

the volume needed.

Once the concept of employment has been developed, the next task is to convey this information to the platoon leader in a form that quickly and graphically describes his mission. A matrix is a good technique. The example of a mortar execution matrix shown here represents the minimum detail a battalion commander owes the mortar platoon leader.

The entries across the top of the matrix are the following:

- **Position Area.** An entry under this column means it is the general area the mortars are expected to occupy. The positions are identified by sequential numbers and preceded by either a P, for movement by platoon, or an S, for displacement and occupation by section.

Position 1 in this example is followed by an N to indicate that a night movement and occupation is required. The staff has made certain that use of the terrain has been coordinated and that the mortars will be able to reach the assigned targets from these positions.

- **Lazy Azimuth.** The azimuth is measured from the center of the position area to the center of the area in which mortar coverage is required. This becomes increasingly important when working in non-linear tactical situations or with carrier mounted mortars that have traverse limitations.

- **Priority of Fires (POF).** No change from current doctrine.

- **Priority Targets.** The matrix not only identifies the priority targets that correspond with the task force's forward movement but also indicates the number of volleys that will be required to achieve the desired effect. The letters P or S indicate whether platoon or section volleys are desired, and the number that follows indicates the minimum number of volleys. A review of the total number of volleys provides the basis for initial ammunition resupply considerations.

- **Purpose/Remarks.** A statement of purpose is entered in this column so that the platoon leader can better understand his platoon's role in the coming battle and

how his unit is expected to support the commander's intent. Given this information, he can better anticipate the requirements generated by enemy action or by a changing tactical situation.

Admittedly, this approach to mortar fire planning can be said to contradict current doctrine. Some will say that the mortar platoon must be given the entire indirect fire target list and be prepared to fire any or all of those targets. In theory, it is hard to disagree with this view. But this approach sets an unrealistic goal for the mortar platoon to reach and gives the mortar platoon leader a mission he cannot possibly complete. When any system fails as often as our current system (as it is practiced), it is time for a change.

Colonel Robert D. Sander, a Field Artillery officer, is a senior advisor with the 89th Army Reserve Command in Kansas. He previously served in the Combined Arms and Tactics Department of the Infantry School and commanded a Field Artillery battalion in the 1st Infantry Division. As an aviator, he served with the 101st Airborne Division in Vietnam.

Heavy Mortars

New Thoughts on Tactical Employment

LIEUTENANT CHRISTOPHER J. L. ALLEN

The Army's doctrine and methods for employing mechanized infantry have changed radically in the past five years. The introduction of the M1A1 main battle tank and the M2 Bradley fighting vehicle has contributed to the intensity of mechanized warfare. In addition, at the National Training Center (NTC) at Fort Irwin, California, inventive commanders are now pushing their mechanized forces toward deeper and swifter offenses and defenses. The heavy mortar platoons in

these units must either adapt to the changes or be relegated to the role of a garrison detail force.

Most mortar platoons are underused and neglected, as numerous rotations to the National Training Center have painfully illustrated. This state of affairs has resulted partly from too much adherence to the doctrine in Field Manual 7-90, Tactical Employment of Mortars, and partly from too few commanders who are willing to "waste time" ensuring that

their organic fire support assets are employed effectively.

In some offensive operations, heavy mortar platoons receive few if any calls for fire. In defensive operations, they usually go through the motions of setting up but chiefly to appease an evaluator. Commanders, all too often, seem to expect to receive reports during after action reviews on the way the mortar platoon "messed up."

In light of all this, I believe that some

new thoughts on the tactical employment of heavy mortars are long overdue and offer here some of my own.

The deep attack has become a favorite of battalion and brigade commanders in recent years. By assaulting for distances of up to 20 kilometers, these units can quickly outdistance the 6,840-meter range of the M329A2 107mm round, as well as the mortar sections' ability to maintain continuous and effective fire support. Unfortunately, some mortar platoons are not permitted to operate in split sections, and the intricate fire missions with which they are tasked inevitably force them to fall behind the task force's attack.

Battalion commanders and their fire support officers give little thought to incorporating their mortar platoons into the scheme of maneuver, other than to keep them "out of the way."

There are some simple solutions to these problems. For example, most task forces, when on the offense, currently send a lead element of at least company strength forward with the main body usually following on the same or an alternate route. During this phase, because of the scope and depth of the modern battlefield, heavy mortar platoons should always operate in split sections for tactical effectiveness. To maintain continuous fire support, these mortar sections must be allowed to function as independent tactical formations, although they must always coordinate closely with each other.

Each section should follow closely behind a line company. This does not mean that the mating of a mortar section to a line company will necessarily result in support for that company. It does mean that the company is expected to clear the way and provide security for the mortar section. One mortar section should therefore be mated with the lead or "jump-off" element, while the second section is mated to the main body. This deployment allows the mortar platoon to advance at the forward edge of the battle area (FEBA) and provide continuous fire support beyond the line of departure (LD) deep into enemy territory. If one section should fall slightly behind, it can easily accompany later elements of the main body.



Heavy mortars are too important to be neglected in training exercises.

Although there is a continuing threat of counterbattery fire, each mortar section must make only brief stops and do its best to keep up with the attack. The heavy mortar platoon has tactical superiority because it can provide fire support more rapidly than cumbersome field artillery units. (It can fire a fast suppression "hip shot" in three minutes.) To use this ability to the best advantage, commanders should direct their mortar units to fire suppression or smoke rounds on the offense. The heavy mortar platoon, for instance, is uniquely qualified to deliver a lot of smoke quickly, and smoke is now being used extensively during NTC exercises.

The heavy mortar platoon must pay constant attention to its forward movement. During a fast-paced offensive action, the "hip shot" must become the unit's tactical mainstay, with the field artillery handling the preparatory fires.

By constantly moving forward and firing "hip shots," the mortar platoon can keep up with any task force and can provide continuous fire support to that force. The sections need to keep in constant contact so they can coordinate their movements and pick up missions one or the other section cannot handle. During lulls between fire missions, the sections should move forward simultaneously. Either section can stop if a sudden fire mission is called.

Beyond the LD, the formal forward displacement plan is dead. The mortar sections must still be provided a route forward but they must be flexible and ingenious in their operations. As line units deviate from their routes, as they often will, so must the heavy mortar sections to take advantage of the security the line units provide.

In the defense, the heavy mortar platoon must also be permitted to operate in split sections, with the sections placed to support the two infantry teams of the traditional task force. Again, the teams provide forward security for the mortar sections, while the sections provide final protective fires and obstacle coverage for the teams. With heavy mortars in direct support, the infantry teams gain considerably more firepower.

Commanders must also be flexible and permit a mortar section to fire the missions of any company, so long as these do not interfere with its primary defensive mission.

Heavy mortar teams should confine their fire missions to lightly armed vehicles and infantry, against which mortar fire has the greatest effect. Although mortars can also be fired to suppress advancing tanks, they will not cause much damage. In any case, the amount of ammunition available will undoubtedly dictate target priorities.

Commanders can use mortar smoke to

screen defensive redeployments. Quick smoke of longer durations is most effective in the defense, and this use of mortars has been neglected.

In the defense, too, a more traditional rearward mortar displacement plan is possible. Firing points can be selected and the details calculated ahead of time, but flexibility must still be paramount. While moving to cover the task force, the mortar sections must be prepared to fire hip shots as they move toward the rear.

The possibility that the task force will launch a counterattack also calls for forward-reaching mortar fire. The same precepts used in the offense are therefore applicable in the defense for covering such a move.

Commanders need to be willing to integrate heavy mortars into their fire support plans and to communicate the plans to their field artillery fire support officers (FSOs). Few in the artillery community understand mortars and their comparative effectiveness in terms of time. Mortars are both powerful and fast.

Artillery forward observers (FOs) and company FSOs prefer to use the 155mm and 207mm howitzers, which they believe will give the greatest effect. Experience at the NTC has shown, though, that few artillery battalions can deliver fire on

targets in less than 15 minutes from a call for fire, and this is often too late to do much good.

Close cooperation between the battalion FSO and the mortar platoon leader can solve this problem if the commander is supportive. Once the FSO realizes what a strong asset the heavy mortar platoon is, he can assign it missions that require an immediate response. A company FSO must also be convinced of the 107mm mortar's effectiveness.

The mortar platoon leader should actively participate in the battalion FSO's fire support rehearsals so that his unit's role can be discussed and integrated into the overall plan. Once the battalion fire support team and the mortar platoon have worked together several times, the mortars will never lack for missions.

It is also imperative that each mortar section be able to monitor the battalion command net. The information available on this net enables each section to make critical decisions regarding its movement and the urgency of its assigned missions. Again, constant contact between sections is essential.

Our current doctrine states that the mortar platoon leader will succeed the battalion FSO in the event he becomes a casualty, but I believe it should be the

senior company FSO who actually takes over that role in battle. Since he has access to a more sophisticated digital message device than the M23 mortar ballistic computer, he is better prepared and situated to interact with field artillery network. Only when the battle is over should the mortar platoon leader assume the duties of the battalion FSO if no replacement is readily available by then.

Finally, the battalion FSO should serve as the clearing house for all calls for fire, because only he can make a full evaluation of the fire support situation, and the mortar sections should receive their calls for fire from him. If necessary, of course, the company FSOs can call for mortar fire directly, but this option should be carefully reviewed during fire support rehearsals.

Heavy mortars are too important to be neglected. If our commanders come to realize how effective they are, and how fast they can be employed, heavy mortars will be allowed to take their appropriate place in any mechanized infantry battle.

Lieutenant Christopher J. L. Allen is a tank company executive officer in the 2d Battalion, 35th Armor, at Fort Carson. He previously led a tank platoon and a mortar platoon. He is a 1986 ROTC graduate of Cornell University.

Mortar Platoon Matrix

LIEUTENANT CRAIG S. LINDERMAN

In a battalion task force equipped with M1 Abrams tanks and M2 Bradley fighting vehicles, there is now a mobility gap between these new vehicles and the less capable M106 mortar carrier. (See also "Improved Mortar Vehicle," by Sergeant Gilbert F. Warner, *INFANTRY*, July-August 1989, pages 17-19.)

Lessons learned at the National Train-

ing Center (NTC) indicate that the 4.2-inch heavy mortar platoon's ability to provide successful close indirect fire support to the task force has become increasingly difficult because of this handicap. The platoon, to accomplish its mission, must acquire greater agility and initiative in the planning and execution phases of an operation. A mortar platoon matrix

can help a platoon leader accomplish this goal.

In recent years, the execution matrix technique has become increasingly popular for detailing portions of a field order. The strength of the matrix is its ability to present large amounts of information clearly and concisely. The elements of the operation order that are especially