

coordination between platoon leaders may be discussed at this time to further synchronization.

Conduct inspections. FM 7-8 provides an excellent discussion of inspections, including their frequency and conduct. At the squad and platoon levels, briefbacks provide another form of rehearsals that may be conducted along with inspections. At company level and above, they're part of the planning process.

Initial inspections should identify shortfalls that may make execution less effective, and on-the-spot corrections are performed accordingly. In any case, a standard needs to be set on the conduct of both the initial and the final inspections, and this should be specified in your TACSOP.

The initial inspection is run by NCOs. Leaders note shortfalls and give time for corrections before the final inspection. NCOs quiz soldiers on mission, intent, and concept. Special teams—aid and litter teams, prisoner and search teams, demolition teams—are quizzed on their anticipated duties. This is also a good time to update soldiers on any changes in the situation. When casualties occur, some of those soldiers you briefed may find

themselves in charge of their teams and squads.

The platoon leader or the appropriate section leader should conduct the final inspection. He should spot-check special equipment and quiz selected soldiers on what the unit is about to do. He should check, too, to see how effectively his NCOs have disseminated the platoon plan. The senior leader in the element absolutely must be confident that his soldiers know what goal the unit is to achieve.

Conduct reconnaissances during planning. At times, there may be an opportunity to recon the ground during a phase of preparation and before the OPORD is issued. This is especially true before the defense, when the unit is already in the general vicinity of the area they'll be defending. Platoons can be given tentative locations in a warning order or fragmentary order. Before occupation, they can move up, temporarily secure the area, then conduct a cursory reconnaissance that may help them in planning. After the company's key leader reconnaissance, the platoon leaders can conduct a detailed key leader reconnaissance to confirm their plans. Even squad leaders may have a chance to take their squads up to show

them the ground before the platoon OPORD. The key here is to make the best possible use of whatever time is available. Although this is just an example, there are many opportunities to take the initiative in furthering your preparation.

Any idea that contributes positively to execution should be incorporated into your TLPs. Use your TACSOP to get the most out of your tasks and the time available. On the other hand, don't stifle initiative by being so structured in your TLPs that there's no room for deviation.

Rest plans are a must. Effective planning and preparation will promote initiative, set standards, use time to the advantage of the unit, and substantially increase the probability of success in execution. Ultimately, effective planning and preparation will cause your unit to ensure that it has the necessary combat potential at your decisive point when and where it's needed, and it will save lives.

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Automatic Grenade Launchers Prelude to the Future

STANLEY C. CRIST

In September 1989 the United States Army published its Small Arms Master Plan, part of an ongoing effort to develop the ultimate weapons for infantry combat. The plan focuses on fielding and improving current

weapons—the MK 19 Mod 3 grenade machinegun, the M249 machinegun, the M16A2 rifle/M203 grenade launcher, M24 sniper rifle, M4 carbine, M9 pistol—while developing a three-member family of future small arms.

The proposed Objective Family of Small Arms would consist of an individual combat weapon, a crew-served weapon, and a personal defense weapon. At this stage, it is anticipated that both the individual combat

weapon and the crew-served weapon will use bursting munitions; in one sense, then, these future weapon systems could be considered direct descendants of present-day grenade launchers.

The high-velocity 40mm grenade was originally developed for use by Army helicopter gunships during the Vietnam War. The MK 19 grenade machinegun was actually created, however, to give the Navy's river patrol boats more firepower and has since been fielded by the Army, the Air Force, and the Marine Corps as well.

The MK 19 Mod 3 is an excellent weapon, one that can deliver suppressive fire on area targets out to more than 2,200 meters. The high-explosive, dual-purpose (HEDP) round reportedly can penetrate two inches of armor, which should be more than adequate against light armored vehicles. The canister ammunition that is said to be under development would give the weapon a tremendous short-range, anti-personnel capability.

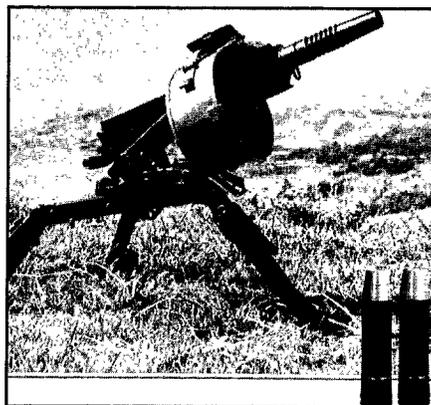
The MK 19's strong points can be fully exploited when it is employed as a vehicle-mounted weapon. It has been used as the primary or secondary armament on a wide array of combat vehicles, including tanks, helicopters, armored personnel carriers, river boats, and dune buggies.

The weapon's primary drawback is its weight. The gun weighs 75 pounds, the M3 tripod weighs 44 pounds, and each 20-round belt weighs 15 pounds. This makes the 40mm grenade machinegun impractical for dismounted infantry in fast-paced, offensive operations.

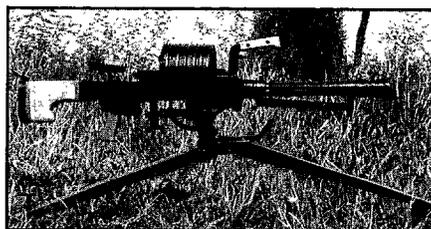
The former Soviet Union adopted an automatic grenade launcher—the 30mm AGS-17—in the mid-1970s. First gaining notice during the Soviet intervention in Afghanistan, the AGS-17 has been found in various third-world conflicts. At 1,700 meters, the high-explosive (HE)/fragmentation round has a shorter maximum range than the U.S. 40mm grenade, but its casualty radius is comparable. Canister and



U.S. 40mm Mk 19 Mod 3 grenade machinegun mounted on the M3 tripod.



Russian-designed AGS-17 automatic grenade launcher. Inset shows the 30mm ammunition.



Chinese Type W-87 grenade launcher with 12-round drum magazine in place.

Shaped-charge ammunition has been manufactured for the AGS-17, too, giving it a tactical flexibility similar to that of the MK 19.

Unfortunately, the AGS-17 also has another characteristic in common with the MK 19, which is its weight. The gun and tripod together total more than 100 pounds, making it better suited to firing

from the turret of an armored vehicle than by foot soldiers in pursuit of guerrillas. In recent years, the Chinese have copied the AGS-17, and this 30mm grenade launcher can be expected to attain even wider use around the globe as a result.

The Chinese have also developed the 35mm Type W-87 select-fire grenade launcher. Since its round is launched at less than 560 feet per second, this weapon would have to be placed in the medium-velocity category. Its maximum range is listed at 1,500 meters, with an effective range of 600 meters. Two types of ammunition are produced for the W-87—HE and HEAT (high explosive antitank). The HE round, consisting of an explosive charge surrounded by 400 3mm steel balls, has a casualty radius of approximately 10 meters. The shaped-charge round is said to be able to penetrate more than three inches of steel armor.

What is surprising about the Type W-87 is the physical contrasts between it and the American and Russian grenade launchers. While the MK 19 and the AGS-17 are heavy, belt-fed, tripod or vehicle-mounted weapons, the W-87 is extremely light (26.4 pounds), magazine or drum-fed, and made to be fired from the shoulder (it has a pistol grip, buttstock, and integral bipod). It also has a tripod for ground use that is also designed to double as an anti-aircraft mount.

The tactical advantages of such a weapon for light infantry could be enormous. Indeed, if the Type W-87 grenade launcher performs as specified, it would seem to be a prime example of the "leap-ahead" technology sought by the Small Arms Master Plan. If the Plan's future crew-served weapon is to become a reality, U.S. manufacturers must develop a weapon system whose capabilities include the advantages of the Type W-87.

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