

# **Mercury Systems Receives \$5.5M in Follow-on Orders from Navy for DRFM Jammers**

ANDOVER, Mass. – Mercury Systems Inc. announced that it received an additional \$5.5 million in follow-on orders against its previously announced \$152 million five-year sole-source basic ordering agreement to deliver advanced Digital RF Memory (DRFM) jammers to the U.S. Navy.

The orders were received in the second and third quarters of the company's fiscal 2019 and are expected to be delivered over the next several quarters.

"These orders reflect the U.S. Navy's continuing commitment to the advancement of our electronic warfare test and training capabilities," said Mark Bruington, vice president and general manager of Mercury's electronic warfare and mission solutions group.

"Recent electronic attacks by known adversaries have sparked a renewed commitment to maintaining U.S. superiority in electronic warfare. Our ongoing efforts to design, develop and produce innovative DRFM jammers directly supports the growing need to effectively train U.S. warfighters and keep U.S. electronic protection technology at the leading edge."

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## **Navy Picks BAE Systems to**

# Develop Cyber Defenses

MCLEAN, Va. – The Navy has chosen BAE Systems to compete for future cyber-engineering task orders awarded under a seven-and-a-half-year, indefinite-delivery/indefinite quantity (IDIQ) contract, according to a BAE release.

The contract is intended to be used by naval, joint and national agencies seeking lifecycle service support for command, control, communications, computers and combat systems. Additional task orders may be awarded to improve the capabilities and security of various signals intelligence, imagery intelligence, electronic warfare, surveillance and reconnaissance systems.

“This award creates new opportunities for us to showcase our expertise in cyber-threat exploitation and analysis, computer network defense and security-focused systems engineering,” said Kris Busch, who is vice president of BAE Systems’ Integrated Defense Solutions business.

“We are also introducing new advanced analytics, artificial intelligence and machine-learning solutions that will further improve our nation’s ability to defend against future land, sea, air, space, cyber and electromagnetic warfare threats.”

The award also may be used to develop, test, produce and field next-generation autonomous and unmanned missions systems, according to BAE Systems, which is one of 10 companies chosen to compete for task orders awarded under the IDIQ, managed by Space and Naval Warfare Systems Center Atlantic. The maximum value for all future task orders awarded under the contract is \$898 million.

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# Navy Undersea Warfare Director: 'We Cannot Be Out- Escalated' in Nuclear Deterrence

WASHINGTON – The Navy's director for undersea warfare said the nation's nuclear submarine-based strategic deterrent is more important than ever and that the 12 planned Columbia-class ballistic-missile submarines (SSBNs) are needed to sustain a credible strategic triad for the future.

Speaking Feb. 2 at a discussion of the Columbia SSBN event at the Heritage Foundation, a Washington think tank, Rear Adm. John W. Tammen pointed out that, with the new era of great power competition, "the need for deterrence has never been greater. That's based on the destructive [power] of modern-day weapons and the competitive landscape that we are seeing with [Russia's and China's attempts] to make their place in the global domain.

"We have to own the top rungs of the escalation ladder," Tammen said. "Our competitors must understand that we cannot be out-escalated in our part of the [strategic] triad and we must have the will and the credible capability to respond as necessary to their aggression and the cost that they would take would be greatly outweighed by any perceived gains."

Tammen said that all three legs of the U.S. strategic deterrent triad – bombers, intercontinental ballistic missiles (ICBMs) and submarine-launched ballistic missiles – are important, as are the command, control and communications systems associated with those weapons.

Tammen said the most survivable leg – the SSBN – "gives the president time to make a decision. He does not have to worry

that he is going to have an attack that will decimate his ability to respond.”

The requirement for at least 12 Columbia-class SSBNs is predicated on having 10 available for deterrence patrols while two are in deep maintenance. The 12 new subs, which replace 14 Ohio-class SSBNs, will have 42-year service lives because their reactors will never need refueling.

Tammen said that, with the Columbia class, the nation will get an ultra-quiet platform that will benefit from the success of the Virginia-class attack submarine program, that will leverage more than 50 years of SSBN experience, and that will deploy a weapon – the Trident D5LE missile – that has had 11 successful test launches.

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# **Navy Admirals: SWO Proficiency Standards Toughened With New Checkpoints**

WASHINGTON – The Navy’s efforts to improve training and the readiness of its surface warfare officers (SWOs) now include longer initial sea duty tours and a series of checkpoints that must be passed before an officer can command a ship.

The new standards result from the Navy’s reassessment of surface warfare training in the wake of the fatal collisions of the Arleigh Burke-class destroyers USS Fitzgerald and USS John McCain in mid-2017.

Testifying Feb. 26 before a joint hearing of the Readiness and the Seapower and Projection Forces subcommittees of the House Armed Services Committee on Capitol Hill, Adm. Christopher W. Grady, commander of U.S. Fleet Forces Command and U.S. Naval Forces Northern Command, and Adm. John C. Aquilino, commander of the U.S. Pacific Fleet, also told Congress that ships will not deploy without having met the training standards.

Grady said the Navy is working to develop a culture where “we view standards as the absolute minimum.”

“If ships of the Pacific Fleet aren’t ready, they don’t get underway,” Aquilino said. Noting that manning challenges are being relieved by an additional 6,200 sailors earmarked fleetwide for ships, he said, “No [ship] deploys without the full complement of people that they will have.”

Aquilino, who is briefed on the status of his ships three times per week and talks to his commanders weekly, said that since he took command of the Pacific Fleet, he has terminated the deployments of two ships that were not ready. He also said he has granted no waivers.

“We adhere to those [standards] rigorously,” he said.

Grady said that commanding officers are required to submit letters to their type commander 90 days after assuming command on the readiness of their ships.

He said SWO training has lengthened, from 14 weeks to 23 weeks, with much more time in simulators. A few years ago, SWO school was only four weeks long and then was shut down altogether for a few years while officers learned via compact discs (“SWOs in a Box”).

“The total duration at sea for a young division officer is now going to be four years,” he said.

“We have recognized that it is all about the appropriate

experience,” Grady said.

Ten milestone checkpoints in a career have been established to track the progress of a SWO from ensign to captain toward command of a ship. Three of these checkpoints are go/no-go decision points.

“If you fail one of those three checkpoints, we’re not going to let you command a ship,” Grady said.

“This is the culture of excellence that we’re [inculcating] and, to this point, 5 percent of those folks have been asked to leave the command pipeline [because] they were not ready.”

Aquilino said he was impressed with the effectiveness of the simulators for the littoral combat ships.

“That model is going to be transitioned into the destroyer [force] as well,” he said. “The way we train is getting better. That will allow us to more quickly get those up to speed who haven’t had it.”

The fleets also are focusing on the training of enlisted operations specialists and quartermasters – the two ratings most involved in the navigation of a ship.

Grady also said “the complexity of a modern warship” demands that the Navy maintain its generalist approach that SWOs be both operations and engineering officers, unlike the Royal Navy, which splits SWOs into separate operations and engineering tracks.

Grady cited the example of the Ticonderoga-class cruiser USS Princeton that struck a mine during the Persian Gulf War.

“The two officers that were on watch and responded to that were the weapons officer and the engineering officer, both of whom so well understood the complexity of the integration of the combat systems and the engineering plant [and] how to maneuver the ship that they were able to keep fighting for 72

hours by pointing the deckhouse up-threat into Iraq,” he said. “That’s why you need officers who are both engineers and topside ship drivers.”

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## **CPI Aero Announces \$8.1 Million Contract for E-2D Wing Kits From Northrop Grumman**

EDGEWOOD, N.Y. – CPI Aerostructures Inc. has received a contract with a maximum value of \$8.1 million from Northrop Grumman Corp. for outer wing panel kits used in the manufacture of complete wings for the E-2D Advanced Hawkeye, CPI Aero announced in a Feb. 25 release. CPI Aero has produced outer wing panel kits since 2008 for the E-2D Advanced Hawkeye, the U.S. Navy’s carrier-based airborne early warning and control aircraft.

“Exceptional program execution, superior product quality and the ability to provide value to our customers lies at the heart of our ongoing ability to secure multiyear defense contracts with leading defense technology companies,” said Douglas McCrosson, president and chief executive officer of CPI Aero. “We are pleased to have the opportunity to extend our long-standing partnership with Northrop Grumman for an additional six years as a key member of ‘Team Hawkeye.’”

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# Construction Begins on Future LCS USS Canberra

MOBILE, Ala. – Construction on the future USS Canberra (LCS 30) began Feb. 22 in Austal USA's module manufacturing facility, the company said in a release of the same date. Dave Growden, LCS program director, pushed the button to start the router that cut the first piece of aluminum, signaling start of construction for the 15th Independence-variant littoral combat ship.

LCS 30 will be the second U.S. Navy vessel to bear the name USS Canberra in honor of Australia's capital city. In 1943, the first USS Canberra joined the U.S. Navy, serving with distinction in the Pacific in World War II, the Cuban Missile Crisis blockade and the Vietnam War.

"It's a privilege to be building a U.S. Navy combat ship named for the capital of Australia, the birthplace of Austal USA's parent organization," said Austal USA President Craig Perciavalle. "The Independence-variant LCS will play a prominent role in the safety and security of the Pacific as our ships deploy forward this year and for years to come."

Austal USA has delivered nine littoral combat ships to the U.S. Navy, while six are currently under construction (LCS 20-30) and four are awaiting the start of construction following LCS 30.

LCS is a highly maneuverable, lethal and adaptable ship designed to support focused mine countermeasures, antisubmarine warfare and surface warfare missions. The ship integrates new technology and capability to affordably support current and future mission capability from deep water to the littorals.

As the role of the littoral combat ship continues to evolve as

a key component to the Navy's ability to gain sea control through distributed lethality, Austal USA continues to deliver ships on time and on budget to support the needs of the fleet. The Independence-variant LCS, along with Austal USA's highly successful Expeditionary Fast Transport (EPF), are designed, constructed and well-positioned to meet the needs of the fleet today and into the future. The flexibility and capacity of the Austal USA shipyard, the Independence-variant LCS and the EPF are well suited to rapidly and efficiently support the Navy's desired fleet of 355 ships with affordable solutions.

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## **Navy Accepts Delivery of Future USS Paul Ignatius**

PASCAGOULA, Miss. – The Navy accepted delivery of the future guided missile destroyer USS Paul Ignatius (DDG 117) from Huntington Ingalls Industries'

(HII) Ingalls shipbuilding division, Feb. 22, the Program Executive Office – Ships (PEO-Ships) said in a release of the same date.

Accepting delivery of DDG 117 represents the official transfer of the ship from the shipbuilder to the Navy. Prior to delivery, the ship conducted a series of at-sea and pier-side trials to demonstrate its material and operational readiness.

The 67th Arleigh Burke-class destroyer honors Paul Robert Ignatius, who served in the U.S. Navy during World War II; as secretary of the Navy from 1967- 1969; and as assistant secretary of Defense during the Lyndon B. Johnson administration.

“Our industry partners have delivered another highly capable platform that will provide our Sailors and Nation with warfighting lethality for the next four decades,” said Capt. Casey Moton, DDG 51 class program manager, (PEO) Ships. “We are proud to accept delivery of Paul Ignatius and look forward to her Commissioning ceremony later this summer.”

The DDG 51 class ships currently being constructed are Aegis Baseline 9 Integrated Air and Missile Defense destroyers with increased computing power and radar upgrades that improve detection and reaction capabilities against modern air warfare and Ballistic Missile Defense threats.

In addition to Paul Ignatius, HII’s Pascagoula shipyard is also currently in production on the future destroyers Delbert D. Black (DDG 119), Frank E. Peterson Jr. (DDG 121), Lenah H. Sutcliffe Higbee (DDG 123) and Jack H. Lucas (DDG 125), the first Flight III ship. HII is under contract for an additional six Arleigh Burke-class destroyers, awarded as part of the fiscal 2018-2022 multiyear procurement, that will be constructed in the Flight III configuration with enhanced Air and Missile Defense capabilities.

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## **USS Tulsa Commissioned as Navy’s Newest Surface Combatant**

SAN FRANCISCO – The littoral combat ship USS Tulsa (LCS 16) was commissioned as the Navy’s newest surface combatant in a ceremony in San Francisco Feb. 16.

The Independence-variant LCS is the Navy’s second ship to be

named for the city of Tulsa, Oklahoma.

“She truly is an amazing ship and an amazing addition to the fleet, but as impressive as she is, she would be nothing without the Sailors you see lining her deck this morning,” said Cmdr. Drew Borovies, Tulsa’s commanding officer. “And as much as they have already accomplished, they know their true greatness lies ahead as Tulsa enters the fleet and stands ready to answer her nation’s call. They are the finest Sailors our Navy has to offer. They are tough, able and ready to take our nation’s newest warship to sea.”

Indeed, in little more than three years, the ship has progressed from its keel laying in Mobile, Alabama, to its commissioning. Kathy Taylor, ship’s sponsor and former Tulsa mayor, was present for both events and many in between.

“I have gotten to know the crew of this exceptional USS Tulsa, and I know they will fight when they must,” said Taylor. “I know they will protect this country at all costs, because they know everything they fight for and they protect keeps the promises made to all Americans.”

Current Tulsa Mayor G.T. Bynum emphasized the bond between the people of Tulsa and the Sailors who serve aboard the Navy’s newest ship.

“Wherever you are in the world, whatever day it might be or whatever hour in that day, we hope you know that there are hundreds of thousands of your fellow Tulsans who are thinking of you, and who are honored to be associated with you and are so proud of you,” said Bynum.

The crew visited the city little more than a year ago to learn more about it and its people. Oklahoma Sen. James Lankford recounted some of the characteristics of the city and its people beginning at the city’s founding as the destination of a forced migration of Native American people, through booming growth and cultural turmoil and into a city renowned for its

diversity and beauty.

“When you arrive at any port of our nation or any port around the globe, you will bear all of our names and all of our history,” said Lankford. “You are capable of operating in all environments. Your mission is to protect our seas and deter aggression, but when deterrence fails, we also know you are fully capable of restoring the peace. Your actions, your words, your faith, your discipline and your power will reveal to a curious world just who we are as Americans. You are our ambassadors for freedom and you bear the name Tulsa and the United States of America.”

Tulsa will join the fleet at a time of expansion of capability as well as increased demand on the Navy forces.

Assistant Secretary of the Navy James Geurtz noted Tulsa is the fifth ship the Navy has commissioned in the past 50 days and one of 13 ships slated to be commissioned this year – up from eight a year ago – as part of broader efforts to ensure the nation’s maritime freedom.

“Having the right mix of ships with the right number of ships, to include Tulsa, makes us ready to execute prompt and sustained combat operations at sea to fight and win against any adversary,” said Adm. John C. Aquilino, commander of U.S. Pacific Fleet. “Let there be no doubt, that is what Tulsa is ready to do.”

After the ceremony, the ship will transit to San Diego to join Littoral Combat Ship Squadron 1 and eight other littoral combat ships currently homeported at Naval Base San Diego.

Tulsa is the 15th littoral combat ship and the eighth of the Independence variant.

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# Navy Requests Information for Unmanned Maritime Autonomy Architecture

Navy Requests Information for Unmanned Maritime Autonomy Architecture

By RICHARD R BURGESS, Senior Editor

WASHINGTON – The Navy has issued a Request for Information (RFI) from industry concerning unmanned autonomous maritime systems standardization to lead to more commonality in systems architecture.

The RFI, released on Feb. 15 by the Program Executive Office-Unmanned Maritime Systems and Small Combatants, is for Unmanned Maritime Autonomy Architecture (UMAA) for operation of unmanned undersea vehicles (UUVs) and unmanned surface vehicles (USVs).

“The intent of UMAA is to provide overarching standards that various UUVs and USVs can be built to in order to avoid creating multiple conflicting systems in the future,” an official said.

The RFI, posted on the FedBizOps website, invites government organizations and industry “to participate in the development of the Unmanned Maritime Autonomy Architecture (UMAA). The UMAA is being established to enable autonomy commonality and reduce acquisition costs across both surface and undersea unmanned vehicles.”

The RFI said that in 2018 “the Unmanned Maritime Program

Office (PMS 406) chartered a cross-organizational team to develop the Unmanned Maritime Autonomy Architecture with the goal of standardizing autonomy interfaces across its growing portfolio of unmanned vehicles. Earlier this year, the team published the UMAA Architecture Design Description providing the initial framework for both service and interface definition. Additional design guidance will be provided through a series of Interface Control Documents (ICDs) in the areas below.

- Situational Awareness,
- Sensor and Effector Management,
- Processing Management,
- Communications Management,
- Vehicle Maneuver Management,
- Vehicle Engineering Management,
- Vehicle Computing Management,
- Support Operations”

An initial industry day will be held on March 4.

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## **U.S. Government Approves Release of Boeing EA-18G Growler to Finland**

ARLINGTON, Va. – Boeing and the U.S. Navy have received U.S. Department of Defense approval to offer the EA-18G Growler to

Finland, the company said in a Feb. 18 release. Previously only Australia had been authorized to purchase the airborne electronic attack (AEA) aircraft.

Boeing and the Navy have offered the Growler and F/A-18 Super Hornet in a response to query issued by the Finnish Ministry of Defense as part of their HX fighter program procurement.

“All strike fighter aircraft rely on Growler escort to increase survivability during high-threat missions,” said Dan Gillian, Boeing vice president, F/A-18 and EA-18G programs. “The combination of the Super Hornet Block III and Growler would provide Finland with superior technological capability particularly suited to Finland’s HX mission requirements.”

An F/A-18 variant, the Growler is the world’s most advanced AEA platform and the only one in production today. It’s capable of disrupting, deceiving or denying a broad range of military electronic systems including radar and communication systems.

In addition to the U.S. Navy, the Growler is flown by the Royal Australian Air Force.