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."

Bell Boeing CMV-22B Osprey Successfully Completes First Flight

AMARILLO, Texas – The first CMV-22B Osprey, built by Boeing and Bell Textron Inc., completed first flight operations at Bell's Amarillo Assembly Center, Boeing said in a Jan. 21 release. The CMV-22B is the latest variant of the tilt-rotor fleet, joining the MV-22 and CV-22 used by the U.S. Marine Corps and Air Force.

The U.S. Navy will use the CMV-22B to replace the C-2A Greyhound for transporting personnel, mail, supplies and high-priority cargo from shore bases to aircraft carriers at sea. Bell Boeing designed the Navy variant specifically for carrier fleet operations by providing increased fuel capacity for the extended range requirement. The mission flexibility of the Osprey will increase operational capabilities and readiness, in addition to ferrying major components of the F-35 engine.

"With the ability to travel up to 1,150 nautical miles, the CMV-22B will be a lifeline for our servicemen and women out at sea," said Kristin Houston, vice president of Boeing's tilt-rotor programs and director of Bell Boeing's V-22 program. "The quality and safety built into this aircraft will revolutionize the way the U.S. Navy fulfills its critical carrier onboard delivery mission."

Bell Boeing will deliver the first CMV-22B to Air Test and Evaluation Squadron (HX) 21 in early 2020 for developmental testing.

Navy Names Future Aircraft Carrier Doris Miller During King Day Ceremony

Family members of World War II hero Doris “Dorie” Miller react after the unveiling of the new Ford-class aircraft carrier USS Doris Miller at a Martin Luther King Jr. Day celebration at Joint Base Pearl Harbor-Hickam. U.S. Navy/Mass Communication Specialist 2nd Class Alexander C. Kubitza

WASHINGTON – Acting Navy Secretary Thomas B. Modly on Jan. 20 named a future aircraft carrier the USS Doris Miller (CVN 81) during a Martin Luther King Jr. Day ceremony in Pearl Harbor, Hawaii, honoring black Americans of the Greatest Generation.

The day’s ceremony also paid homage to the beginning and end of America’s role in World War II and the scene where Doris Miller’s heroic actions cemented him into America’s history books.

“It’s an honor to join you today on the birthday celebration of one of our nation’s – and the world’s – greatest spiritual, intellectual and moral leaders,” Modly said. “Seventy-five years ago, our nation bound together to secure victory against an existential threat, but also to secure opportunities for broader liberty and justice for the entire world.”

“But we were not perfect in our own pursuits of these values here at home,” Modly continued. “That contradiction is an undeniable part of our history, one that cannot be glossed over or forgotten.”

Doris “Dorie” Miller manned anti-aircraft guns during the attack on Pearl Harbor on Dec. 7, 1941, for which he had no training, and he tended to the wounded. He was recognized by the Navy for his actions and awarded the Navy Cross – the first black man to ever receive the honor.

U.S. Rep. Eddie Bernice Johnson (D-Texas) delivered an emotional speech about the influence of Miller’s legacy on her own life.

“All of my life, I’ve heard about how great Doris Miller was,” Johnson said. “[He] was my childhood hero. It was the spirit of Dorie Miller that made me appreciate being an American more than anything else because, in the days of real segregation, a black man from my hometown had stepped up to help save America. Dorie Miller started the civil rights movement and perhaps even gave Martin Luther King Jr. the spirit to lead us into the era of which he did.”

Modly noted that throughout U.S. history, the finest of every generation have stepped forward to serve the cause of freedom around the world even if they were denied those same freedoms at home simply because of the color of their skin.

On Dec. 7, 1941, Doris Miller did not let the prejudice of others define him, the Navy secretary said. Johnson said naming CVN 81 in honor of Doris Miller has done so much to recognize and highlight that no matter the color of a person’s skin, they can achieve anything.

U.S. Rep. Bill Flores (R-Texas), which includes Miller’s hometown of Waco, said it was an honor to pay tribute to one of America’s heroes from the Greatest Generation.

“[Miller] was a man who exemplified the hearts of our Sailors and the spirit of Rev. Martin Luther King Jr., who we also recognize today,” Flores said. “Dr. King once said, ‘The time is always right to do something right’ and that is what Petty Officer Miller did. His story of bravery is a testament to his courage and commitment to serve both his fellow Sailors and his country.”

For the members of Miller’s family present at the ceremony, it was a moment to reflect on the legacy their family lives to honor with every generation.

“When Uncle Doris decided that he was going to step up to the machine gun and shoot, it was a ‘why not me?’ moment,” said Henrietta Blednose Miller, a niece of Miller’s. “As we go through life, we’re all going to be confronted with ‘why not me?’ moments whether they are small or big, but with each one, you will be affecting someone if you take an action at that moment.”

CVN 81 will be the second ship named in honor of Miller and the first carrier ever named for a black American. The Doris Miller will also be the first aircraft carrier to be named in honor of a Sailor for actions while serving in the enlisted ranks.

Raytheon Delivers 10th AQS-20C Mine-Hunting Sonar to Navy

WASHINGTON – Raytheon Co. has delivered its 10th AN/AQS-20C mine-hunting sonar system to the U.S. Navy, the company said

in a Jan. 15
release.

The sonar-towed body was officially transferred to the Naval Surface Warfare Center, Panama City Division. The system – which is the program
of record for the Navy's Littoral Combat Ship mine countermeasure mission
package – is now fully qualified and will move toward initial operating capability.

The AN/AQS-20C is made up of five
distinct sonars, including a synthetic aperture sonar that provides the highest
possible resolution for acoustic identification. The system detects,
classifies, localizes and identifies mines on the seabed, near-bottom moored
mines, volume mines and near-surface mines.

"AQS-20C is capable of enabling true single-pass, mine-hunting when paired with the Barracuda mine neutralizer," said Wade Knudson, senior director of Raytheon's Undersea Warfare Systems business area. "Delivery of the 10th towed body brings this critical autonomous technology one step closer to IOC."

The AQS-20C system is platform agnostic and can be integrated onto various tow vehicles. It is a key element in single sortie detect-to-engage capability, which combines the search-detect-identify and neutralize elements of a mine countermeasures (MCM) mission on a single platform.

The program completed developmental testing last February and will undergo further integration on the MCM Unmanned Surface Vehicle early this year and ultimately aboard the littoral combat ship.

Boeing, Navy Complete First Super Hornet IRST Block II Flight

An F/A-18 Super Hornet equipped with a Block II Infrared Search & Track prepares for its first flight with the long-range sensor. The passive sensor, which provides aircrew with enhanced targeting, will be delivered with Super Hornet Block III aircraft. U.S. Navy

ST. LOUIS – For the first time, Boeing and the U.S. Navy flew an F/A-18 Super Hornet equipped with an Infrared Search & Track (IRST) Block II pod in late 2019, the company said in a release.

IRST Block II is a critical component of the Block III Super Hornet. The Block III conversion includes enhanced network capability, longer range with conformal fuel tanks, an advanced cockpit system, signature improvements and an enhanced communication system. The updates are expected to keep the F/A-18 in active service for decades to come.

IRST is a passive, long-range sensor incorporating infrared and other sensor technologies for highly accurate targeting.

“The IRST Block II gives the F/A-18 improved optics and processing power, significantly improving pilot situational awareness of the entire battle space,” said Jennifer Tebo, Boeing’s director of F/A-18 development.

Currently in the risk reduction phase of development, IRST Block II flights on the Super Hornet allow Boeing and the Navy to collect valuable data on the system before deployment to

the fleet. The Block II variant will be delivered to the Navy in 2021, reaching initial operational capability shortly thereafter.

“The IRST Block II sensor gives Navy fighters extended range and increasing survivability. This technology will help the Navy maintain its advantage over potential adversaries for many years,” said Kenen Nelson, Lockheed Martin director of fixed wing programs, supplier of the IRST sensor.

Lockheed Gains $13.9 Million for Navy Advanced Electronic Warfare Systems Work

SYRACUSE, N.Y. – Lockheed Martin will continue supporting engineering and fielding efforts for the Surface Electronic Warfare Improvement Program (SEWIP) AN/SLQ-32(V)6 under a $13.9 million engineering services contract awarded by the U.S. Navy, the company said in a Jan. 13 release.

Services include engineering efforts to perform analysis and design, document engineering baselines and modification of systems, subsystems and components for test and evaluation.

“We are proud to continue providing the U.S. Navy with ongoing engineering services for the SEWIP program. Our partnership and commitment to the Navy and to keeping our warfighters safe is our No. 1 priority,” said Hamid Salim, vice

president of advanced product solutions for Lockheed Martin Rotary and Mission Systems. “The SEWIP system enables electromagnetic spectrum dominance for our naval fleet.”

AN/SLQ-32(V)6 incorporates electronic support receiver, antenna and combat system interface upgrades as well as adding the high gain/high sensitivity adjunct sensor, the specific emitter identification adjunct sensor, the AN/SLA-10D blanker and a liquid conditioning unit.

This award is part of a five-year contract totaling $75 million if all options are exercised. Work will be performed at the corporation’s electronic warfare center of excellence in Syracuse, New York.

Navy Awards Lockheed $43 Million for E-2D Electronic Support Measures Upgrade

OWEGO, N.Y. – Lockheed Martin has received a $43 million contract modification from the U.S. Navy to upgrade to the AN/ALQ-217 Electronic Support Measures (ESM) system for the E-2D Advanced Hawkeye, the company said in a release.

This modification increases the scope of the existing E-2D AN/ALQ-217D electronic support measures and provides upgrades to the receiver/processor, active front end and receiver antenna weapons replaceable assemblies.

These upgrades will give the warfighter additional performance in dense littoral and open-ocean environments. The system’s enhanced situational awareness and full autonomy will also reduce operator workload, enable faster reaction time and improve survivability.

“We are pleased to provide an upgraded AN/ALQ-217 ESM system for our U.S. Navy customer,” said Hamid Salim, vice president, Advanced Product Solutions, Lockheed Martin Rotary and Mission Systems. “The additional modifications are critical upgrades for the E-2D Advanced Hawkeye to improve overall performance in a contested battlespace and provide the capability required by today’s warfighter.”

The Lockheed team will deliver several AN/ALQ-217D ESM upgrade kits to support development and test through 2023. This is a 12-month period of performance adjustment from the initial contract award.

The base AN/ALQ-217D contract upgrades include improved combat identification networked-electronic warfare for multiship

geolocation with other carrier air wing aircraft and detection of advanced threat radar systems. In addition, the upgrades further improve the platform’s antennas and active front ends.

Lockheed Martin has been the AN/ALQ-217 ESM supplier on the E-2D Advanced Hawkeye program since 1999. Most of the work will be performed in Owego, New York, and is expected to be completed by September 2023.

Raytheon, Major Tool and Machine Team Up on SPY-6 Radars

WASHINGTON, D.C. –
Raytheon has signed an
exclusive teaming agreement with Major Tool & Machine Inc. to develop array
structures for the U.S. Navy’s SPY-6 radar program when it transitions from
low-rate initial production to hardware production and sustainment, Raytheon
said in a Jan. 14 release.

SPY-6 is a family of next-generation, integrated air and missile defense radars that is being installed on more than 50 ships across seven Navy ship classes.

“Major Tool’s array structures will literally serve
as the foundation upon which we build the U.S. Navy’s most advanced radars,”
said Paul Ferraro, vice president of Raytheon’s Seapower Capability Systems

business. “Our team of industry-leading partners is ready to deliver SPY-6’s
unmatched, multimission capability to the surface fleet.”

Since its inception in January 2014, the Raytheon-led SPY-6 program has met all 20 milestones, ahead of or on schedule. The radar has a track record of performance, demonstrating its multimission capabilities against an array of single and multiple, simultaneous targets throughout the Navy’s extensive testing program.

AN/SPY-6(V) remains on schedule for delivery to the first DDG 51 Flight III, the future USS Jack H. Lucas (DDG 125). The first delivery of AN/SPY-6(V)2 to LHA 8, the USS Bougainville, an America-class amphibious assault ship, is on plan for 2021.

L3Harris to Provide Expeditionary UUVs to Navy

FALL RIVER, Mass. – L3Harris Technologies has been selected to provide an unmanned undersea vehicle for expeditionary undersea missions for
U.S. military forces by the U.S. Navy and the Defense Innovation Unit (DIU),
the company said in a Jan. 14 release.

DIU, which accelerates commercial technology to solve national security solutions, awarded the agreement to L3Harris for the Navy’s Next
Generation Small-Class Maritime Expeditionary Mine Countermeasures Unmanned
Undersea Vehicle (MEMUUV) program.

https://www.youtube.com/watch?v=5DcWpCJaxVA
This award includes the delivery and testing of an Iver4-900 PW UUV and two field swappable modular payload sections, including real aperture and synthetic aperture sonars. Additional sensors, swappable battery chemistries and data solutions are included with the prototype system to provide U.S. military forces with a highly capable UUV that can detect, classify, localize and identify targets on the ocean floor and in the water column in support of Expeditionary Mine Countermeasures (ExMCM), Explosive Ordnance Disposal (EOD) and undersea search operations.

"The Iver4 is the culmination of many years of UUV development, customer feedback and application knowledge for military applications," said Daryl Slocum, vice president and general manager of unmanned maritime systems for L3Harris. "This platform has been custom-built to address the needs of the ExMCM and EOD communities. With its flexible payload, transportable package, extended endurance and high-performance accuracy, the Iver4 is leading the next generation of small class UUVs."

Lockheed to Deliver 50 C-130Js Via Multiyear III Award

Two KC-130J Super Hercules conduct a ceremonial formation flight for the VMGR-352 75th anniversary above Marine Corps Air Station Miramar, California. U.S. Marine Corps/Lance Cpl. Clare J. McIntire
MARIETTA, Ga. – Lockheed Martin will deliver 50 C-130J Super

Hercules to the U.S. government through a C-130J Multiyear III award, which was finalized by the government on Dec. 27, Lockheed announced Jan. 13.

The Department of Defense awarded more than $1.5 billion in funding for the first 21 C-130J aircraft on the multiyear award. The overall award, worth more than $3 billion, provides Super Hercules aircraft to the U.S. Air Force (24 HC/MC-130Js), Marine Corps (20 KC-130Js) and Coast Guard (options for six HC-130Js). Aircraft purchased through the C-130J Multiyear III award will deliver between 2021 and 2025 and will be built at Lockheed's Marietta, Georgia, facility.

"The C-130J Multiyear III award represents a joint commitment between Lockheed Martin and the U.S. government in delivering proven capability that meets our operators' mission and affordability requirements," said Rod McLean, vice president and general manager of air mobility and maritime missions at Lockheed.

The C-130J is the global standard in tactical airlift, providing a unique mix of versatility and performance to complete any mission. The Super Hercules worldwide fleet has more than 2 million flight hours and is the airlifter of choice for 20 nations.