Navy Awards Northrop Grumman New AARGM Contract

LOS ANGELES – The U.S. Navy has awarded Northrop Grumman Corp. a $171 million contract for Lot 7 full-rate production (FRP) of the AGM-88E Advanced Anti-Radiation Guided Missile (AARGM). The contract will deliver advanced capability to U.S. warfighters as well as the Italian Air Force and Royal Australian Air Force to counter the accelerating proliferation of surface-to-air threats.

“The rapid proliferation of today’s threats requires the most advanced solution to detect and defeat surface-to-air-threats and protect our nation and allies,” said Cary Ralston, vice president and general manager, defense electronic systems, Northrop Grumman. “AARGM is an affordable, game-changing solution and we are proud to provide this capability to the warfighter.”

AARGM is a supersonic, air-launched tactical missile system, upgrading legacy AGM-88 HARM systems with capability to perform destruction of enemy air defense missions. AARGM is the most advanced system for pilots, with in-cockpit, real-time electronic order of battle situational awareness against today’s modern surface-to-air threats. It is able to rapidly engage traditional and non-traditional advanced land- and sea-based air-defense threats, as well as striking, time-sensitive targets.

AARGM is a U.S. Navy and Italian Air Force international cooperative major acquisition program with the U.S. Navy as the executive agent. AARGM is currently deployed and supporting operational requirements for the U.S. Navy and U.S. Marine Corps. The missile is integrated into the weapons systems on the FA-18C/D Hornet, FA-18E/F Super Hornet and EA-18G Growler aircraft.

The Italian Air Force recently completed operational testing of AARGM on its Tornado Electronic Combat and Reconnaissance aircraft. A series of flight tests culminated with direct hits on critical air defense threat targets, confirming the operational effectiveness and suitability of AARGM on the Italian Air Force Tornado and allowing the Italian Air Force to transition AARGM into operational squadrons.

New Navy Unit to Replace Special Projects Patrol Squadron

ARLINGTON, Va. – The Navy has established a new unit to sustain a special mission capability in its maritime patrol community with the coming retirement of the P-3 Orion aircraft.

A Sept. 10 internal directive from the Office of the Chief of Naval Operations directed the establishment on that date of Fleet Support Unit One at Naval Air Station Jacksonville, Florida, one of two sites that serve as home bases for the Navy's P-8A Poseidon maritime patrols aircraft.

According to the directive, Fleet Support Unit One "will configure and operate P-8 aircraft to provide a follow-on special mission capability in place of [special] projects patrol squadron (VPU) P-3 aircraft due to sundown in 2019."

The mission of the unit will be to provide "oversight, training, operations, maintenance, and configuration management for the P-8 quick reaction capability aircraft," according to the directive.

Fleet Support Unit One will have an officer in charge rather than a commanding officer, who will report to commander, Patrol Reconnaissance Wing 11, at Jacksonville.

The Navy's sole VPU squadron, VPU-2, operates several specially configured P-3C Orion aircraft from Marine Corps Air Station Kaneohe Bay, Hawaii. The squadron is scheduled for deactivation in fiscal 2019 in concert with the phase-out of the P-3C from operational active-duty patrol squadrons.

Navy Nuclear Reactor Chief: Industrial Base Healthy, but Sustainment Requires High Energy

WASHINGTON – The Navy's nuclear propulsion industrial base is meeting the needs of the Navy, but it requires a lot of attention to sustain it to ensure its availability.

"The [nuclear industrial] base is small," Adm. James F. Caldwell, director, Navy Nuclear Propulsion Program, said Oct. 2 at the Center for Strategic and International Studies, a Washington think tank. "The base is healthy and capable of supporting our Navy nuclear propulsion needs. It's sustainable through the program of record but it takes a lot of energy to sustain that."

Caldwell noted that the nuclear vendors, particularly the principal vendors, share the culture of the Navy nuclear propulsion program.

“What matters the most to the Navy nuclear propulsion program is a stable 30-year shipbuilding plan and a stable budget,” he said. “These are the things that stimulate our commercial vendors to support us. If they know that they’re going to have the business, they will invest their facilities and stay the course with us.”

Caldwell noted that “in the 1990s, when the force structure went down, it resulted in our major suppliers operating significantly below capacity. We were worried that the demise of the nuclear industrial base would result in the loss of the last critical skills that we needed. Since then we focused on right-sizing the industrial base to sustain the critical skills and facilities that we need, and the optimal words were low-rate production, consolidation and down-sizing as appropriate to sustain the skills that we need.”

He also said that “since the 1970s, the Navy nuclear propulsion program has been the sole source that has been driving [the delivery of] new reactors. We’ve done so through first-tier suppliers who don’t specifically rely on commercial business for their business. We have commissioned some 99 vessels since 1979.

“Today, our industrial base is made up of hundreds of vendors of various sizes, but we’re focused mostly on about 28 principal vendors,” he said. “Many of these have been with us for 40 or 50 years and some going on even 60 years. The portion of Navy work for these vendors ranges from 15 percent to 95 percent, some even a little more; the average is around 60 percent. Many of them are seeking opportunities to grow their business in the commercial sector.”

Caldwell regards the nuclear industrial base in three levels: reactor plant heavy components; flow components such as valves and pumps; and reactor instrumentation.

He said the Navy is down to one vendor for reactor plant heavy

components, for which the Navy's requirements are very stringent.

"In the flow control [components], there's some degree of competition, but the barriers for entry are high," he said. "It does take many years to develop vendors to be able to develop the equipment. Probably the most competition is in reactor instrumentation and control. A lot of our vendors have other government business. In this area we have structured our approach to maintain a level of competition while also preserving some redundancy in the vendor base."

Navy Air Warfare Director: C-130 Fleet Will be Full Up in Fiscal 2019

WASHINGTON – The Navy expects to have all of its C-130 Hercules transport aircraft back flying this fiscal year after grounding many for problems with their propellers.

"We'll have all the aircraft up by FY '19 and all the aircraft to the NP2000 [propeller] by FY '20," said Rear Adm. Scott D. Conn, director of Air Warfare in the Office of the Chief of Naval Operations, testifying Sept. 28 before the House Armed Services Seapower and Projection Forces subcommittee.

The Navy Reserve operates 24 C-130T and KC-130T transports, as well as 15 C-40A Skytrain II airlift jets. They are used to support deployed fleet operations by transporting personnel, cargo, spare parts and mail to ships and stations. The C-130 will become even more important in the future.

“The C-130T is the only Navy aircraft capable of moving all modules of the F-35’s engine,” Conn said.

Many Navy and Marine Corps C-130s were grounded as a precaution after a Marine Corps Reserve KC-130T crashed in Mississippi in July 2017, with the possibility that a propeller separated from an engine and cut through the fuselage. The crash killed 15 Marines and one Sailor.

Congress supported the Navy in procuring new propeller blades and new NP2000 propellers for the legacy C-130Ts and KC-130Ts with $121 million.

The Air Force and Navy formed an Independent Review Team at Warner Robins air logistics complex in Georgia to revamp C-130 propeller overhaul requirements, with the Marine Corps, Coast Guard, and partner-nation C-130 operators also invested in the process.

The logistics complex began build-up of 54 propellers in March in support of naval C-130s. The propellers were assembled using new production blades procured from the original equipment manufacturer who currently is increasing delivery from 30 a month to 48 a month by October, Air Force Lt. Gen. Donald E. Kirkland, commander of the Air Force Sustainment Center, also testifyied at the hearing.

The Navy also is upgrading the mission systems of its C-130s.

“For fiscal 2019 the Navy requested $28.5 million for avionics and communications obsolescence upgrades to keep the aircraft compliant with FAA and ICAO [International Civil Aviation Organization] standards to be able to enter air traffic management systems throughout the world,” Conn said. “These modernization efforts are critical to maintaining Navy logistics support to our deployed forces.”

The Navy completed procurement of the C-130Ts in 1996.

“We’re now looking at recapitalizing our effort beginning with advance procurement and buying three [C-130J] aircraft in FY ’23,” Conn said.

President Signs Budget Boosting Navy Ship, Aircraft Procurement

ARLINGTON, Va. — The fiscal 2019 defense budget, part of a multiagency appropriations bill signed into law Sept. 28 by President Donald J. Trump, reflects the will of Congress to plus-up Navy Department ship and aircraft procurement.

The law appropriates $606.5 billion for base defense spending and $67.9 billion for Overseas Contingency Operations funds, totaling $675 billion. This is $20.4 billion over fiscal 2018 funding levels and matches the fiscal 2019 request.

The law, the first defense budget in 10 years that was passed before the fiscal year it funds began, added two littoral combat ships, two F-35B and four F-35C Lightning II strike fighters, two E-2D Advanced Hawkeye early warning aircraft and seven MV-22B/CMV-22B Osprey tiltrotor transport aircraft. The law deleted funding for two C-40A Skytrain II transport aircraft.

The law funds 13 ships in 2019 at $24 billion, $2.3 billion more than the Navy’s request. These include:

■ Two Virginia-class attack submarines ($4.3 billion)

■ Three Arleigh Burke-class Flight III guided-missile destroyers ($5.3 billion)

■ Three littoral combat ships ($1.6 billion)

■ One expeditionary sea base ship ($647 million)
■ One Spearhead-class expeditionary fast transport ($225 million)
■ Two John Lewis-class fleet replenishment oilers ($1 billion)
■ One towing, rescue and salvage ship ($80.5 million)

The law also funded advance procurement for several ships:
■ $350 million for an LPD Flight II amphibious transport dock ship
■ $350 million for the LHA 9 amphibious assault ship
■ $250 million to purchase an additional Arleight Burke guided-missile destroyer in fiscal 2020
■ $3 billion to support the construction of the Colombia-class ballistic-missile submarine
■ Adds $18 million for industry studies and requirements definition for the Common Hull Auxiliary Multi-Mission Platform (CHAMP) to replace sealift and auxiliary vessels and directs the Navy to present an updated acquisition strategy for CHAMP.

Aircraft funded for fiscal 2019 ($20 billion, $1 billion more than the Navy's request) include:
■ 22 F-35B and 13 F-35C Lightning II strike fighters ($3.5 billion)
■ 24 F/A-18E/F Super Hornet strike fighters ($1.9 billion)
■ 10 P-8A Poseidon maritime patrol aircraft ($1.8 billion)
■ Nine E-2D Advanced Hawkeye early warning aircraft ($1.1 billion)
■ Three MQ-4C Triton maritime patrol UAVs ($544 million)
■ Two KC-130J Super Hercules refueler/transports ($150 million)
■ 13 MV-22B and CMV-22B Osprey tiltrotor transports ($1.1 billion)
■ Eight CH-53K King Stallion heavy-lift helicopters ($1 billion)
■ 25 AH-1Z Viper attack helicopters ($798 million)
■ Six VH-92A presidential transport helicopters ($49 million)

Sara Fuentes, staff vice president, legislative relations, contributed to this report.

Navy Acquisition Chief: Navy Moving to Use Block Ship Maintenance Contracts

ARLINGTON, Va. – The Navy's top acquisition official said the service is moving toward block bidding of ship maintenance rather than issuing contracts for single ship availabilities. The Navy also is working to rapidly address unplanned repair needs for its ships.

"We've got a real challenge and opportunity ahead on how we operate [the Navy's] repair enterprise at speed," James F. "Hondo" Geurts, assistant secretary of the Navy for Research, Development and Acquisition, told reporters Sept. 26 at the Modern Day Marine expo in Quantico, Virginia. "We've already instituted a number of changes in contracting, how we deal with over-and-above and unplanned work.

"Traditionally, we've taken a very bureaucratic approach to resolve each one of those," he said. "[We're] coming up with a new contract mechanism that allows us to rapidly adapt to that unknown work as it pops up, so that we aren't keeping ships in the yards longer than they have to be."

Geurts said the Navy is "looking at how do we put multiple ships together so that there is a longer planning window and industry can provide better solutions because they have a longer-term look, whether that's workforce, or training, or yard planning. Ideally, we would contract for all the ship

repairs for the next six months in a block as opposed to our more traditional [method of] each ship's repair independently. That way industry would better plan and [facilitate] for the long haul."

He also said that with the number of ship repairs needed, "we don't have the capacity now without improving our efficiency and working with industry to figure how to become more efficient, as well as looking at their scale and how we bring more players into the marketplace to help us with that growing need."

Geurts cited a recent request for proposals in which three or four repairs were bundled together in a single bidding action.

"We've revised how we're doing this unplanned of over-and-above work, which is adding great efficiencies," he said. "We have approved [the] grouping together of contracts."

He also said the Navy conducted a survey of shipyards across the country, including those not currently doing business for the service, to determine repair capacity, location of dry docks, etc., "and proactively going out and, where there is opportunity, certifying those facilities and enabling them to compete and add into the marketplace."

The Navy received last month feedback from shipyards numbering in "double digits."

"Ultimately, we want a vibrant repair capability that can both do the work we know really well, efficiently and effectively, as well as give us capacity for work that we didn't know as it pops up," he said.

As to the block bidding, Geurts said that "if you have the right competitive market you will absolutely save money, because right now we're doing it single bid by bid. It's really hard for a company to do that efficiently."

He also spoke of a workforce challenge across the country, “whether it’s in the public yards or in the private repair yards. We right now don’t have the full workforce we need to meet the demand.”

Geurts sees the Navy’s efforts as “providing a better stability and a better planning horizon” for the ship maintenance enterprise.

According to the Marine Corps, fielding for the JLTV will begin in spring 2019. In all, the Army plans to purchase 49,000 JLTVs and the Marine Corps will purchase 9,091.

Navy to Combine F-35C Replacement Training Squadrons in 2019

Navy to Combine F-35C Replacement Training Squadrons in 2019ARLINGTON, Va. — The Navy plans to deactivate one of its two F-35C fleet replacement training squadrons next year and combine its aircraft and personnel within the other replacement training squadron.

According to a Navy internal directive dated Sept. 10, the Navy intends to deactivate Strike Fighter Squadron 101 (VFA-101) on July 1. VFA-101 is based at Eglin Air Force Base, Florida, and is mainly involved in training instructor and test pilots for the F-35C.

The Navy will “realign” VFA-101 assets into VFA-125, the fleet replacement training squadron based at Naval Air Station (NAS) Lemoore, California.

“This will co-locate the fleet [replacement] squadron production of pilots directly into the operational squadrons scheduled for transition to F-35C and meet testing and evaluation requirements for initial operating capability of VFA-147 as the first [F-35C] joint strike fighter deployer in fiscal year ’21,” the directive said. “The move of VFA-101 personnel and aircraft also supports Naval Aviation Warfighting Development Center advanced training at NAS Fallon, Nevada.”

VFA-101, a former fleet replacement squadron for the F-14 Tomcat fighter, was reactivated in 2012 and began flying the F-35C in 2013.

ONR Delivers Capability to Navy Divers

ARLINGTON, Va. – For U.S. Navy deep-sea divers, time is of the essence. While operating 100 feet down, with little to no natural light – often in frigid temperatures and limited oxygen – time is everything.

But for divers, time remains a precious commodity on the surface as well.

For years, military divers have had to manually write and log information from dives while at sea into a system known as the Dive/Jump Reporting System (DJRS). Manually entering entries can be time-consuming and allow human error.

Enter the Office of Naval Research (ONR) Global TechSolutions program – a rapid-response science and technology program focused on solutions to problems submitted by Sailors and

Marines.

ONR TechSolutions and industry partners have created a new tool called the Scuba Binary Dive Application (SBDA) 100 to digitally plan, record and report dive-profile information to DJRS. The application will accelerate the process of logging and uploading dive information, and will help eliminate potential data-entry mistakes, ONR reported in a Sept. 19 release.

The idea originated from Force Master Diver Scott Brodeur, Naval Expeditionary Combat Command.

“Scott has completed over a thousand dives during his career and he recognized the need to make the logging and reporting process more efficient for his peers,” said Jason Payne, TechSolutions acting program manager.

The SBDA 100 is a software application on a ruggedized tablet used to log, compute and accurately compile dive-profile data.

The data – collected from a wrist watch that divers wear during operations called a Navy Diver Computer – includes dive site conditions, equipment used by the divers, dive events (such as when a diver left the surface or left the bottom of the ocean floor) and if the dive required decompression stops. SBDA 100 syncs this information and automatically uploads it to DJRS.

“For years, I witnessed how many hours it takes to manually log dives – watching the young guys that have to – at the end of a long 12- to 14-hour day – come back and manually go through the dive logs and write everything down, and double check it and triple check it,” said Brodeur.

During a recent training exercise in the Gulf of Mexico, Brodeur, the Naval Experimental Dive Unit and other U.S. Navy divers stationed around the globe had the opportunity to test the technology for the first time.

“The designers gave me a crash course on how to operate the technology,” said Chief Navy Diver Marshall Goble, ship repair facility, Yokosuka, Japan. “I used the device as a primary but still used the ‘old school’ way and wrote down the information as well. Both calculations came out 100-percent accurate. I found the tablet easier to use, and I have no doubt it’s going to streamline efficiency.”

Throughout the process of the development of the SBDA 100, ONR TechSolutions has worked in conjunction with Space and Naval Warfare Systems Command (SPAWAR) Atlantic; industry partner Intelligent Automation Inc.; and Naval Surface Warfare Center (NSWC) Panama City, which is the home of the U.S. Naval Diving and Salvage Training Center. SPAWAR served as the principal investigator and NSWC Panama City provided technical support and hosted the training and demonstration of the SBDA 100 at sea.

“The technology has tested very well,” said Brodeur. “It’s a testament to the value of the ONR TechSolutions program and everyone who worked on this project. Witnessing this idea come to fruition and have it be built, demonstrated, designed and ready for use is pretty exciting.”

Phase I Complete for Navy’s Range Support Aircraft Replacement

NAVAL AIR STATION PATUXENT RIVER, Md. – The Tactical Airlift Program Office (PMA-207) Commercial Modifications and Range Support (CMARS) Team accepted delivery of its newest commercial-derivative aircraft platform on July 30, Naval Air

Systems Command said in a Sept. 6 release.

The Gulfstream G550, with structural modifications, was further modified to house specialized telemetry equipment, unique to the Navy's application. The G550 is slated to serve as the replacement for one of the aging P-3 range support aircraft operated out of Naval Air Warfare Center Weapons Division in Point Mugu, California. The aircraft's structural modifications allow room for installation of a telemetry system and additional equipment to support future missions.

During a ribbon-cutting ceremony attended by Gulfstream executives and PMA-207 leadership, Program Manager Capt. Steven Nassau spoke to the complexity of this acquisition.

"Just getting to this point has been a process," Nassau said. "The team had to coordinate with AIR-5.0 Test and Evaluation leadership, AIR-2.0 Contracts, AIR-5.2 Ranges and AIR-5.1 test squadrons for mission equipment and airframe expertise, as well as AIR-6.0 Logistics for sustainment to keep this acquisition on schedule. Delivering the aircraft under cost and on schedule is a major milestone for such a complicated project."

PMA-207 CMARS Integrated Program Team Lead Chris Mullaney said credit should not only be given to those currently working on this project, but to those who have in the past as well.

"One of the original leads for this project was Jaimie Grubb. She, along with her Range Support Aircraft Team, had impressive foresight and solid planning at the beginning of this endeavor that paved the way for the successes we are seeing here today – delivery of a high-quality product on cost and on schedule," said Mullaney.

From here, the Phase II Integrator, Raytheon, will receive the G550 aircraft as government-furnished property and will develop, procure and integrate systems that will give the aircraft a multirole capability in telemetry data collection,

range safety and surveillance and communications relay. This modern, phased-array telemetry system will have the capability to support major programs in complex, robust and dynamic test environments for many years.

The aircraft is projected to be delivered for initial operating capability by August 2021.

Rising Accident Rates Taking Toll on Navy, Marine Aircraft Availability

RENO, Nev. – The accident rate for the major Class A mishaps in naval aviation is "trending up" and there has been a "major increase" in the more minor Class C accidents, which is aggravating the lack of aircraft availability the Navy and Marine Corps have been struggling to overcome, the Naval Safety Center commander reported.

The naval services are taking a series of steps to reverse the jump in Class C mishaps and aggressively working to develop better analytical tools to help prevent the major accidents, which result in the loss of aircraft or personnel or multi-million dollars in damage, Rear Adm. Mark Leavitt said Sept. 8.

Also, following a year-plus of multiple studies and corrective actions, naval aviation has made "good progress" in stopping the surprising increase in physiological episodes, or apparent shortage of oxygen in flight. "But it does remain our No. 1 safety concern," Rear Adm. F. R. "Lucky" Luchtman, the head of the recently created Physiological Episode Action Team, said

at the same forum during the annual Tailhook Convention of aircraft carrier aviators.

Leavitt said the Class A accidents in naval aviation this year have “exceeded last year’s numbers,” with 14 mishaps. “The rate is trending up.”

The Marines, however, “are doing much better this year, down to five” Class As, compared to 12 last year, he said.

Although some members of Congress have blamed the higher Class A rates to the age of aircraft and poor maintenance due to the budget reductions, Leavitt said the accident investigations are “still finding between 60 to 70 percent causal factors are human errors. We’ve not seen a spike of material problems.”

In the Class C mishaps, “this is not a good news story,” Leavitt said, but did not provide numbers for what he called a “major increases.”

Although the C mishaps inflict damages costing a comparatively low $50,000 to $500,000, they can take an aircraft out of service for months, which is aggravating the problems of too few available planes, he said.

Service studies have attributed the increase in the aviation version of fender benders to violations of established procedures by squadron maintenance personnel, which may reflect a lack of experience in the midgrade enlisted maintainers because of faster advancement in rank during a drive to keep more Sailors in service, he said.

The studies also indicate a “breakdown in team work,” which has led to efforts to get more “khaki leadership out on flight line, the flight deck,” Leavitt said, referring to chief petty officers and commissioned officers.

In an effort to reduce the major mishaps, Leavitt said the Safety Center has created a new office focusing on developing

analytic tools to provide more data on causes and related factors, which can be shared with squadron commanders to help avoid accidents, he said.

The physiological episode team Luchtman leads is attacking the alarming number of incidents in which pilots in the F/A-18 Hornets and Super Hornets, EF-18G Growlers and the T-45 and T-6 training aircraft have reported in-flight conditions similar to hypoxia or oxygen shortage.

Luchtman said intensive studies by the Safety Center, NASA and others led to some modifications to the aircraft oxygen supply systems and indications that poorly fitted pilot’s equipment cause some of the incidents.

They also are adding systems to the aircraft that can measure the quality of oxygen being provided to the pilots, he said and are seeking even better devices to monitor the oxygen flow. They are working with the Air Force and allies who fly similar aircraft and have had some of the same problems.