

fires at long-range targets; and mechanized squads can direct .50 caliber machinegun fires at appropriate targets. Dragon engagements also add exciting possibilities, and 90mm antipersonnel rounds can be used to supplement the HEAT rounds.

Trainers can also further develop the NBC scenario suggested in the ARTEP by placing CS powder in the smoke pots and in the demolition pits. At the same time, they can place Soviet contamination markers near the assembly area to signal the NBC threat, thereby testing a squad's ability to recognize and respond to the warning signs. They can also simulate NBC casualties and conduct

the entire exercise under MOPP-4 conditions.

Other minor variations can be used for units that have special needs. For example, a Ranger unit might increase the weight of each man's rucksack by adding a basic load of ammunition and by raising the ARTEP standard for hits; an airborne unit might begin its exercise by jumping into the area.

Finally, the basic ARTEP event and all of its variations might also be conducted at night. Such a night exercise would give the squads an opportunity to train with night vision devices, using limited visibility firing techniques and battlefield illumination by company mortars, hand

flares, searchlights, and infrared light sources.

The need for squad proficiency is unquestioned, and the squad forced march/live fire range has limitless potential for squad training. In a single exercise, a squad can be trained in the most difficult aspects of squad operations. The range, along with these suggested modifications, deserves the trainers' attention.

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# Indoor TOW Training

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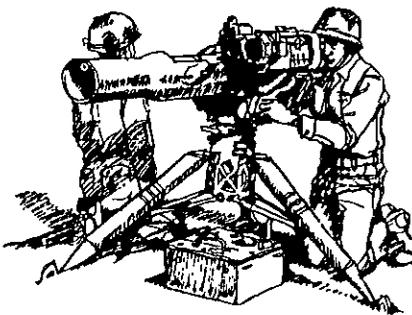
Often in trying to carry out a TOW training schedule, an instructor will find that elements beyond his control can destroy his most carefully laid plans. For example, a snowstorm can wipe out his target acquisition classes, or rain can interfere with his target board tracking. Sometimes he has only a limited amount of time or space for his training.

In any unit, the loss of a training day is bad news. To a Reserve or National Guard unit, it can be a catastrophe. The solution, therefore, is to move some of the outdoor TOW training inside.

This is not as difficult as it sounds. All it takes is some imagination, for the materials needed are cheap and easy to obtain. Such commonplace things as a G.I. blanket, a flashlight,

a stack of old magazines, and some index cards are the basic ingredients.

The blanket, with some books or wooden blocks placed under it, can



be used as a sandtable or a terrain board for a class on preparing range cards. Roads can be made from toilet tissue, and small plastic houses and

trees can be added to supply landmarks and reference points.

The instructor needs only to give the TOW crewmen magnetic north, an idea of the distances involved, and their own location on the board. Then, by using two different gun positions, the crewmen can become more aware of a TOW section's deployment and of the importance of interlocking and support fires.

Each soldier should then be required to explain what he placed on his range card and why. This process, and the instructor's critique, should lead each soldier to a better understanding of the intricacies of range card construction.

The different scale models of modern military vehicles that are usually available to a unit can be used

on the blanket terrain board. These vehicles, viewed through the TOW daysight tracker, can provide a useful tool for determining target engageability and also for reinforcing vehicle identification training.

With the books or blocks, the blanket can be molded to any shape and the models can then be placed in any number of positions or in any desired combinations to represent good and bad attack possibilities.

Where indoor space limitations preclude the use of a TOW system, some training can still be conducted. The instructor can darken the room, sweep the terrain board with a flashlight, and have the soldiers point out engageable targets and identify vehicles as "friend or foe."

Vehicle recognition training can always be conducted indoors, of course, but it can be made more effective. All too often, tank identification training consists of passing out a few decks of "Tank I.D." cards and putting some posters of Threat vehicles up on the walls in the arms

room. Although these cards provide a good starting point, their use becomes stale quickly, usually because of the sterility of their presentation.

But a section sergeant can correct this problem by making his own set of cards from pictures that he finds in various publications, such as old (and new) national news magazines or military journals. Such magazines sometimes contain full color pictures of NATO and Warsaw Pact armor in various "poses" — three-quarter view, half hidden by dust or smoke, or in multiple groupings. In addition, these vehicles often show their national markings.

Another valuable source of pictures is the catalogs put out by the companies that make the plastic vehicle models. Easily obtained from any hobby store, these catalogs are packed with full-color shots of T-62s, Chieftains, Leopards, and M-60s.

By cutting out a variety of pictures and taping them to index cards, the instructor can create a collection of cards that will challenge the soldiers

to use all their knowledge of vehicles to identify them. At the same time, the soldiers will receive a much more realistic picture of the vehicles they are studying.

These are just three of the ways in which realism can be added to indoor training. No doubt, there are many others that trainers themselves can devise. These suggestions are not intended to replace outdoor training but to present some alternate ways of conducting more realistic indoor classes when time or weather interfere with the training schedule. Once the initial effort has been made to gather the materials needed, these methods can be used again and again. More important, they can be set up and readied for use at any time with little advance notice.

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# CALFEX Range Safety

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Commanders and other training managers will benefit more from combined arms live fire exercises (CALFEX) if they consider range safety as an integral part of their training. Some of these firing exercises fail, even though months of planning have gone into them, because the training managers did not pay enough attention, or did not pay attention early enough, to range

safety. Training managers, therefore, must familiarize themselves with Army and local range safety regulations and take these into consideration from the beginning of their operational training.

Army Regulation 385-63, which is the final authority on firing safety, is an indispensable tool for CALFEX planners. It mandates precautions and restrictions that are intended to

reduce the risk of property damage and personnel injury, and it also gives training managers a foundation in the technical aspects of range safety.

One of the technical skills managers learn from the regulation is how to construct a safety diagram for a surface danger zone. This device enables them to identify any restrictions that might limit the weapon systems they can employ in a