

Corps Committed to National Defense Strategy While Continuing to Fill Traditional Missions, Commandant Tells Defense Forum



WASHINGTON – Although the Marine Corps is responding to the National Defense Strategy’s focus on preparing for the return to great power competition, “we still have to operate across the full range of military operations,” the Marines’ top officer said March 13.

While the potential risk from a major regional fight against a peer competitor is high, it’s hard to say what is the probability of that occurring, Marine Corps Commandant Gen. Robert B. Neller said.

“How much of your force do you focus on that? How much of your force do you focus on the day-to-day capacity” for missions such as humanitarian assistance, disaster relief, crisis response, Neller asked rhetorically.

In addition to explaining the major changes in training the Corps is making to prepare for a possible high-end conflict against a great power rival, Neller noted that the counter-insurgency, counter-terrorism fights the Marines have been waging for 18 years “is still going to go on.” The “physical caliphate” created by the ISIS extremist in Iraq and Syria may be about to be eliminated, “but ISIS is not going to go away.”

“Ninety percent of what we do will not be against peer competitors, it will be against somebody else,” Neller told the audience at the McAleese/Credit Suisse defense forum.

Working from that conclusion, Neller made a strong argument for the amphibious force, which he said was “the capability that allows you to do 80 to 90 percent of everything you do day to day,” to get where needed, to do exercises with allies and friends, to establish strong presence and to go ashore if needed without worrying about sovereignty issues.

With a strong amphibious fleet “you can operate across nearly 90 percent of the range of military operations,” up to a high-end conflict. “At the end of the day, it gives the nation one of two forcible entry capabilities,” he said. The other being an Army airborne assault.

“I think the value it brings to the nation is incredibly important.”

The question then is how many amphibious ships are needed, what capabilities they have, and that debate is going on, Neller added.

Asked his reaction to the fact that the Navy’s requested fiscal 2020 shipbuilding budget, which would buy 12 ships, does not contain any amphibs and there are only three in the five-year budget plan that seeks 51 ships, Neller said: “We know we have to compete against other capabilities.”

He said the Marines would have liked to have the first amphibious transport dock (LPD) Flight II, which will replace the aged and low-capability dock landing ships, moved forward. The LPD is planned for fiscal 2021. Neller said he would “make my case as best I can” to the House Armed Services Seapower and

Projection Forces subcommittee chairman, U.S. Rep. Joe Courtney (D-Conn.), and the subcommittee’s ranking member,

U.S. Rep. Rob Wittman (R-Va.).

The budget plan also delays the next amphibious assault ship, LHA-9, until 2024, despite concerns from the amphibious shipbuilding industry that the delay would make it difficult to maintain skilled workers and suppliers.

Asked in a separate session with reporters about the low priority for amphibians, Chief of Naval Operations Adm. John M. Richardson said the shipbuilding budget reflected “warfighting priorities.” And he said the LHA-9 “is good where it is.”

Neller described in considerable detail what the Marines are doing to prepare for a potential high-end fight, including developing capabilities to engage in information warfare, offensive and defensive cyber, training to operate in an information-denied environment and conducting intense force-on-force exercises. The Corps also is seeking better long-range, precision-fire weapons, air and missile defenses and the capability to help the Navy fight for sea control against a peer adversary.

He also said he did not ask for an increase in personnel because “I want to be able to train the Marines I have” and did not want to grow the force during a time of rising budgets and then “have people who don’t have the gear they need” if funding was cut.

**CNO Richardson: Technology
Agility a ‘Strategic**

Achilles' Heel'

WASHINGTON – The Navy's top officer said that he is concerned about the agility of the Navy to outpace its potential adversaries in the current era of great power competition.

"This is a strategic Achilles' heel for us," Chief of Naval Operations Adm. John M. Richardson said March 13, speaking at the McAleese Defense Programs Conference in Washington. "We are just not moving capability forward to the hands of our sailors as fast as we need to."

"I worry sometimes that we say, this conflict is going to go OK because our sailors are better trained than their sailors," Richardson said. "That margin is too close for me. But when I'm relying on the quality [of our sailors], it's true, but when I'm relying on the quality of our training, that's far too close a margin."

"Or we say, 'Hey, we're mechanically a more innovative people' – that may be true," he said, noting that still is too close a margin.

"Part of this is to make sure that our worst pilot can beat their best pilot because we put him or her in an aircraft that is just that vastly superior," Richardson said. "We don't send our teams into a fair fight."

"We've got to get that capability moving faster," he said. "We've done a lot in our budget to try to accelerate these things. We've got about \$1.3 billion in what we call accelerated acquisition programs."

As examples, Richardson listed some accelerated programs such as high-power lasers (including one being installed on a ship this year); unmanned systems such as the MQ-25 unmanned aerial refueling aircraft; new family unmanned underwater and surface vehicles; Conventional Prompt Strike; the Digital Warfare

Office; and live virtual constructive training.

Wittman: Third SSN in Budget Helps Reduce Risk for Columbia SSBN



WASHINGTON – The addition of a third Virginia-class attack submarine (SSN) in the proposed 2020 defense budget is a long-sought goal of the leaders of the Seapower and Projection Forces subcommittee of the House Armed Services Committee. If approved, the third SSN would help with the construction of the Columbia-class ballistic-missile submarine, a congressman claimed.

“Chairman Joe Courtney [D-Conn.] and I were pretty adamant with [then-Defense] Secretary Mattis and said, ‘Listen, we need to add another Virginia-class submarine as we’re transitioning into Columbia class,’ ” said U.S. Rep. Rob Wittman (R-Va.), speaking March 13 at the McAleese Defense Programs Conference in Washington. “It does two things: it gives us an additional submarine and gets us hopefully above the 42 number [the low in 2028 before the number increases toward 66] and, if you do that in combination with taking existing nuclear plants that we can replace into some of the 688[-class] submarines [Los Angeles-class SSNs], we can get close to 50 [SSNs] when it’s all said and done.

“But it also helps us to de-risk Columbia,” Wittman said. “It lets us put work force into place that develops the knowledge, skills and abilities to transition directly over from building a third Virginia-class submarine to building the Columbia

class. As we know with new boats in these programs – we watched it with Virginia class and others – the learning curve is steep, where all the risk is embedded in the early side. When you look at welds and all the things that happen with these ships, we want to make sure we de-risk that.

Courtney, who also spoke at the conference, noted that the effort to include the third SSN in the 2019 budget failed, but also noted that, with the administration now supporting the third SSN in the 2020 budget, “even though we lost the battle [in 2019], we won the war.”

On another topic, the Navy’s plan to cancel the Refueling and Comprehensive Overhaul (RCOH) of the aircraft carrier USS Harry S. Truman was met with concern from both Courtney and Wittman. The Truman is 23 years old, and its service life could be extended to 50 years with the RCOH, as has been done with the oldest half of the 10 Nimitz-class carriers to date.

Courtney, who pointed out that the Navy already has purchased the nuclear reactors for the Truman, said the plan to cancel the RCOH “doesn’t make any business sense to me.”

Wittman, noting that the move would drop the aircraft carrier force level to 10 ships, said: “I would argue that it is not wise.”

Aircraft carriers “are still extraordinarily critical elements of sea power, projecting power forward,” Wittman said.

Navy Requests \$205.9 Billion

Fiscal 2020 Budget



The Department of the Navy (DoN) is requesting \$205.6 billion for fiscal 2020 – \$159.7 billion for the Navy and \$45.9 billion for the Marine Corps. The 2020 request represents a significant increase over the fiscal 2019 budget of \$196.1 billion.

The Navy's base 2020 request is 29 percent of the overall Defense Department base request of \$545 billion. The total DoD request of \$718 billion includes the \$545 billion plus Overseas Contingency Operations funding of \$164 billion and \$9 billion for emergency funding for activities such as hurricane relief. The DoN's OCO funding of \$44.7 is included in the DoN's budget total.

The DoN's \$205.6 billion request includes \$52 billion for military personnel; \$68.5 billion for operations and maintenance; \$61 billion for procurement; \$20 billion for research, development, test and evaluation (RDT&E); \$3.1 billion for military construction; and \$366 million for family housing.

"This [budget] fields a formidable force in all domains of operations," said Rear Adm. Randy B. Crites, deputy assistant secretary of the Navy for budget, briefing reporters March 12 at the Pentagon.

The end-strength of active-component Navy personnel is planned to rise to 340,500, an increase of 5,100 over 2019. Reserve personnel are planned to decrease slightly by 100 to 59,000. DoN civilian manpower is slated to grow, from 214,284 to 217,476.

During 2020, 10 ships are planned for delivery: four Arleigh Burke-class guided-missile destroyers (DDGs); three Virginia-class attack submarines (SSNs); two littoral combat ships

(LCSs); and one Spearhead-class expeditionary fast transport (T-EPF). Also during the year, the Navy plans to retire two Los Angeles-class SSNs and three Avenger-class mine countermeasures ships. The battle force strength will grow by five ships to 301 in 2020.

The Navy has budgeted \$23.8 billion for shipbuilding and conversion, the largest amount requested in 20 years, although, because in 2019 Congress added three ships in the 2019 budget, the 2019 total was larger at \$24.2 billion. The 2020 budget requests funds for 12 ships: the third Gerald R. Ford-class aircraft carrier, the future USS Enterprise; three Virginia-class SSNs, two of which will be equipped with the Virginia Payload Module; three Flight III Arleigh Burke-class DDGs; one FFG(X) frigate, the lead ship of its class; two John Lewis-class fleet replenishment oilers (T-AO); and two towing, salvage and rescue ships.

For the Columbia-class ballistic-missile submarine, the Navy has requested \$533 million in RDT&E funds. Construction of the first Columbia-class hull is planned for 2021.

The Navy expects to save \$254 million (\$2.5 billion over five years) from divestment of the planned service-life extension of Ticonderoga-class cruisers.

Also requested in the shipbuilding account are the construction of four LCU 1700 utility landing craft and the refueling and comprehensive overhaul of one Nimitz-class aircraft carrier. The Navy is gapping for a year the procurement of the LCAC 100 class of ship-to-shore connectors as that program is restructured.

The Navy is requesting the cancellation of the future RCOH – scheduled to begin in 2024 – for the aircraft carrier USS Harry S. Truman with plans to retire the ship early and use the funds towards other programs. the procurement of Ford-class carriers. The Navy's official budget document said the

adjustment is made to balance the fleet's high-end platforms with "a greater number of complementary, more affordable, potentially attritable options."

The Navy plans to fund two large unmanned surface vessels (LUSVs) with \$373 million in RDT&E funds and begin experimenting with them to develop such vessels with an offensive missile capability. Transition to procurement is expected to begin in 2021.

The Navy requests \$18.6 billion in 2020 for 148 aircraft for the Navy and Marine Corps. The fixed-wing aircraft include 10 F-35B and 10 F-35C Lightning II strike fighters for the Marine Corps and 10 F-35Cs for the Navy; 24 F/A-18E/F Super Hornet strike fighters; four E-2D Advanced Hawkeye early warning aircraft; six P-8A Poseidon maritime patrol aircraft; three KC-130J Super Hercules for the Marine

Corps; and 22 ex-Swiss Air Force F-5 adversary aircraft, 11 each for the Navy and Marine Corps to recapitalize the older F-5 inventory.

Rotary-wing and tiltrotor aircraft requested in the budget include six CH-53K King Stallion heavy-lift helicopters and six VH-92A presidential transport helicopters for the Marine Corps; 38 helicopters of a design yet to be selected to replace TH-57 training helicopters; and 10 CMV-22B Osprey carrier-onboard-delivery aircraft for the Navy. Deliveries of more MV-22B Ospreys for the Marine Corps is gapped for 2020.

Large unmanned aircraft requested include two MQ-4C Tritons for the Navy and three MQ-9 Reaper medium-range UAVs, the first of this type for the Marine Corps.

Coast Guard Interdicts 26 Cuban Migrants 48 Miles Southeast of Long Key



LONG KEY, Fla. – The U.S. Coast Guard interdicted 26 migrants 48 miles southeast of Long Key attempting to illegally enter the United States, the Coast Guard 7th District said in a March 12 release.

Coast Guard Sector Key West watch-standers received a notification from a good Samaritan boat reporting a 30-foot disabled wooden sail vessel with 26 passengers aboard waving their arms.

A U.S. Navy ship that was conducting maritime operations in the area assisted the vessel in distress. The crew of the Arleigh Burke-class guided-missile destroyer USS James E. Williams (DDG 95) arrived on scene and safely transferred the 26 Cuban migrants to the Coast Guard Cutter Charles Sexton crew (WPC-1108).

“Illegal migrant ventures on unsafe and ill-equipped vessels are not only against the law but incredibly dangerous,” said Capt. Jason Ryan, chief of enforcement for the Coast Guard’s 7th District in Miami. “It is fortunate that the vessel did not capsize or end in tragedy, as we have seen all too recently in the Florida straits, and we are grateful for the assistance by the good Samaritan and the U.S. Navy in this case.”

One of the migrants was transferred to U.S. Customs and Border Patrol for further investigation and possible prosecution. The remaining 25 migrants were repatriated to Cuba on March 12 by the Coast Guard Cutter Kathleen Moore (WPC-1109).

The Charles Sexton and Kathleen Moore are 154-foot fast

response cutters homeported in Key West, Fla.

Coast Guard Icebreaker Returns Home Following 105-Day Antarctic Trip



SEATTLE – The 150-member crew of the U.S. Coast Guard Cutter Polar Star returned March 11 to their homeport of Seattle following a 105-day deployment to Antarctica in support of Operation Deep Freeze, the Coast Guard Pacific Area said in a release.

Deep Freeze is an annual joint military service mission in support of the National Science Foundation, the lead agency for the United States Antarctic Program. Since 1955, the U.S. Department of Defense and the U.S. Coast Guard have assisted in providing air and maritime support throughout the Antarctic continent.

This year marks the 63rd iteration of the annual operation. The Polar Star crew left Seattle on Nov. 27 for their sixth deployment in as many years and traveled 11,200 nautical miles to Antarctica.

Upon arrival in McMurdo Sound, Antarctica, the Polar Star broke through 16.5 nautical miles of ice, 6 to 10 feet thick, to open a channel to the pier at McMurdo Station. Once the channel was open, the crew refueled Polar Star at McMurdo Station, the United States' main logistics hub in Antarctica. After a three-day port visit to McMurdo, the ship provided a six-hour familiarization cruise to 156 McMurdo station

personnel.

On Jan. 30, Polar Star escorted the containership Ocean Giant through the channel, enabling a 10-day offload of 499 containers with 10 million pounds of goods that will resupply McMurdo Station, Amundsen-Scott South Pole Station and other U.S. field camps for the coming year. The Ocean Giant is an ice strengthened vessel contracted by the U.S. Navy's Military Sealift Command for Operation Deep Freeze.

As in years past, getting the 43-year-old Polar Star to Antarctica was accomplished despite a series of engineering casualties aboard the ship. Commissioned in 1976, the cutter is operating beyond its expected 30-year service life. It is scheduled for a service life extension project starting in 2021.

During the transit to Antarctica, one of the ship's electrical systems began to smoke, causing damage to wiring in an electrical switchboard, and one of the ship's two evaporators used to make drinkable water failed. The electrical switchboard was repaired by the crew, and the ship's evaporator was repaired after parts were received during a port call in Wellington, New Zealand.

The impact from ice operations ruptured the cutter's centerline shaft seal, allowing water to flood into the ship. Icebreaking operations ceased so embarked Coast Guard and Navy divers could enter the water to apply a patch outside the hull so Polar Star's engineers could repair the seal from inside the ship. The engineers donned dry suits and diver's gloves to enter the 30-degree water of the still slowly flooding bilge to make the vital repairs. They used special tools fabricated onboard to fix the leaking shaft seal and resume icebreaking operations.

The Polar Star also experienced shipwide power outages while breaking ice in McMurdo Sound. Crew members spent nine hours

shutting down the ship's power plant and rebooting the electrical system to recover from the outages.

On Feb. 10, the crew spent nearly two hours extinguishing a fire in the ship's incinerator room while the ship was about 650 nautical miles north of McMurdo Sound. The fire damaged the incinerator and some electrical wiring in the room was damaged by firefighting water. There were no injuries or damage to equipment outside the space. Repairs to the incinerator are already scheduled for Polar Star's upcoming in-port maintenance period.

Presently, the U.S. Coast Guard maintains two icebreakers – the Coast Guard Cutter Healy, which is a medium icebreaker, and the Polar Star, the United States' only heavy icebreaker. If a catastrophic event, such as getting stuck in the ice, were to happen to the Healy in the Arctic or to the Polar Star near Antarctica, the U.S. Coast Guard is left without a self-rescue capability.

By contrast, Russia operates more than 50 icebreakers – several of which are nuclear powered.

Reserved for Operation Deep Freeze each year, the Polar Star spends the Southern Hemisphere summer breaking ice near Antarctica, and when the mission is complete, the ship returns annually to dry dock to complete critical maintenance and repairs in preparation for the next Operation Deep Freeze mission. Once out of dry dock, the ship returns to Antarctica, and the cycle repeats.

The Coast Guard has been the sole provider of the nation's polar icebreaking capability since 1965 and is seeking to increase its icebreaking fleet with six new polar icebreakers to ensure continued national presence and access to the Polar Regions.

In the fiscal year 2019 budget, Congress appropriated \$655 million to begin construction of a new polar security cutter

this year, with another \$20 million appropriated for long-lead-time materials to build a second cutter.

In response to the demands of the region, the service is set to release an updated version of its Arctic Strategy, which Coast Guard Commandant Adm. Karl Schultz is scheduled to discuss March 21 during his annual State of the Coast Guard address.

Coast Guard, Local Agencies Rescue 46 from Ice Floe in Western Lake Erie



CLEVELAND, Ohio – The U.S. Coast Guard and local agencies rescued 46 ice fishermen from an ice floe that broke free near Catawaba Island in Lake Erie on March 9, the Coast Guard 9th District said in a release of the same date.

An additional estimated 100 people were able to self-rescue from the ice floe either by swimming or walking on ice bridges that were still connected to the floe.

At 8:13 a.m., Coast Guard Station Marblehead received notification from an Ohio Department of Natural Resources (ODNR) representative that there were approximately 100 people stranded on an ice floe and that there were an additional 30 to 40 people in the water. Coast Guard District 9 Command Center launched two 20-foot Special Purpose Craft–airboats from Station Marblehead, two MH-65 Dolphin helicopters from Air Station Detroit, and two MH-60 Jayhawk helicopters from Air Station Traverse City to respond for a mass rescue.

Catawaba Island Fire, Put-in-Bay Fire and Southshore Towing also responded with airboats, while ODNR, North Central Emergency Medical Services and Danbury EMS assisted in the search-and-rescue efforts.

Coast Guard Station Marblehead arrived on scene at approximately 8:50 a.m. and there were no persons in the water. Those who had fallen in or intentionally entered the water to try to swim to land were all back on the ice or land.

Approximately 100 people were able to walk to shore via portions of ice that were still unbroken; however, as the temperature continued to rise, the ice broke into multiple separate ice floes. The remaining fishermen were rescued by the airboat crews and helicopter crews.

By approximately 11:15 a.m., all persons who had been stranded on the ice were rescued.

As temperatures begin to rise, the Coast Guard strongly urges people not to go out onto ice. Ice may look safe, but it is difficult to determine the thickness visually and the increase in warm weather will continue to melt and weaken the ice.

Surge Sealift Force in Need of Urgent Recapitalization, Officials Say



CHUK SAMET, Thailand (Jan. 27, 2019) A Soldier attached to U.S. Army Pacific (USARPAC) directs a vehicle down the ramp of the Military Sealift Command chartered ship M/V Cape Hudson (T-AKR 5066) during an offload at Chuk Samet, Thailand, Jan.

24, 2019.

WASHINGTON – The nation’s seaborne logistics capability is atrophying and in need of rejuvenation, senior government officials said in testimony before Congress. Maintaining older ships is proving more costly than anticipated, driving officials to seek new or used ships to replace some in the current inventory.

Testifying March 7 before a joint hearing of the Seapower and Projections Forces subcommittee and Readiness subcommittee of the House Armed Service Committee were Army Gen. Steve Lyons, commander, U.S. Transportation Command, and retired Navy Rear Adm. Mark Buzby, administrator of the Maritime Administration (MARAD), a Department of Transportation agency that maintains the Ready Reserve Force (RRF), a fleet of sealift and specialized ships available on a reduced operational status for call up to service.

Of interest are the 46 ships of the RRF and the 15 sealift ships operated by the Military Sealift Command. The average age of the RRF ships is 44 years and are becoming increasingly difficult to maintain. Of the RRF ships, 21 are steam-powered, an obsolescent propulsion technology for which qualified mariners to operate it are decreasing in numbers.

Lyons noted that commercial ship companies look to retire ships at the 15-year mark to avoid the maintenance and repair costs of older ships.

He said the readiness of the 15 surge sealift roll-on/roll-off ships currently is only 65 percent.

“The need to recapitalize is urgent,” Lyons said. “I believe accelerating the used vessel purchases with the authority ... Congress provided in the last two years is the most practical way ahead.”

Buzby said the key to sustaining sealift capability is the “acquisition and conversion of used ships for the RRF,

beginning with the purchase of two vessels as authorized by the FY [fiscal year] '18 NDAA [National Defense Authorization Act].”

He said that in January the Navy, in coordination with U.S. Transportation Command, “provided MARAD with the desired characteristics for replacement ships to be acquired from the commercial market. MARAD then released a request for information to identify suitable ships, and responses are due back [on March 16].”

Buzby said that of the 50,000 large, oceangoing commercial vessels in the world, 181 sail under the U.S. flag, including 82 vessels operating exclusively in international trade and the remainder in domestic trade. He said that these commercial ships are critical to sustaining the employment base for mariners for the RRF. He also noted that of 82 U.S.-flag ships in international trade, MARAD’s Maritime Security Program helps sustain a fleet of 60 militarily useful ships with mariners fully qualified for sealift operations.

“I am deeply concerned about our ability to muster an adequate number of mariners to operate the sealift fleet for surge and sustainment operations during a mobilization lasting about six months,” Buzby said.

Buzby said the Navy is funding some service-life extensions (SLEPs) of MARAD ships, but “the pace of repair is outpacing the pace of service-life extension,” noting that many of the repairs involve structural steel repairs. “We’re not making any headway toward extending that service life.”

He said that the SLEPs for each ship cost from \$800,000 to \$3.5 million, and often three times what was budgeted.

Service-life extensions are not returning the investment that we thought,” Lyons said.

Buzby said that used ships vary in cost “from \$25 million,

maybe to \$60 million” depending on age “and a new ship is 26 times that.”

“If you look at the investments the Navy in the out-years, it’s very, very hard to compete a sealift new-build that is 26 times as expensive as an acquired used [ship] solution,” Lyons said.

New or used roll-on/roll-off ships are the primary recapitalization requirement for sealift, Buzby said.

Mercury Systems Receives \$2.8M Order for Modular Rackmount Servers for Naval Weapon System Application

ANDOVER, Mass. – Mercury Systems Inc. has received a \$2.8 million order from a leading defense prime contractor for modular rackmount servers to be used in a naval weapon system, the company said in a March 7 release. The order was booked in the company’s fiscal 2019 third quarter and is expected to be shipped over the next several quarters.

Currently deployed on over 40 naval programs, Mercury’s EnterpriseSeries rackmount servers are designed for mission-critical applications.

“Performance, availability and versatility are extremely important to our customer,” said Scott Orton, vice president and general manager of Mercury’s Trusted Mission Solutions group. “Designed to meet both current and future deployment

needs, our composable servers not only minimize cost but also offer long-term sustainability.”

Navy Awards AARGM-ER Development Contract to Northrop Grumman



ARLINGTON, Va. – The extended-range version of the AGM-88G Advanced Anti-Radiation Guided Missile – Extended Range (AARGM-ER) is proceeding into engineering and manufacturing development (EMD) with the March 7 Defense Department contract announcement of a contract award to Northrop Grumman.

Northrop Grumman Innovation Systems, Northridge, California, was awarded a \$322.5 million cost-plus-incentive-fee contract from the Naval Air Systems Command to provide for the EMD phase, which will include “the design, integration and test of a new solid rocket motor for the AARGM-ER.”

The AARGM-ER will be integrated on the F/A-18E/F Super Hornet strike fighter and EA-18G Growler electronic attack aircraft and configured for internal carriage on the F-35AC Lightning II joint strike fighter.

“AARGM-ER extended range coupled with AARGM lethality will meet a critical defense suppression requirement while protecting our strike aviators,” said Cary Ralston, vice president, defense electronic systems, Northrop Grumman, in a March 8 release.

“The AARGM-ER program is leveraging the AARGM that is

currently in production,” the Northrop Grumman release said.

The AARGM is an improved version of the AGM-88 High-Speed Anti-Radiation Missile (HARM), an air-launched missile used to suppress and destroy enemy air defenses. The AARGM is currently deployed with the U.S. Navy and U.S. Marine Corps on the F/A-18C/D Hornet; the U.S. Navy F/A-18E/F Super Hornet and EA-18G Growler aircraft; and the Italian Air Force’s Tornado electronic combat aircraft.

Work on the EMD phase is expected to be completed in December 2023.