

# Upgraded RAM Missile Ready for U.S. Navy



The amphibious dock landing ship USS Ashland (LSD 48) launches a RAM during an exercise in the Pacific Ocean in March. (U.S. Navy/Mass Communication Specialist 2nd Class Markus Castaneda PARIS – The

U.S. Navy successfully completed a series of guided flight tests for Raytheon

Co.'s Rolling Airframe Missile (RAM) Block 2A short-range, surface-to-air

missile, the company said in a release.

Testing

occurred at Naval Air Warfare Center in China Lake, California, and from the

Navy's self-defense test ship off the coast of Southern California.

RAM is the world's

most modern ship self-defense weapon and protects ships of all sizes. It is

deployed on more than 165 ships in 11 countries, ranging from 500-ton fast

attack craft to 95,000-ton aircraft carriers. The latest software upgrade

enhances guidance and the missile's capability to defeat threats.

Raytheon

expects to deliver the RAM Block 2A missile to the Navy by the end of the year.

RAM is an international

cooperative program between the United States and Germany.

Raytheon and the

German company RAMSYS share development, production and maintenance costs.

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# Littoral Combat Ship Minneapolis-Saint Paul Is Christened, Launched



The future Minneapolis-Saint Paul is launched on June 15 at the Fincantieri shipyard in Marinette, Wis. Lockheed Martin Corp.

MARINETTE,

Wis. — The Lockheed Martin-led shipbuilding team launched Littoral Combat Ship 21, the future USS Minneapolis-Saint Paul, into the Menominee River at the Fincantieri Marinette Marine Shipyard on June 15.

Ship sponsor

Jodi J. Greene, deputy U.S. Navy undersecretary for policy, christened LCS 21

just prior to launch, according to a Lockheed press release.

“LCS 21 is going

to bring the name ‘Minneapolis-Saint Paul’ all around the globe,” said Greene, who

is native of the Twin Cities.



U.S. Navy Vice Adm. G. Dean Peters speaks during the christening ceremony. Lockheed Martin Corp.

“LCS is the

second largest ship class in the U.S. Navy, and Lockheed

Martin is proud to deliver capability and added force projection with each additional hull," said Joe DePietro, vice president and general manager of small combatants and ship systems for Lockheed.

Littoral combat ships are designed to complete close-to-shore missions and are a growing part of the Navy's fleet. With 40 percent of its hull easily reconfigurable, an LCS can be modified to integrate capabilities such as over-the-horizon missiles, advanced electronic warfare systems and decoys and, in the future, vertical launching systems or laser weapon systems.

An LCS is fast, as it is capable of speeds in excess of 40 knots. The ships are lethal as well, as all are equipped with Rolling Airframe Missiles (RAM) and a Mark 110 gun, which is capable of firing 220 rounds per minute.

Lockheed Martin is in full-rate production and has delivered eight LCS to the U.S. Navy. There are eight others in various stages of production and testing. This year, Lockheed and Fincantieri Marinette Marine will begin construction on two ships, deliver two ships, complete sea trials for two ships and see three ships commissioned (LCS 13, 15 and 17).

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# World War II-Era Mines Cleared During BALTOPS 2019



A British 1,000-pound, World War II-era mine detonates in the Baltic Sea after being discovered by the BALTOPS 2019 Mine Warfare Task Group and being rigged for detonation by a team of Norwegian explosive ordnancemen. U.S. Navy/Chief Mass Communication Specialist Shannon E. Renfro

TODENDORF, Germany – German, Norwegian, Danish and U.S. Navy Sailors from the Baltic Operations (BALTOPS) exercise Mine Warfare Task Group came together to clear three World War II-era air-laid mines in the Baltic Sea on June 14, the Naval Surface and Mine Warfighting Development Center said in a release.

During complex mine warfare training to increase combined force integration and maritime capability among 11 nations, the task group identified three historical mines on the sea floor. The team detonated the mines after receiving approval from German authorities to increase safety and reduce risk to mariners operating in German territorial waters.

“This is an excellent example of the valuable training we gain from exercises like BALTOPS,” said U.S. Navy Rear Adm. Scott Robertson, commander of the BALTOPS 2019 Mine Warfare Task Group and commander of Naval Surface and Mine Warfighting Development Center.



An unexploded Mark I-VI mine lays at the bottom of the Baltic Sea. The mine was detected and classified by the Royal Norwegian Navy minesweeper HMNoS Otra (M351) and reacquired and identified by Royal Danish Navy divers as part of BALTOPS 2019 Mine Warfare Task Group. U.S. Navy via Royal Danish Navy “Working together with our professional partners from Denmark and Norway to clear these undetonated, historical mines provides hands-on training and increases safety to mariners in the region by clearing hazardous material from the Baltic Sea. There is a good chance we will find more of these mines as the exercise continues, and it’s reassuring to know our international task group has the training and expertise necessary to safely dispose of them,” Robertson emphasized.

A team of mine warfare professionals aboard the Norwegian Alta-class MS HMNoS Otra (M351) detected and classified two mines, which were reacquired and identified by a team of Danish divers. Members of a Norwegian dive team discovered the third mine in another Mine Warfare Task Group’s training area off the coast of the Bundeswehr Military Training Area in Todendorf, Germany.

“German authorities willingly support the reduction of threat to navigation and shipping,” said Bundeswehr Personnel Exchange Program Officer Fregattenkapitaen Stefan Oeggel, who is assigned to the U.S. Navy’s Mine Countermeasures Division 31 and serves as a liaison for the Mine Warfare Task Group and Germany.

“Even after 75 years, explosives like these are dangerous, and we are happy to have the mines cleared as part of the exercise.”

Each of the cleared mines were World War II-era British air-laid, bottom mines (A Mk I–VI), each roughly 1,000 pounds.

“This has been a tremendous opportunity to continue to work with partner and allied forces that we frequently engage with throughout the region,” said U.S. Navy Cmdr. Jeff Demarco, commanding officer of Explosive Ordnance Disposal Mobile Unit 8 based in Rota, Spain, which serves as the Undersea Mine Countermeasures Commander within the BALTOPS Mine Warfare Task Group.

“Working with the Norwegian, Danish and Belgium clearance diving and AUV teams during training exercises is critical to our ability to maintain sea control in a complex theater.”

Nations participating in the BALTOPS 2019 Mine Warfare Task Group include Latvia, Lithuania, Poland, Denmark, Belgium, Germany, the Netherlands, Norway, the United Kingdom, France and the United States.

Nations participating in BALTOPS 2019 include Belgium, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Turkey, the United Kingdom and the United States.

BALTOPS is an opportunity to promote partnerships, presence, and professionalism through an unambiguous display of strength in the Baltic

region.

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# U.S. Coast Guard Announces Homeport of Polar Security Cutter



An artist's rendering of the new polar security cutter, which the U.S. Coast Guard announced will be homeported in Seattle. VT Halter Marine Inc.

WASHINGTON – The U.S. Coast Guard announced that Seattle will be the home of the service's new polar security cutters.

"The Pacific Northwest has been the home of our icebreaking fleet since 1976, and I am confident that the Seattle area will continue to provide the support we need to carry out our critical operations in the polar regions," Coast Guard Commandant Adm. Karl L. Schultz said.

The Coast Guard is the nation's lead agency responsible for providing assured surface access in the polar regions. The addition of the polar security cutters in Seattle will support the United States' ability to conduct national missions, respond to critical events and project American presence in the high latitudes.

The Coast Guard conducted a detailed analysis to identify locations that could accommodate the polar security cutter. Based on operational and logistical needs, Seattle was determined to be the appropriate homeport for the first three PSCs.

In April 2019, VT Halter Marine Inc. of Pascagoula, Mississippi, was awarded a contract for the detail design and construction of the PSC class.

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## **BAE Systems Joins Boeing's MQ-25 Industry Team**



Boeing Co. conducts a MQ-25 deck-handling demonstration at its facility in St. Louis, Missouri. U.S. Navy via Boeing Co. NASHUA, N.H.

– BAE Systems has been awarded contracts by Boeing Co. to supply the Vehicle Management Control System (VMCS) and Identification Friend or Foe (IFF) System for the MQ-25 unmanned aerial vehicle, BAE said in a release.

“BAE Systems leads the industry in high-integrity fly-by-wire and mission-critical IFF technologies,” said Corin Beck, director of military aircraft systems at BAE Systems. “Our relationship with Boeing started more than four decades ago and has resulted in aircraft that have some of the most advanced



avionics and  
reduced size transponders in the world.”

*“The MQ-25 program is vital because it will help the U.S. Navy extend the range of the carrier air wing, and Boeing and our industry team is all-in on delivering this capability.”*

*Dave Bujold, Boeing Co. MQ-25 program director*

The VMCS  
will control all flight surfaces and perform overall vehicle  
management duties  
for the MQ-25. The IFF product ensures operation in contested  
environments by  
reliably identifying both coalition and enemy vehicles.

The MQ-25 will be the U.S. Navy’s first operational carrier-based unmanned aircraft and is designed to provide a much-needed refueling capability. The contract supports Boeing’s engineering and manufacturing development program to provide four MQ-25 aircraft to the Navy for Initial Operational Capability by 2024.

<https://www.youtube.com/watch?v=KZXVnlWhPSM>

“The MQ-25 program is vital because it will help the U.S. Navy extend the range of the carrier air wing, and Boeing and our industry team is all-in on delivering this capability,” said Dave Bujold, Boeing’s MQ-25 program director. “The work we’re doing is also foundational for the future of Boeing – where we’re building autonomous systems from seabed to space.”

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# Central Command Releases Timeline of Mine Attack in Gulf of Oman



An unclassified slide provided by U.S. Central Command shows the damage from a June 13 explosion and a likely limpet mine on the hull of the M/V Kokuka Courageous in the Gulf of Oman. ARLINGTON, Va. – The U.S. Central Command has published a timeline of the June 13 attacks on two commercial tankers in the Gulf of Oman.

The two motor tankers, the Norway-flagged M/T Altair and the Japan-flagged M/T Kokuka Courageous, were apparently damaged by limpet mines placed on their hulls. Ships and P-8 aircraft of the U.S. 5th Fleet responded to the incidents to render assistance and to investigate who launched the attacks.

Secretary of State Michael

Pompeo later blamed Iran for the attacks, according to a June 13 report in Politico. “These attacks are a threat to international peace and security, a blatant assault on the freedom of navigation and an unacceptable escalation of tension by Iran,” he is quoted as saying by the Politico report.

Video recorded by a U.S. aircraft of an Iranian Gashti-class patrol boat and crew removing an unexploded limpet mine from the M/T Kokuka Courageous.

Pompeo said his assessment

was based “on intelligence, the weapons used, the level of expertise needed to

execute the operation, recent similar Iranian attacks on shipping and the fact that no proxy group operating in the area has the resources and proficiency to act with such a high degree of sophistication," Politico reported.

The incidents followed covert attacks on May 12 on four tankers in the waters of the United Arab Emirates, apparently also with limpet mines.

The following is a timeline of the June 13 attacks provided by Capt. Bill Urban of U.S. Central Command public affairs:

- U.S. Naval forces in the region received two separate distress calls at 6:12 a.m. local time from the Altair and a second one at 7 a.m. from Kokuka Courageous.
- Both vessels were in international waters in the Gulf of Oman about 10 nautical miles apart at the time of the distress calls. USS Bainbridge was about 40 nautical miles away from Altair at the time of the attack and immediately began closing the distance.
- At 8:09 a.m., a U.S. aircraft observed an Iranian Islamic Revolutionary Guard Corps Hendijan-class patrol boat and multiple IRGC fast attack craft/fast inshore attack craft (FAC/FIAC) in the vicinity of Altair.
- At 9:12 a.m., a U.S. aircraft observed the FAC/FIAC pull a raft from the Altair from the water.
- At 9:26 a.m., the Iranians requested that the motor

vessel Hyundai

Dubai, which had rescued the sailors from the Altair, turn the crew over to the Iranian FIACs. The Hyundai Dubai complied with the request and transferred the crew of the Altair to the Iranian FIACs.

- At 11:05 a.m. local time, USS Bainbridge approached the Dutch tug Coastal Ace, which had rescued the crew of 21 sailors from the Kokuka Courageous who had abandoned their ship after discovering a probable unexploded limpet mine on their hull following an initial explosion.
- While the Iranian Hendijan patrol boat appeared to attempt to get to the tug Coastal Ace before Bainbridge, the mariners were rescued by Bainbridge at the request of the master of the Kokuka Courageous. The rescued sailors are currently aboard Bainbridge.
- At 4:10 p.m., an IRGC Gashti-class patrol boat approached the Kokuka Courageous and was observed and recorded removing the unexploded limpet mine from the Kokuka Courageous.

"The U.S. and our partners in the region will take all necessary measures to defend ourselves and our interests," Urban said.

"Today's attacks are a clear threat to international freedom of navigation and freedom of commerce. The U.S. and the international community stand ready to defend our interests, including the freedom of navigation. The United States has no interest in engaging in a new conflict in the Middle

East. However, we  
will defend our interests.”

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# Bainbridge Answers Distress Call



Sailors aboard the Arleigh Burke-class guided-missile destroyer USS Bainbridge (DDG 96) render aid to the crew of the M/V Kokuka Courageous. Bainbridge is deployed to the U.S. 5th Fleet areas of operations in support of naval operations to ensure maritime stability and security in the Central Region, connecting the Mediterranean and Pacific through the western Indian Ocean and three strategic choke points. U.S. NAVY / Mass Communication Specialist 3rd Class Jason Waite GULF OF OMAN (NNS) – The Arleigh Burke-class guided-missile destroyer USS Bainbridge (DDG 96) responded to a distress call from the M/V Kokuka Courageous in the Gulf of Oman the morning of June 13.

The Bainbridge received a call from the Kokuka Courageous crew advising that their ship was in distress approximately 30 nautical miles from Bainbridge’s location.

“This is what we’re out here for,” said Cmdr. M. Kathryn Devine, commanding officer of Bainbridge. “Our mission is to ensure maritime safety and to answer the call for aid when we can.”

All 21 crew members of the Kokuka Courageous had evacuated to a tug boat and were transferred to the Bainbridge. One of the

Kokuka Courageous sailors suffered burns on his hands and was treated immediately by the Bainbridge medical team.

Once safely aboard Bainbridge, the Kokuka Courageous crew received medical check-ups, showers and clean clothes along with food and any other attention they required.

“I’m very proud of my crew and their quick response to the situation,” said Devine. “They’ve done an incredible job of making sure the crew of the tanker was safely brought aboard and taken care of.”

Bainbridge is underway as part of Abraham Lincoln Carrier Strike Group’s (ABECSG) deployment in support of maritime security cooperation efforts in U.S. 5th, 6th and 7th Fleet areas of operations.

With Abraham Lincoln as the flagship, deploying strike group assets include staffs, ships and aircraft of Carrier Strike Group 12 (CSG 12), Destroyer Squadron 2 (DESRON 2), USS Leyte Gulf (CG 55) and Carrier Air Wing 7 (CVW 7).

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## Corps Begins Fielding Mobile

# Satellite System

# Communication



U.S. Marine Corps Cpl. Frankie Garcia calls for a radio check using a PRC-117G at Marine Corps Base Camp Pendleton, California. U.S. Marine Corps/Lance Cpl. Jason Monty  
MARINE CORPS BASE QUANTICO, Va. – The U.S. Marine Corps recently began fielding a next-generation narrowband satellite communication system that assists warfighters in connecting to networks on the battlefield, Marine Corps Systems Command (MCSC) said in a June 12 release.

Fielded in the first quarter of 2019, the Mobile User Objective System provides satellite communication capabilities to mobile or stationary Marines. The system enables the warfighter to leverage cellular technology to increase access to voice and data communication while using the MUOS network.

“MUOS is another way for warfighters to communicate in a tactical environment,” said Eddie Young, project officer of Multiband Radio II Family of Systems at MCSC. “The system brings [satellite communications] capabilities in various formats to Marines.”

The MUOS capability encompasses updated firmware to the AN/PRC-117G radio system and one of three antenna kits. The antennas help Marines simultaneously access satellite networks and gives them secure and nonsecure internet access.

MUOS also improves overall reliability in urban environments, challenging vegetation and other arduous conditions.

*"MUOS is another way for warfighters to communicate in a tactical environment. The system brings [satellite communications] capabilities in various formats to Marines."*

*Eddie Young, project officer, Multiband Radio II Family of Systems,  
Marine Corps Systems Command*

"MUOS is essentially software and an antenna capability augmenting existing hardware," said Noah Slemph, systems engineer at MCSC. "It's similar to adding an application to a cellphone."

The first service to widely employ MUOS, the Corps is deploying thousands of antenna kits for the AN/PRC-117G radio system and hundreds of diplexers that enable vehicular systems to access MUOS satellites.

"The Marine Corps is leading all services in terms of getting MUOS to warfighters," Young said.

Satellite communication has become increasingly important for the Corps in the 21st century. According to the Department of Defense, more than 50 percent of DoD satellite communication involves narrowband communication. Yet, this form of



communication accounts for less than 2 percent of the DoD's bandwidth, making it an efficient way to transmit information.

MUOS is particularly important because the satellite communications infrastructure of the legacy system is nearing its expiration, Slemple said. As a result, the Corps intends to incrementally replace the older capabilities with the MUOS waveform, enabling more Marines to access ultra-high frequency tactical satellite communications.

Prior to fielding MUOS, MCSC had to demonstrate to the Milestone Decision Authority that the system was safe, met technical performance and was ready for use by the warfighter. Since MUOS's Field User Evaluation in 2017, Marines have raved about the benefits of the system.

"Our Marines find MUOS useful in completing their missions," Young said. "We've received a lot of positive feedback thus far."

The efforts of Young's team in getting the system out to the warfighter have not gone unnoticed. In May 2018, at a Narrowband Working Group conference in Colorado Springs, Colorado, the Joint Staff J6 and the DoD Chief Information Officer recognized Young and Slemple for leading the services in employing MUOS.

The J6 and DoD

CIO also emphasized the joint effort between the Multiband Radio II team and the Naval Information Warfare Center in using the Multiple Reconfigurable Training Systems, an interactive training aid that will be used to assist in the rapid fielding of MUOS.

“It was motivating to see that we were recognized for our efforts, because the team had put in a considerable amount of time and effort to make this happen,” Young said. “We recognize the warfighter needs this capability, and we’ve done everything we can to get it to them in a timely manner.”

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## **U.S. Department of Transportation Launches Port Infrastructure Development Program**

WASHINGTON

– The U.S. Department of Transportation (DOT) posted a Notice of Funding Opportunity (NOFO) to apply for \$292.7 million in discretionary grant funding through the new Port Infrastructure Development Program, the department said in

a June 12 release.

“This major investment in the Port Infrastructure Development Program will help strengthen, modernize, and improve our country’s maritime systems and gateway ports,” said U.S. Transportation Secretary Elaine L. Chao.

As the administration continues to invest in America’s infrastructure, this new program aims to support public coastal ports by improving the safety, efficiency, or reliability of goods movement into, out of, or within a port, according to the release.

Investments in port transportation infrastructure will be awarded on a competitive basis for projects located either within the boundary of a coastal seaport, or outside the boundary of a coastal seaport, and directly relate to port operations or to an intermodal connection to a port.

The department will evaluate projects using criteria which include leveraging federal funds, project costs and benefits, project outcomes, project readiness, and domestic preference. The department will also consider geographic diversity when selecting grant recipients.

The Consolidated Appropriations Act of 2019 made available \$292.7 million for the

Port Infrastructure Development Program, including \$92.7 million for the 15 coastal seaports that handled the greatest number of loaded foreign and domestic twenty-foot equivalent units of containerized cargo in 2016, as identified by the U.S. Army Corps of Engineers. The minimum award size is \$10 million, with a federal cost share not to exceed 80%.

Additionally, the Department anticipates awarding funding to at least one project that advances each of the following project outcomes:

- Advance technology supported safety, design efficiency improvements.
- Improve state of good repair and resiliency.
- Promote efficient energy trade.
- Promote manufacturing, agriculture or other forms of exports.
- For only the top 15 coastal ports, a project that supports the safe flow of agricultural and food products, free of pests and disease, domestically and internationally.

To provide technical assistance, DOT will host a series of webinars during the Port Infrastructure Development Program grant application process. Details and registration information regarding these webinars will be made available at

[www.transportation.gov/portgrants](http://www.transportation.gov/portgrants).

The  
deadline to submit an application for the Port Infrastructure  
Development  
Program is 8 p.m. EDT Sept. 22, 2019.

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## Coast Guard Cutter Dauntless Returns from 58-Day Patrol



The crew of Coast Guard Cutter Dauntless returned to their homeport in Pensacola, Florida, June 12 after a 58-day patrol in the Gulf of Mexico. U.S. COAST GUARD.

PENSACOLA,

Fla. – The crew of Coast Guard Cutter Dauntless returned to their homeport in

Pensacola, Florida, June 12 after a 58-day patrol in the Gulf of Mexico, the

Coast Guard 8th District said in a release of the same date.

During its

two-month patrol, the cutter supported several 8th Coast Guard District mission

areas, including search and rescue, enforcement of domestic living marine

resource regulations and illegal, unreported, and unregulated fishing activity

near the U.S. and Mexico maritime border.

The crew

deterred three Mexican vessels caught illegally fishing in U.S. waters and

recovered three miles of long line fishing gear, preventing the illegal harvesting of red snapper and other regulated Gulf of Mexico fish species.

They also conducted five safety boardings of U.S. flagged commercial fishing vessels to ensure the proper safety equipment was onboard and crewmembers were properly trained in safe seamanship practices.

The crew's employment in south Texas waters supported Operation Patriot Curtain, which addressed threats to border security and U.S. sovereignty near the maritime boundary line.

During the patrol, the crew collaborated with the Mexican Naval Warship Arm Independencia to share operational best practices. This beneficial exchange allowed the Dauntless crew to demonstrate effective interoperability with a key international maritime partner while conducting a shared mission of combating transnational threats.

The crew stopped in Galveston, Texas, the ship's homeport from 1995 to 2018, and hosted over 400 tours for the Galveston community. The ship was honored by the city council with a proclamation declaring May 15th, "Sin Miedo" Day in honor of Dauntless's motto, "Sin Miedo," meaning, "Without

Fear.”