XM312: The Machine Gun of the Future?

DEBI DAWSON

The U.S. Army is considering replacing one of the U.S. Army's oldest weapons, the M2 .50 caliber machine gun, after more than three-quarters of a century of service. One of the potential replacements for the M2 would be the XM312 .50 caliber Advanced Crew Served Weapon (ACSW). The XM312 is one-third of the weight, has less recoil, and provides Soldiers with the punch of a .50 caliber machine gun in the footprint of a 7.62mm weapon system.

The XM312 is a spinout of technologies developed in the 25mm XM307 ACSW program. The weapon is capable of firing all of the current .50 caliber ammunition in the inventory, including the standard M33 ball round, the M8 armor-piercing incendiary, the M903 saboted light armor penetrator, and the MK211 multipurpose round that penetrates, fragments, and starts fires.

Alan Li, a product director for Product Manager Crew Served Weapons, Project Manager Soldier Weapons, highlights that one major benefit of the XM312 is the weight savings. "The XM312 weighs 53 pounds, including tripod and traversing and elevation mechanism, compared to the M2 system's weight of 128 pounds, a savings of 75 pounds." He noted that the system can also be set up faster than an M2 because it does not need ballast to weigh down the tripod.

The XM312 has 70 percent less recoil, which enables Soldiers to use weapon magnification sights they can put their eyes on, which was unthinkable and potentially painful with the M2. Li added, "Lower recoil also means less dispersion of rounds and better accuracy. Better accuracy improves the ease of weapon qualification, provides a more economic use of rounds and reduces the logistical burden."

Once the XM312 is deployed, all vehicles that mount the M2 will be able to mount the new system. Tests have been successfully conducted mounting the system to the Stryker Combat Vehicle and the Common Remotely Operated Weapon Station (CROWS).

PEO Soldier Strategic Communications

The XM312 is one-third of the weight of the M2 .50 caliber machine gun, has less recoil, and provides Soldiers with the punch of a .50 caliber in the footprint of a 7.62mm weapon system.

Other benefits of the XM312 include safety and training applications. The XM312 eliminates the need for the operator to adjust the headspace and timing and any special tools for maintenance, reducing the amount of training required. The current XM312 has 131 parts, compared with 244 for the M2. "This translates to lower provisioning, increased main-tainability, and improved reliability with fewer parts that can go wrong," Li said. It is expected that training Soldiers for the XM312 will require less time because the system is easier to control when firing, making it easier to train for qualifications.

The weight savings, reduced recoil, and increased accuracy of the XM312 allow for employment in places that were unthinkable for an M2, such as in light aircraft, small watercraft and in places previously reserved for only light to medium machine guns.

Colonel Carl Lipsit, the officer who leads Project Manager Soldier Weapons, said that the M2 has served the Army well, but that it is time for a change. "It is a marvelous weapon that contributed to our success on the battlefield since it was fielded. But the times have changed, technology has changed, and the way we fight wars has changed over time," COL Lipsit said. "To the warfighter, the XM312 is an excellent example of modern technology and design."

The Army has recently issued a requirement for a lightweight .50 caliber machine gun. The Special Operations Command (SOCOM) also has a vehicle requirement for a lightweight/low recoil weapon, but is also looking to expand use of the weapon for dismounted units. The XM312 has the potential to satisfy all three of these needs in one package.

Li noted that, according to the current program cycle, the XM312, if selected, could be fielded at the end of Fiscal Year 2012, or sooner based on Army funding priorities. He added that those who will receive the biggest benefit from the new weapon will be the light units, such as the 82nd Airborne Division, the 101st Airborne Division (Air Assault) and SOCOM forces.

PEO Soldier is the U.S. Army organization that develops, procures, fields and sustains virtually everything the Soldier wears or carries. For more information on Project Manager Soldier Weapons or other PEO Soldier programs, visit www.peosoldier.army.mil.

New PT Jackets Make Light Shine

Often when you hear about Soldiers and visibility, the stories are about trying to camouflage them in the field. However, when it comes to conducting their physical training (PT), our service members need to be seen. Soldiers often perform PT in the early morning or early evening hours when it is dusk or dark.

"The more visible the Soldiers are when doing PT in low light conditions, the safer they will be," said Beverly Kimball, product engineer.

This is where the U.S. Army Product Manager Clothing and Individual Equipment (PM-CIE) comes in. PM-CIE is working with the U.S. Army Natick Soldier Research, Development and Engineering Center's Operational Forces Interface Group (OFIG) to conduct a user evaluation of new reflective technologies which enhance the current Improved Physical Fitness Uniform (IPFU) jacket. Two prototype fabrics have been developed with the new technology and sample jackets have been fabricated.

OFIG located and coordinated with 600 participants at Fort Hood and Fort Bliss, Texas, and Fort Lewis, Washington, to conduct the user evaluations, beginning in November. The Soldiers participating will be surveyed on their acceptance of the sample jackets.

"The prototype jackets are very similar in appearance to the current jacket during daylight," said Dave Geringer, assistant product manager, PM-CIE, Fort Belvoir, Virginia, "however, despite their subtle daylight appearance, both patterns are highly reflective and provide a significant improvement in visibility."

One of the jackets has a subtle digital reflective pattern, while the other has a slight texturized reflective pattern.

"All participants will have an opportunity to wear all the test items. But we want to ensure that all the jackets are tested in the same climate and conditions, so we will be conducting a 'within groups' type evaluation so styles are worn simultaneously," said Kimball.

Courtesy photos

Prototype jackets for the Improved Physical Fitness Uniform with new reflective technologies will be evaluated at Fort Hood and Fort Bliss, Texas, and Fort Lewis, Washington, between November 2007 and March 2008. These photos show the jackets in daylight (top photo) and lowlight (bottom photo) conditions.

The jackets will be evaluated for comfort, durability, launderability, wind resistance, water resistance, warmth, and reflective capabilities.

The evaluations are expected to continue through March 2008, and once complete, the data will be compiled into a final report.

Geringer said, "If the candidates perform well, they will be presented to the Army Uniform Board (AUB) for approval to replace the current IPFU jacket."

(This article is courtesy of the U.S. Army Soldier Systems Center - Natick Public Affairs Office.)

Correction

In the September-October 2007 issue of *Infantry*, Field Manual 3-24, *Counterinsurgency*, was mistakenly referred to as FM 3-14 in the headline to Major Jacob M. Kramer's article "The Two Sides of COIN: Applying FM 3-24 to the Brigade and Below Counterinsurgency Fight." We apologize for any inconvenience and/or confusion.

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USAMU Duo Wins Sniper Competition

BRIDGETT SITER

"A wealth of information that isn't shared is worthless," said Sergeant 1st Class Jason St. John, half of the two-man sniper team from the U.S. Army Marksmanship Unit.

St. John and his partner, Staff Sergeant Robby Johnson, returned from a second-place finish last year to beat 16 other teams in the seventh annual International Sniper Competition at Fort Benning, Georgia, October 26 through November 2.

Two-man spotter-shooter teams from the Army, sister services, Canada, Ireland and Sweden competed in the weeklong event, which focused more this year than ever before on training and sharing information on the latest advancements in sniping tactics and technology, said Captain Keith Bell, Sniper School commander.

"Finding the best two-man sniper team in the world — that's secondary to what we do here. We train Soldiers to be snipers, the most deadly weapons on the battlefield," he said. "That's what's important."

The competition served another purpose as well, Bell said. Each year it draws more and more attention from the media — each year more and more people come to understand the role the sniper plays on today's battlefield.

"When the enemy blends in so well with the population, you can't take him out with a hand grenade or a machine gun," Bell said. "It's critical to have these snipers in undisclosed locations, basically invisible, who can take out a target in a crowd with one bullet placed precisely."

Johnson and St. John served as snipers with the 75th Ranger Regiment's 3rd Battalion. Johnson said the value of a sniper team cannot be underestimated.

"We're a platoon's best friend," Johnson said. "We cover their backs, we cover their fronts, so they can do the mission, whether they're breaching a building or going over a wall. We've got eyes on it before they even get there."

With five combat tours between them — and now the International Sniper championship — St. John and Johnson said they've yet to master the skill of sniping. And that's a good thing.

Photos by Captain Kamil Sztalkoper

A shooter uses a vehicle for cover during a stress shoot challenge on the first day of competition.

"There's always room to learn and improve," St. John said. "The moment you think you're perfect is the moment you've discovered your greatest shortcoming."

Johnson said he came away from every shooting event "kicking himself" for falling short.

"That's the value in (the competition). Basically, it's a kick in the face," he said.

The competition included numerous events designed to replicate combat situations snipers will find themselves in on the modern battlefield.

"You realize your shortcomings. It doesn't matter if you've been a sniper for years or you're competing for the first time, you go out there and you realize there's so much room for improvement."

The competition will be aired on the Discovery Channel at a time and date to be announced.

(Bridgett Siter is the assistant editor of The Bayonet *at Fort Benning, Georgia.)*