

# Marines to Receive New, Lightweight Ammo for Machine Gun

MARINE CORPS BASE QUANTICO, Va. – Marine Corps Systems Command (MCSC) on Jan. 16 awarded a contract to MAC LLC – a Mississippi-based small business – for about \$10 million for polymer ammunition to be used in the M2 machine gun.

The ammo is significantly lighter and easier to haul than traditional brass casings.

“Polymer ammunition meets the same specifications for effectiveness as the brass ammo,” said Lt. Col. Bill Lanham, MCSC’s deputy program manager for ammunition.

Polymer is a class of plastic-like material that weighs less than brass and other metals commonly used in weapon systems.

The Corps intends to replace brass ammunition with polymer ammo, steel cans with polymer cans and traditional metal links with nylon links used to hold ammunition. The transition from brass to polymer enables them to carry more ammo.

Lightening the load of ammunition ultimately will increase efficiency on the battlefield, Lanham said.

“When we go to war, we need more ammo to defeat our adversaries,” he said. “Polymer ammo gives Marines the opportunity to carry more ammunition or make trades with what gear is important to carry during combat.”

In addition to the weight advantage, polymer has myriad other benefits over brass. For example, a machine gun often heats up when Marines rapidly fire brass ammo. Over time, the weapon’s high temperature can soften the material and accelerate erosion. Parts can also break more easily.

However, polymer ammo absorbs heat expelled from the casing, preventing the machine gun from warming. This means Marines can fire for longer periods of time with less problems, said John Carpenter, assistant program manager for engineering with PM Ammunition.

Carpenter also noted how the polymer ammo will provide logistical benefits. Before Marines access the ammunition on the battlefield, it must be transported across the ocean during a process that requires much fuel, manpower and money. Lighter ammo can mitigate this burden.

“Everything goes on a boat, ship or plane,” Carpenter said. “But when we reduce the weight of ammunition, we also reduce the number of vehicles in a convoy, amount of funding and the number of Marines we put in harm’s way.”

The Marine Corps isn’t the only service pursuing polymer ammo. The U.S. Army is exploring the 7.62 lightweight small-caliber ammunition with the same polymer technology, while the Navy is pursuing an effort to develop small caliber lightweight cartridges and links that exceed the ballistic requirements of traditional cartridges.

The Navy will partner with the Marine Corps to further advance their lightweight case and link development for a solution. Per the contract with MAC Technology, MCSC will receive a small quantity of polymer ammunition in the fourth quarter of fiscal years 2020 and 2021. Marines will assess the ammo to increase familiarity and validate the polymer rounds during an operational validation scheduled for the third quarter of fiscal year 2021.

The program office estimates fielding will begin in fiscal year 2022. Lanham and Carpenter said the Corps is excited for the potential that polymer ammunition will have in winning the future fight.

“What you’re seeing is not a quick surge of new technology,

but the work of engineers, project officers and logisticians for the past decade,” Carpenter said. “The goal is to provide innovative and effective technology for the Marine Corps.”