gunners should be taught to track a “spot on the vehicle.” This requires three things from both the gunner and his supervisor: vehicle identification (friend or foe and what type); knowledge of the vulnerable spots on the vehicle; and tracking discipline.

In a training scenario, for example,

an NCO supervisor might tell a gunner what type of vehicle he is engaging. The gunner would then have to identify the vehicle's vulnerable areas and track one of these “hot spots.” The supervisor could monitor the soldier's tracking by watching the screen and making appropriate corrections. (This is a difficult task. But gunners and crews who can identify enemy vehicles, locate their vulnerable spots, and track those spots are virtually guaranteed first round hits, as long as they are using functional equipment.) The gunner's tracking performance can then be empirically evaluated using the LET or M70 trainers, although these are only methods of *assessing* advanced gunner skills. In other words, they should be used in conjunction with other training, not instead of it.

MILES

The Multiple Integrated Laser Engagement System (MILES) is another exceptional tool that can be used to assess the performance of gunners and crews. It can determine the crew's ability to react differently when under fire as well as assess the use of cover and concealment. But it should not be used in training or in assessing tracking.

It should be mentioned, too, that the Sony Rover is compatible with the M901 Improved TOW Vehicle (ITV). In fact, the Weapons, Gunnery, and Maintenance Department of the Infantry School has incorporated the Sony Rover into the program of instruction of its ITV trainer course.

While there is no guaranteed way to produce accurate gunners, a logical, sequential tracking program for TOW and Dragon gunners will increase the proficiency of gunners and crews and actually speed up a unit's training time.

Captain James Lenihan served as an antiarmor trainer at Fort Hood and as chief of the antiarmor/missile division of the Weapons, Gunnery, and Maintenance Department of the Infantry School. He is presently assigned to the 197th Infantry Brigade.
