MK22: The Army Sniper's Solution to a 21st Century Threat

CHRISTOPHER ROBERTS

The sniper's ability to strike fear into the hearts of the enemy has long been documented. It is a history laden with stories of near-impossible shots and stealth akin to an apex predator. The sniper's ability to change the tempo of a fight is nearly unquestioned. When employed correctly, they provide commanders with overmatch and increased mission success. However, our snipers are facing a capability gap with their current weapon systems that is jeopardizing our battlefield advantage. Our sniper weapons and technology are now overmatched by our peer competitors.

Capabilities assessments and numerous after action reports from the Global War on Terrorism identify critical capacity and sufficiency gaps in a sniper's ability to engage targets at extreme long range with precision rifle fire. So what equipment will give our snipers the advantage over our adversaries? What does that overmatch look like in today's operating environment? How does a sniper fit into joint all-domain operations (JADO)?

The sniper's role to collect battlefield information and provide precision fires on key targets has not changed. As stated in a *Small Arms Defense Journal* article titled, "Government Acquisitions," "The sniper's ability to engage point targets with accuracy at long range with minimal risk of collateral damage makes them useful in all levels of conflict." What differentiates today's snipers from those of past is how they have adapted to the modern battlefield.

Today's sniper teams are deploying with a different approach to team layout in order to conduct complex engagements and effectively cover urban environments. Legacy sniper teams were broken down into two-man teams (a shooter and a spotter). In order to keep up with ever-changing threats and operating environments, sniper teams needed to have more than one barrel aimed at the objective. This meant that spotters began carrying an accurized weapon and had to spot with their weapons optic instead of a stand-alone spotting system. Additionally, range estimation practices had to change and rapid target engagement techniques became common place. These techniques allowed snipers to give up the MIL-Relation Formula for quick "snap" measurements, thus relying on the danger zone created by the trajectory of the bullet to ensure an impact on intermediate targets (0-600 meters). The reliance on precise measurements and laser rangefinders (i.e., STORM) is still necessary for extended range targets.

These changes among other tactics, techniques, and procedures (TTPs) and program-of-instruction updates to the U.S. Army Sniper Course have made our snipers more capable than ever before. However, they are still left with the equipment shortcomings of years past. The Maneuver Capabilities Development and Integration Directorate (MCDID) at Fort Benning, GA, has assessed an inability of current M110 sniper rifles using 7.62x51mm ammunition and M2010 .300 Winchester Magnum ammunition to provide precision fire beyond 800 and 1,200 meters respectively. This has limited the sniper's ability to perform sniper and counter-sniper operations across the required range of military operations. Another tool in the sniper's kit, the M107, with .50 cal ammunition (MK21 mod 0), did extend the reach of the sniper team against anti-materiel targets. Its 2-3 minute of angle accuracy capability made engaging anti-personnel targets less than predictable.

Enter the MK22 Precision Sniper Rifle (PSR). Recognizing current shortfalls, MCDID is working to stop the "one-size-fits-all" approach to arming the sniper community. It identified that each unit has a different mission and may require different equipment and ammunition. This puts the Army on a path to adopt a modular weapon system, the MK22 PSR, which allows the commander and his sniper team to change calibers dependent on the mission set. An additional benefit to this modular weapon system would be to streamline the inventory of weapon systems.

This rifle provides a weapon system that exceeds the performance of current sniper rifles. The MK22 is superior to

The MK22 Precision Sniper Rifle

the current inventory through increased accuracy, portability, versatility, munitions, and both day and night target acquisition. The MK22 increases a sniper's combat effectiveness and survivability through superior precision fire and greater stand-off distances. The MK22 also increases hit probability at all intermediate ranges over current systems and is capable of completing all current sniper tasks to a higher degree of probability.

How will the MK22 accomplish these goals? First, it is prudent to know what the MK22 is. The MK22 is a modified version of the market ready Barrett Multi-Role Adaptive Design. Capable of caliber change at the user level allowing for a dual purpose (anti-personnel and anti-materiel) capability up to 1,500 meters. Proposed calibers for this sniper weapon system are 7.62mm NATO, .300 Norma Magnum, and .338 Norma Magnum. The rifle comes with a Nightforce ATACR (USSOCOM) and a Leupold MK5hd (U.S. Army) outfitted with the Army's Mil-grid reticle. The MK22 will replace the M2010 and M107 and their respective families of ammunition. The M110 Semi-Automatic Sniper System will remain as the secondary (spotter's) weapon.

The U.S. military has been considered the largest, best equipped, and most technologically advanced military in the world for the past 60-70 years. Many would question whether solutions like the MK22 are necessary. Unfortunately, these are not assumptions we can continue to safely make for our Soldiers in preparing for future conflicts. Our adversaries watched the transformation of the U.S. military during our conflicts in Iraq and Afghanistan. Near peers like Russia and China now wield a sophisticated blend of drones, jammers, and long-range artillery. Additionally, their use of proxies, irregular soldiers, and special forces snipers to fight in depth has limited the advantage that our snipers have grown to expect.

With these weapon systems in place, the sniper team is better equipped than ever before. Incorporating updated TTPs and technology, the team will be able to conduct operations in all environments and against varying enemies. While snipers' role in JADO is ever-changing, they will be prepared to adapt to that change and destroy the enemy with overmatching capabilities.

Christopher Roberts serves as a precision effects capability developer with the Soldier Requirements Division, Maneuver Capabilities Development and Integration Directorate (MCDID) at Fort Benning, GA.

Photos courtesy of the Maneuver Capabilities Development and Integration Directorate

The MK22 is a modified version of the market ready Barrett Multi-Role Adaptive Design. It increases a sniper's combat effectiveness and survivability through superior precision fire and greater stand-off distances.

Supporting the Future Close Combat Force at Night

MAJ DAN VARLEY

As the Army begins to modernize its "tip of the spear" focused on the close combat force made up primarily of infantry, cavalry scouts, and combat engineers, it can't afford to lose focus on others who make the fight possible. Critical enablers to the close combat force are those in the combat support branches who ensure that Soldiers closing with and destroying the enemy have the ammunition, food, water, and fuel to sustain long duration combat. To ensure sustainment, those combat support forces must keep up with the close combat force and move to them when support is needed.

The Army is modernizing with the goal in mind of being able to defeat a near-peer adversary in direct conflict. What that doesn't necessarily mean is counterinsurgency fights like the U.S. has been involved in over the last nearly two decades. It also does not mean proxy state conflicts, such as that which we have seen in Syria over the last nine years. The fight the Army is preparing for is direct conflict with another global military power, where dominance in any of the domains of warfare (land, sea, air, space, or cyber) is not guaranteed and can change at any moment. For most American service members, it is a daunting thought to imagine a battlefield where they are not assured that enemy aircraft, maybe even drones, will not be flying over at any time with a precision strike capability.

How does a night-vision or low-visibility capability fix these strategic challenges the U.S. is preparing to face? Holistically, it doesn't, but it is a key piece of the puzzle to ensure mobility on the battlefield. The Army is focusing its resources to modernize its close combat force so it can operate semi-autonomously, in highly contested domains,