

# Rolls-Royce to Power Boeing MQ-25 UAV for U.S. Navy

INDIANAPOLIS – Rolls-Royce engines have been selected by Boeing to power the U.S. Navy's new MQ-25 Stingray unmanned aerial vehicle (UAV), which will provide unmanned, carrier-based air-to-air refueling, Rolls-Royce announced in a Sept. 6 release.

The U.S. Navy has awarded the MQ-25A engineering and manufacturing contract to Boeing to provide four aircraft. The MQ-25 is designed to provide the Navy with a much-needed refueling capability and extend the range of combat aircraft from carriers.

Each MQ-25 aircraft will be powered by a single Rolls-Royce AE 3007N engine, manufactured in Indianapolis. The AE 3007N, the latest variant of the Rolls-Royce AE family of engines, will provide more than 10,000 pounds of thrust and additional electrical power to the aircraft.

“Congratulations to Boeing for being selected to develop this historic aircraft in support of the U.S. Navy,” said Jarrett Jones, Rolls-Royce executive vice president, Customer Business, Government Relations and Sales. “For Rolls-Royce, it will expand our UAV expertise with unmanned aircraft in the U.S. Navy fleet, which includes the Triton and Fire Scout aircraft.”

The proven Rolls-Royce AE family of engines includes turbofan, turboprop and turboshaft variants, and the total AE engine fleet has accumulated more than 74 million engine flight hours. AE engines power aircraft for the US Navy, Air Force, Marine Corps and Coast Guard, and a variety of military and civilian aircraft in service around the world. Rolls-Royce has delivered nearly 7,000 AE engines from the company's advanced

manufacturing facility in Indianapolis.

The AE 3007H turbofan engine powers the Navy's Triton and the Air Force Global Hawk, as well as commercial and business aviation aircraft. The AE 2100 turboprop powers the Lockheed Martin C-130J and LM-100J, as well as the C-27J and Saab 2000; and the AE 1107C turboshaft powers the Bell-Boeing V-22 Osprey operated by the U.S. Navy, Marine Corps and Air Force. The MT7, a marinized variant of the AE 1107, will power the Navy's Ship-to-Shore Connector hovercraft.

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## **CNO Richardson: Columbia SSBN Program on Track, Help on Margin Needed**

ARLINGTON, Va. – The Navy's top officer said the program schedule to build the Navy's next-generation ballistic-missile submarine (SSBN) is very tight and some more margin in the program would help.

"What I am pushing the team to do is stay on track," said Adm. John M. Richardson, chief of naval operations (CNO), answering a reporter's question while speaking Sept. 5 at the Defense News Conference. "But it is right on track. We need to find some margin in that program, largely in schedule, in particular."

The Columbia-class SSBN is being built to replace the Ohio-class SSBN as the platform for the Navy's contribution to the national nuclear deterrent, the Trident D5 ballistic missile. The Navy plans to build 12 boats to succeed the 14 Ohio SSBNs as they reach the end of their service lives. Critical is the

need for the first Columbia to be ready to deploy for its first ballistic-missile patrol in fiscal 2031.

“In a program of this complexity, it’s just a fact of life that there are going to be things that will surprise us going forward,” Richardson said. “So we need to build in enough margin to accommodate those surprises and also – very important – we make sure that the entire team – the industrial base, the Navy, everybody – understands that a program of this importance, with that little margin, perhaps requires increased oversight so that we’re not making mistakes and eating into a program that has very thin margins already.

The Columbia-class SSBN program is expected to cost \$128 billion for acquisition.

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## **CNO Selects Fleet Master Chief Smith as 15th MCPON**

ARLINGTON, Va. – Following a comprehensive review of potential candidates, Chief of Naval Operations (CNO) Adm. John Richardson selected Fleet Master Chief Russell Smith to be the Master Chief Petty Officer of the Navy (MCPON) Aug. 29, the Navy’s Office of Information said in a release of the same date.

“After a thorough and deliberate review process, I am confident that Fleet Master Chief Smith is the right leader to be our Master Chief Petty Officer of the Navy,” said Richardson. “I look forward to working with him to advocate for our Sailors and their families selflessly serving around the world.”

As the Navy's 15th MCPON, Smith will serve as the senior-ranking enlisted leader and adviser to the CNO.

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## **Navy's Faller Nominated for U.S. Southern Command**

ARLINGTON, Va. – A Navy admiral has been tapped to be the next commander of U. S. Southern Command. Vice Adm. Craig S. Faller, currently serving as the senior military assistant to the secretary of defense, also has been for appointment to the rank of admiral by Defense Secretary James N. Mattis, according to the Aug. 16 Defense Department announcement.

If confirmed, Faller, a nuclear-qualified surface warfare officer, would succeed Adm. Kurt W. Tidd, also a surface warfare officer.

U.S. Southern Command is responsible for all Defense Department operations and security cooperation in the 45 nations and territories of Central and South America and the Caribbean Sea, an area of 16 million square miles, according to the command's website.

Faller, a native of Fryburg, Pennsylvania, is a 1983 graduate of the U.S. Naval Academy and the Naval Postgraduate School. Below are excerpts from his official biography:

“At sea, he served as reactor electrical division officer, electrical officer and reactor training assistant aboard USS South Carolina (CGN 37); operations officer aboard USS Peterson (DD 969); station officer aboard USS Enterprise (CVN 65); and executive officer of USS John Hancock (DD 981). As commanding officer of USS Stethem (DDG 63), he deployed to the

Arabian Gulf and participated in maritime interception operations in support of United Nations sanctions against Iraq. During his tour as commanding officer of USS Shiloh (CG 67), he assisted victims of the devastating tsunami off Indonesia. Finally, as commander, Carrier Strike Group 3, he deployed to the Middle East supporting Operations New Dawn (Iraq) and Enduring Freedom (Afghanistan).

“Ashore, Faller was assigned to chief of legislative affairs for the secretary of the Navy; served as deputy chief of naval operations (Plans, Policy and Operations); served as a legislative fellow on the staff of Sen. Edward M. Kennedy; served as head of Surface Nuclear Officer Programs and Placement at Navy Personnel Command and served as executive assistant to the chief of naval operations.

“Finally, he served as commander, Navy Recruiting Command; as executive assistant to the commander, U.S. Pacific Command and commander, U.S. Central Command; and as director of operations, U.S. Central Command.”

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## **Navy Set to Establish First CMV-22B COD Squadron at NAS North Island**

ARLINGTON, Va. – The chief of naval operations has set a date for the establishment of a new carrier-onboard-delivery (COD) squadron that will be the Navy’s first squadron to operate the new CMV-22B Osprey tiltrotor transport aircraft. A CMV-22B training group also will be established.

Fleet Logistics Multi-Mission Squadron 30 (VRM-30) will be

established at Naval Air Station (NAS) North Island, California, on Oct. 1, according to an internal Navy directive. When equipped with CMV-22Bs, VRM-30 will deploy detachments of CVM-22Bs with each carrier air wing from the West Coast and Japan, succeeding the C-2A Greyhound COD aircraft of Fleet Logistics Support Squadron 30 (VRC-30).

To support the Navy's transition from the C-2A to the CMV-22B, the Naval Aviation Training Support Group (NATSG) will be established the same date at Marine Corps Air Station New River, North Carolina, where the Marine Corps' V-22 fleet replacement squadron, Marine Medium Tiltrotor Training Squadron 204 (VMMT-204) is based. The NATSG will "liaise with the United States Marine Corps, and oversee United States Navy pilot, aircrew, and aircraft maintenance personnel through the training pipeline at VMMT-204," the directive said.

Currently a detachment of Commander, Airborne Command & Control and Logistics Wing, the type wing for the two VRC squadrons as well as the E-2D squadrons, supervises the Navy's V-22 training at New River.

Eventually, a new type wing will be established at North Island as the reporting command for the two planned VRM squadrons, VRM-30 and VRM-40, the latter squadron being planned to replace VRC-40, the C-2A squadron based at Norfolk, Virginia.

Also, a third squadron VRM-50, eventually will be established at North Island as the fleet replacement squadron for the CMV-22B community when the training shifts from New River.

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# SECNAV Spencer: Navy, Marine Corps 'More Ready, Lethal' Now than Last Year

ARLINGTON, Va. – The civilian head of the Department of the Navy said that measures taken over his first year in office have improved the condition of the Navy and Marine Corps forces and enabled future growth of the fleet.

“We’re a more ready and lethal force than we were last year – in both services,” said Navy Secretary (SECNAV) Richard V. Spencer, speaking Aug. 7 to reporters at a media roundtable in the Pentagon.

Spencer said that as he dove into his job last year he “did not have a full appreciation of the readiness hole, how deep it was, how wide it was.”

Having commissioned his Strategic Readiness Review, Spencer set out to change the culture of the Navy and Marine Corps, adopting best practices from corporations that executed successful turnarounds from crises.

A data sheet for the roundtable said that “all of the recommendations of the Readiness and Reform Oversight Council are in progress; 78 will be implemented by the end of the fiscal year (out of 111 under review).”

Spencer cited improvements in aviation readiness, particularly progress in processing aircraft through depot-level maintenance and saving labor time when the aircraft were returned to their squadrons.

Regarding sustainment, Spencer said the historical emphasis on acquisition of new systems lacked focus on sustainment over the life of the systems. He said the Navy is trying to bake

that sustainment into the total process.

Surface ship maintenance, which the Navy has struggled to sustain for years, is an area that remains of concern to the secretary.

“We have a capacity issue that we are going to have to deal with,” he said, a challenge that will increase as the fleet grows to the mandated 355-ship battle force.

One measure undertaken by the secretary was to streamline and clarify the chain of accountability, with the type commander being “the belly button that’s responsible for the maintenance of the ships.”

Regarding the Optimized Fleet Response Plan’s record of ships emerging from planned maintenance on time, Spencer said he had seen demonstrable evidence that it’s better.

“I’ve seen little pockets of sunshine here and there. This is getting to the mantra that ‘You’ve got to keep to schedule.’ What will it take to get us back to a fleet schedule? That is about two years away.”

He also cited a savings of approximately \$4 billion with multi-year procurements of the Virginia-class attack submarine, the F/A-18 Super Hornet strike fighter, the E-2D Advanced Hawkeye early warning aircraft and the SM-6 surface-to-air missile.

Talking with defense industry representatives was critical to acquisition success and sustaining readiness, he said. He also pointed out that shared risk results in shared benefits, and that industry needs to make a profit to be able to provide the needed weapons.

The SECNAV also pointed out success in strengthening U.S. partners and allies with new and more weapons, with \$25 billion of Foreign Military Sales (FMS).

“FMS now operates at the speed of relevance,” he said.

Spencer also pointed to the new initiative to develop a hypersonic weapon was benefiting from inter-service cooperation, with a tri-service memorandum of agreement in place to synchronize resources and expertise.

The focus on continuous education of the acquisition work force has yielded good results, he said, with 97 percent of the 55,000 workers having earned their respective certifications.

In a wrap-up, Spencer said that “we’re going to get to 355 [ships] – I’m totally convinced.

“We’re going to have to self-fund some of our expansion,” he added later in response to a reporter’s question.

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## **Navy’s Next Carrier Shuffle Slated**

ARLINGTON, Va. – The Navy has announced plans for its next shuffle of nuclear-powered aircraft carriers (CVNs), a quadrennial event governed by the Refueling and Comprehensive Overhaul (RCOH) schedule of the Nimitz-class and, in this case, also including another shift of homeport for maintenance.

In an Aug. 2 release, a spokesman for the commander, Naval Air Forces, announced “that three Nimitz-class aircraft carriers, USS Carl Vinson (CVN 70), USS Abraham Lincoln (CVN 72) and USS John C. Stennis (CVN 74) will conduct homeport shifts.

“USS Abraham Lincoln, currently located in Norfolk, Virginia,

will rejoin the Pacific Fleet, making San Diego [Coronado, California] its homeport," the release said. "Abraham Lincoln, commissioned in 1989, previously served in the Pacific Fleet from 1990-2011 before moving to Norfolk for midlife refueling."

USS George Washington (CVN 73) currently is going through its mid-life RCOH at Newport News Shipbuilding, which typically takes up four years and extends the life of a carrier up to 50 years. The RCOH of the Nimitz class is more than halfway completed. The fleet includes 10 Nimitz-class CVNs.

The announcement also said that John C. Stennis [CVN 74], commissioned in 1995 and currently homeported in Bremerton, Washington, will change homeport to Norfolk in advance of its RCOH.

The Navy also announced that USS Carl Vinson (CVN 70) will conduct a homeport change from Coronado to Bremerton "in advance of its docking-planned incremental availability at Puget Sound Naval Shipyard."

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## **Navy's Newest Carrier-Based Catapult, Trap Systems Steadily Advance Through Test**

PATUXENT RIVER, Md. – One year ago, the Navy's newest aircraft launch and recovery systems successfully conducted historic first sorties aboard the USS Gerald R. Ford . Today, the Electromagnetic Aircraft Launch System (EMALS) and Advanced Arresting Gear (AAG) progress through comprehensive test programs, Naval Air Systems Command (NAVAIR) said in a July 27

release.

“Data from shipboard testing indicates that both EMALS and AAG have demonstrated improved reliability projections over the solely land-based testing,” said Capt. Steve Tedford, former Aircraft Launch and Recovery Equipment (PMA 251) program manager.

Reliability is a key performance parameter for any new aircraft system, ensuring operational readiness for the fleet. EMALS and AAG are being put through the rigors to ensure they meet developmental milestones. Single-day shipboard operations show that both systems are capable of meeting operational requirements.

The EMALS and AAG teams, along with industry partner General Atomics, have developed numerous engineering changes to support the systems’ continued maturity and reliability growth, Tedford said.

Program management for both systems is multifaceted, and beyond the complex developmental engineering and test programs, the EMALS and AAG teams have remained focused on several critical support areas. In-depth logistics efforts have been underway to ensure adequate spares planning for the completion of the testing and full life cycle of these critical systems; to create the maintenance requirement cards and tools Sailors will use to operate and maintain the new systems; and to provide those Sailors with interim and permanent training solutions.

To date, Sailors from CVN 78 have been trained on EMALS and AAG. Development of a curriculum and instruction of system-specific courses has been conducted by the General Atomics and Navy team.

“We are extremely pleased to see how well General Atomics’ EMALS and AAG operations and maintenance training program has served CVN 78 Sailors at both our Shipset Controls laboratory

in San Diego and at NAVAIR's land-based test sites," said Scott Forney, president of General Atomics Electromagnetic Systems Group.

"The dedicated EMALS and AAG teams have excelled in overcoming numerous challenges and will continue charging ahead, completing these concurrent test programs, continually increasing confidence in these technologies and getting both systems mission ready," said Tedford.

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## **Courtney Urges Pentagon to Keep Columbia-Class Funding Separate**

WASHINGTON – The provision for separate funding for the Columbia-class ballistic-missile submarine program is not being followed by Pentagon budget officials, which could "put tremendous pressure on the rest of the shipbuilding account," the top Democrat on the House Armed Services Seapower and Projection Forces subcommittee said July 24.

Rep. Joe Courtney, D-Conn., noted that in 2014 he and former Rep. Randy Forbes, R-Va., then-chairman of the Seapower panel, introduced legislation to create the National Sea-based Deterrent Fund to provide funding for the Ohio-replacement submarine.

"We proposed to take funding for the Columba-class program out of the shipbuilding account as a way of taking the pressure off the rest of the Navy's fleet, that was under its own pressures due to the existing [budget] top lines," Courtney told a Mitchell Institute breakfast.

The legislation was passed and still is law, he said.

“But the real question is whether the Pentagon will treat it as really a separate account,” he said.

Right now, Columbia still comes out of overall pie that pays for shipbuilding.

“It’s still got issues as far as the budget folks over in the Pentagon,” said Courtney, who represents a Connecticut district that includes the New London submarine base and the Electric Boat submarine construction yard.

Currently, funding for Columbia is relatively low, paying for final design and fabrication of the missile compartments. But with an estimated price tag of more than \$7 billion each, paying for Columbia construction would “put a big hole in shipbuilding,” he said.

Full construction of the first Columbia is scheduled to start in fiscal 2021. A total of 12 are planned, to replace the 14 Ohio-class boats that are nearing the end of their service lives.

“This has been a totally a non-contested issue,” Courtney said.

There have been a lot of complaints about the enormous cost of the entire program to modernize all three legs of the nuclear deterrent triad, with the Air Force working to replace its Minuteman III intercontinental ballistic missiles and buying the B-21 bomber to replace the B-52s and B-2s in the nuclear delivery mission.

But, Courtney said, “the sea-based deterrent, I think, is the least-contested leg of the triad.”

He noted that the compromise version of the fiscal 2019 National Defense Authorization Act was approved by House-Senate conferees the previous evening and probably would be

passed in the House on July 26.

The bill provides “roughly \$3 billion,” for Columbia detail prototyping and construction of the missile compartments, which also will go into Great Britain’s new ballistic-missile sub, the Dreadnaught, Courtney said.

“The program is moving forward. Our biggest problem is to prevent any slowing down,” because the Ohios’ service life has been extended to 42 years, which is considered the absolute limit to their ability to submerge for deterrent patrols.

The first Columbia is expected to go into service when the first Ohio must retire.

The Navy missile boats are “the work horse of our national deterrence. ... To have one of the old ships go off line, and not have a Columbia ready to replace it, obviously would create risk,” Courtney said.

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## **LCS Anti-Submarine Warfare Mission Package Completes Two Testing Milestones**

WASHINGTON – The Navy’s Program Executive Office Unmanned and Small Combatants announced July 16 the successful completion of two littoral combat ship (LCS) Anti-Submarine Warfare (ASW) Mission Package testing milestones.

The first was a 10-day Dockside-1 test event on the Dual-mode Array Transmitter (DART) Mission System Towed Body and associated launch-and-recovery assembly components in Fort Pierce, Florida. The second was a full-power, in-water test of

the active array at the Naval Undersea Warfare Center Seneca Lake Detachment's test facility in Dresden, New York.

"The Seneca Lake test was a huge step forward for the DART System and the ASW Mission Package as a whole," said Capt. Ted Zobel, LCS Mission Module program manager. "This revolutionary technology is critical to countering the rising submarine threats worldwide."

The array previously was tested at Raytheon's shallow-water facilities in Portsmouth, Rhode Island. This test on Seneca Lake was the first opportunity for the new technology to be demonstrated in an open-water test environment, which allows better understanding of how the system will perform when deployed on an LCS. The successful completion of this test event provided Navy officials and industry partners valuable information on performance specifications and options for future modifications.

DART development includes incremental testing of the individual system components followed by progressively more inclusive integration and testing until the full ASW Mission Package has been tested.

The Dockside-1 test a week prior to the Seneca Lake event had LCS Sailors overseeing and actively engaging in the operation of the DART Mission System at the Florida Atlantic University Harbor Branch Oceanographic Institute's waterside product integration, assembly and test complex.

Dockside-2 testing, planned for the fall, will expand the scope of DART system integration to add three additional Raytheon mission modules to complete the system. The Navy will take delivery of the DART Mission System from Raytheon later this year and plans to take the system to the Atlantic Undersea Test and Evaluation Center early next year for additional testing.