

amazingly accurate. (All GBP barrels have a 1:9 rifling twist except for the 24-inch bipod heavy barrel, which has a 1:7 twist like the M16A2.)

Throughout my tests, all of the ammunition (2,000 rounds) functioned flawlessly, but the 68-grain match bullet and M855 ammunition produced the best accuracy.

I found the GBP superbly reliable and accurate. This particular rifle is so well designed that I was hard-pressed to find anything to criticize. The tested weapons performed flawlessly with live ammunition. Any soldier armed with a bull pup rifle that incorporated the tested design features would certainly have a

significant edge on the battlefield. The weapon did have some difficulty feeding and ejecting blank ammunition, but this is a minor problem that can easily be corrected with slight modifications to the blank adapter.

For many years, the United States had an aversion to using weapons that were designed overseas. In recent years, that attitude has changed. Currently, our military uses an Italian designed pistol (the M9) and a Belgian designed squad automatic weapon (M249). But the United States Government has wisely insisted that these weapons be produced in the United States under license of the original firm.

Perhaps we should continue that wisdom when we select a new battle rifle. If there is an ideal rifle already in production, we should use it — not reinvent it. This will result in a superb weapon for our troops and a tremendous saving in developmental costs for the taxpayer.

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Javelin: A Leap Forward

CAPTAIN JOHN T. DAVIS

The Javelin, previously known as the Advanced Antitank Weapon System-Medium (AAWS-M), is being developed as a replacement for the aging and much maligned wire-guided M47 Dragon.

The Javelin is a strategically deployable, man-portable, medium antitank weapon system. It can be dropped by parachute from an aircraft, carried over short distances, and employed by one soldier. Javelin technology, which is effective under obscured battlefield conditions, also enables a soldier to kill any enemy tank at ranges out to 2,000 meters. The Javelin features an integrated day/night (thermal) capability and is effective in countermeasure environments.

Although the Javelin is not as light as we would like, at 49.5 pounds it compares favorably to a Dragon (73.2 pounds) that is similarly equipped (with a four-hour day/night capability).

The Javelin consists of only two components — a command launch unit

(CLU) (which weighs 14.1 pounds with battery and carrying case) and a round of ammunition (which weighs 35.4 pounds). The Dragon, by contrast, consists of three components — a day tracker (8.6 pounds with carrying case), a night tracker (32.8 pounds with one battery, one coolant bottle, and carrying case), and a round of ammunition (28.8 pounds) with its limited countermeasure effectiveness.

Unlike the Dragon night tracker, the Javelin launch unit does not require coolant bottles to operate. The Javelin's expendables include one standard BA5590 lithium (SINCGARS) battery (2.5 pounds), which will function for four continuous hours. To operate for four hours in a limited visibility environment, the Dragon requires two nonstandard batteries at 1.5 pounds each and two coolant bottles at 1.5 pounds each.

The Javelin provides the soldier and his leaders with significantly more

flexibility in both fire planning and employment. Thus, the launch unit can be attached to the missile for an antitank capability, or it can be used alone for day or night surveillance.

The survivability of the infantry antitank gunner has been significantly improved through the combination of greater standoff, the Javelin's fire-and-forget technology, reduced launch signature, and the ability to fire from enclosures.

With a standoff twice that of the Dragon, the Javelin enables a soldier to engage tanks effectively beyond the effective range of machineguns, thereby negating the weapon of choice for suppressing antitank fire. This advantage is further improved by the soldier's ability to engage targets from virtually any firing position.

The weapon's smart-missile technology releases the soldier from the requirement to track the target. With the Javelin, he needs only to identify

and acquire his target, lock on, and fire — the missile does the rest. Once the Javelin is fired, the gunner can take cover, move to a different position, or reload and acquire another target while the first missile is still in flight.

The Javelin's soft launch does not cause a dust cloud to attract the enemy's attention and the inevitable suppressive fire that follows. Further, without the significant backblast, overpressure, and toxic gases normally generated during the firing of a missile, the soldier can also engage targets from enclosures.

The Javelin is the most lethal antitank weapon in the world. With it, a soldier can kill any enemy tank using either a top-attack or a direct-attack mode of fire. Top attack is the preferred method of engagement, because the top of the tank is the most vulnerable. But if the tank should move to a position protected by overhead cover (under a bridge, for example), a Javelin gunner, with the push of a button, can select the direct-attack mode and engage the target from any angle. The weapon's lethality is further improved through increased missile speed, an increased rate of fire, and a new tandem warhead.

The Javelin program has received some bad press as a result of a combination of cost overruns and a lack of understanding of the tremendous advantages to be gained from the leap-ahead technology incorporated into the focal plane array (FPA) guidance

system. FPA technology incorporates imaging infrared sensors and automatic in-flight tracking capabilities with a resulting fire-and-forget capability.

An extended engineering, manufacturing, and development test phase will



reduce the technological risks associated with the development of the FPA guidance system. To date, all of the guided flight tests have been direct hits. Targets have been engaged at ranges

from 545 meters to 1,200 meters under day and night conditions, and the methods of engagement have included both the top-attack and the direct-attack modes of fire.

The type of technical testing currently being conducted requires the use of unmanned firing platforms. These platforms have been placed in the raised (standing) position, the lowered (prone) position, and the intermittent (kneeling) position. Firing has been successfully conducted from a room-sized enclosure with only one standard window and one standard door for ventilation.

The development and fielding of the Javelin — the most advanced antitank weapon in the world today — is the Infantry School's number one antitank weapon priority. The Javelin will begin replacing the Dragon in U.S. Army and Marine Corps Infantry units and Army combat engineer units worldwide beginning in the third quarter of Fiscal Year 1996. With it, the Infantryman will have the means to attack, kill, and survive on the combined arms battlefield of the future.

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Assuming Leadership

LIEUTENANT COLONEL COLE C. KINGSEED

Many commanders face upcoming changes of command with mixed emotions — trepidation, or a sense of loss, on one hand, and relief that they have survived the rigors of command on the other. My own emotions on

giving up battalion command bordered on profound sadness. It was not so much that I minded relinquishing command. A unit needs the infusion of fresh ideas, whether the incumbent commander admits it or not. But I faced the distinct

possibility I might never again serve as close to frontline soldiers. That prospect saddened me, because I truly enjoyed commanding young soldiers united in the common cause of defending this great nation.