USS Wyoming Successfully Tests Trident II D5LE Missiles

The U.S. Navy conducted a scheduled, two-missile test flight of unarmed life-extended Trident II (D5LE) missiles from USS Wyoming (SSBN-742), an Ohio-class ballistic missile submarine, on the Eastern Test Range off the coast of Cape Canaveral, Florida, Sept. 17. *U.S. NAVY*

WASHINGTON – The U.S. Navy conducted a scheduled, two-missile test flight of unarmed life-extended Trident II (D5LE) missiles from USS Wyoming (SSBN 742), an Ohio-class ballistic-missile submarine, on the Eastern Test Range off the coast of Cape Canaveral, Florida, Sept. 17, the From U.S. Navy Strategic Systems Programs office said in a Sept. 18 release.

This successful test was part of a Demonstration and Shakedown Operation, designated DASO-31. The primary objective of a DASO is to evaluate and demonstrate the readiness of the SSBN's Strategic Weapon System (SWS) and crew before operational deployment following the submarine's engineered refueling overhaul.

"The DASO test, and others like these, underscore our readiness and capability for 21st Century Strategic Deterrence," said Rear Adm. Thomas E. Ishee, U.S. Strategic Command's director of Global Operations. "SSBN crews undergo constant training and regularly planned testing to ensure the weapons systems remain ready and reliable. The Sailors and support element who make up the silent service prove every day they are capable and prepared to protect America and its allies."

This launch marks 184 successful missile test flights of the Trident II (D5 & D5LE) SWS.

“Today’s [Sept. 17] test demonstrates the unmatched reliability of our sea-based nuclear deterrent, which is made possible by a dedicated team of military, civilian and industry partners who bring expertise and dedication to the mission that is truly extraordinary,” said Vice Adm. Johnny R. Wolfe, director of the Navy’s Strategic Systems Programs. Further, “This same team is now developing the next generation of the Trident Strategic Weapon System, which will extend our sea-based strategic deterrent through 2084.”

The Trident strategic weapon system is highly accurate and reliable, according to the release. The Trident II (D5) missiles recently underwent a life extension program to address potential impacts from aging and obsolescence. The life-extended missiles – Trident II (D5LE) – are now being deployed to the Fleet and will serve for the remaining service life of U.S Ohio-class and United Kingdom Vanguard-class SSBNs, and as the initial load-out for the U.S. Columbia-class and U.K. Dreadnought-class SSBNs.

USS Maine (SSBN 741) successfully executed the Navy’s last DASO in February 2020 off the coast of San Diego, California. The Navy’s most recent flight test – a Commander’s Evaluation Test – was a series of four launches in February 2021 off the coast of Florida. Each of these flight tests were of the life-extended Trident II (D5LE) missiles.

Flight test missiles are not armed, and safety of the public and the crew conducting the mission is paramount, the release stated. The launches were conducted from the sea, the missile flew over the sea and landed in the sea. At no time did the missile fly over land.

The missile test was not conducted in response to any ongoing world events, nor as a demonstration of power. Test launches – including DASOs – are scheduled years in advance.

A credible, effective nuclear deterrent is essential to our

national security and the security of U.S. allies. Deterrence remains a cornerstone of national security policy in the 21st century.

Strategic Systems Programs is the Navy command that provides cradle-to-grave lifecycle support for the Navy's strategic weapon systems. This includes training, systems, equipment, facilities and personnel responsible for ensuring the safety, security- and effectiveness of the nation's Submarine Launched Ballistic Missile (SLBM) Trident II (D5LE) strategic weapon system.

SLBMs are the sea-based leg of the nation's strategic nuclear deterrent Triad that also includes the U.S. Air Force's intercontinental ballistic missiles (ICBM) and nuclear-capable bombers. Each part of the Triad provides unique capabilities and advantages.

The sea-based leg makes up the majority – approximately 70% – of the U.S.'s deployed strategic nuclear deterrent Triad. The SLBM is the most survivable leg of the triad, provides a persistent presence, and allows for flexible concepts of operations.

SECNAV Impressed with Improvements in Surface Warfare Training

Secretary of the Navy Carlos Del Toro gives remarks during an event at the International Seapower Symposium. *U.S. NAVY / Chief Mass Communication Specialist Nicholas Brown*

ARLINGTON, Va. – Just five weeks into his tour as secretary of the Navy (SECNAV), Carlos Del Toro has checked up on the training and readiness of the Navy's surface warfare ship crews and likes what he sees.

"Crew readiness and training is incredibly important. It is the utmost responsibility of the commanding officer at sea, and I would argue that it is the utmost responsibility of the secretary of the Navy in the Pentagon," Del Toro said, speaking Sept. 17 at a media virtual roundtable after his return from Newport, Rhode Island, where he attended the 24th International Seapower Symposium.

As a former destroyer commanding officer, Del Toro was asked by *Seapower* about whether he had concerns about issues with surface warfare crew training and readiness that came to light in 2017 with the collisions of the Arleigh Burke-class guided-missile destroyers USS Fitzgerald and USS John McCain, both of which resulted in the deaths of crew members.

"I've taken a hard look at this over the last five weeks," the SECNAV said. "I've even gone up to Surface Warfare Officers School as well to meet with the leadership and junior officers up there. I have a lot of experience in this arena being a former commanding officer that sailed in those Pacific waters.

"I am overly impressed with the major investments that have been made subsequent to those two horrific disasters that we had," he said. "It's really apparent to me that the entire surface community has come together – I would argue that the entire Navy has come together – in very serious ways with major, major investments in technology, in training [and] in trying to understand the cultural impacts of decisions that have been made in the past on the surface warfare community. We have come out of this like a shining star. When I look at the professionalism of our junior officers, our mid-grade officers today, the changes that were made to the executive

officer pipeline [and] commanding officer pipeline, I have really been blown away these past two weeks, really taking a deep dive into all those issues."

Del Toro said that while in Newport this week he "spent a substantial amount of time up there taking a look at their curricula, their training, their simulators. For example, just alone in the world of simulators for their training – the pilot house, the combat information center – it was so impressive."

The SECNAV said that he is "really of the belief that we've come a long way here and that we have largely corrected the deals of the past that have been made and we're on the right path moving forward. And of course, we will continue to give this our utmost attention because the safety and the effect of our operation of out Navy vessels is of utmost importance."

Ingalls Shipbuilding Completes Acceptance Trials for DDG Frank E. Petersen Jr.

Frank E. Petersen Jr. (DDG 121) navigates in the Gulf of Mexico during bravo trials. *HUNTINGTON INGALLS INDUSTRIES*
PASCAGOULA, Miss. – Huntington Ingalls Industries' Ingalls Shipbuilding division has completed the final round of sea trials for Arleigh Burke-class guided missile destroyer Frank E. Petersen Jr. (DDG 121), the company announced Sept. 17.

"The successful completion of acceptance trials is an extremely rewarding accomplishment for Ingalls and for our

partners who work closely with us to ensure we achieve this milestone together," Ingalls Shipbuilding President Kari Wilkinson said. "We are proud of our shipbuilders for working as a team to move DDG 121 one step closer to delivery."

DDG 121 is named for Frank E. Petersen Jr., the U.S. Marine Corps' first African-American aviator and general officer. After entering the Naval Aviation Cadet Program in 1950, Petersen would go on to fly more than 350 combat missions during the Korean and Vietnam wars.

Ingalls has delivered 32 destroyers to the Navy and currently has four more under construction including Lenah Sutcliffe Higbee (DDG 123), Jack H. Lucas (DDG 125), Ted Stevens (DDG 128) and Jeremiah Denton (DDG 129).

Arleigh Burke-class destroyers are highly capable, multi-mission ships and can conduct a variety of operations, from peacetime presence and crisis management, to sea control and power projection. The guided missile destroyers are capable of simultaneously fighting air, surface and subsurface battles. The ship contains a myriad of offensive and defensive weapons designed to support maritime defense well into the 21st century.

Foundation Honors Sen. John Warner, Premieres Film About Elvis's Contribution to USS

Arizona Memorial

The promotional poster for the new film about Elvis Presley's fundraising efforts for the USS Arizona Memorial. *WORLD WAR II FOUNDATION*

The World War II Foundation held a world premiere for its newest production, "Elvis and the USS Arizona," and honored the late Sen. John Warner at the Kennedy Center in Washington, D.C. this past week.

Warner received the foundation's Senator Bob Dole World War II Leadership Award, presented annually to "an individual of the Greatest Generation or their family who as an individual reflects the values of self-sacrifice, public service and everlasting commitment to our nation's principles of freedom and democracy."

The presentation was made to Warner's wife, Jeanne, by Secretary of Veterans Affairs Denis McDonough, with keynote remarks by Chairman of the Joint Chiefs of Staff Gen. Mark Milley. CNN's Jake Tapper served as master of ceremonies.

The film, produced by Tim Gray and narrated by Jim Nantz with Kyle Chandler, will air on public televisions this fall. It recounts the contribution made by the wildly popular performer, Elvis Presley, and his sold-out performance on March 25, 1961, at Bloch Arena on Naval Station Pearl Harbor to raise money to complete the USS Arizona Memorial. Presley was in Hawaii filming his movie, "Blue Hawaii."

The Elvis Presley benefit raised over $60,000 for the USS Arizona Memorial and brought awareness of the fundraising effort. The memorial was completed and officially dedicated in 1962. Presley would visit the Arizona Memorial every time he performed in Hawaii.

Today, the USS Arizona Memorial is the most visited location

in Hawaii, thanks in large part to Elvis Presley.

The mission of the nonprofit World War II Foundation is to tell the personal stories of those who were swept up in the most devastating conflict known to man and make these films accessible for free to students, educators, classrooms and the global public.

“Our documentaries rank in the top five of most requested programs nationally on American Public Television stations,” said Gray.

USS Curtis Wilbur Arrives in New Homeport, San Diego

The Arleigh Burke-class guided-missile destroyer USS Curtis Wilbur (DDG 54) arrives in San Diego to conduct a homeport shift from Yokosuka, Japan. Curtis Wilbur was commissioned in 1994 and has been in Yokosuka, Japan since September 1995, making her the longest forward-deployed naval asset in recent history. *U.S. NAVY / Mass Communication Specialist 1st Class Julio Rivera*

SAN DIEGO – The Arleigh Burke-class guided-missile destroyer USS Curtis Wilbur (DDG 54) arrived in its new homeport of Naval Base San Diego after 25 years as a forward-deployed ship in Yokosuka Japan, Sept. 16, the commander, Naval Surface Force, U.S. Pacific Fleet said in a release.

Commander, Naval Surface Force, U.S. Pacific Fleet (CNSP) directed Curtis Wilbur to return to San Diego for scheduled maintenance. Following routine repairs and upgrades, the ship will join U.S. 3rd Fleet, which leads naval forces in the Indo-Pacific and provides the realistic, relevant training

necessary for an effective global Navy.

“Following 25-plus years of service in the forward-deployed naval forces Japan, Curtis Wilbur, her crew, and our families are excited to arrive to our new homeport of San Diego,” said Cmdr. Anthony Massey, commanding officer of USS Curtis Wilbur. “We bring with us our ‘Steel Hammer’ professionalism and proud history of service and look forward to preparing for, and executing, operations in support of 3rd Fleet and [the Indo-Pacific].”

In the months leading up to the ship’s change in homeport, Curtis Wilbur deployed to the South China Sea and conducted anti-submarine warfare tasking, a bilateral exercise with the Royal Australian Navy, and freedom of navigation operations, including two transits of the Taiwan Strait.

Curtis Wilbur was commissioned in 1994 and joined U.S. 7th Fleet in Yokosuka, Japan in September 1995, making it the longest forward-deployed naval asset in recent history. In its previous area of operations, Curtis Wilbur is known for forging and strengthening relationships with like-minded naval forces, as well as its demonstrated lethality in warfare exercises.

With an advanced Aegis Ballistic Missile Defense suite as the mainstay of Curtis Wilbur’s capabilities, the ship will be a unique asset to U.S. 3rd Fleet. While Curtis Wilbur’s primary mission set provides defense against hostile ballistic missiles, the ship is also proficient in multiple warfare missions including anti-air, anti-submarine, anti-surface, and strike warfare. Curtis Wilbur’s capabilities are amplified by the training and readiness of the crew, many of which are veterans of the high operational tempo found in U.S. 7th Fleet.

USS John S. McCain Departs U.S. 7th Fleet After 24 Years Forward Deployed

The Arleigh Burke-class guided-missile destroyer USS John S. McCain (DDG 56) departs Commander Fleet Activities Yokosuka (CFAY) while shifting its homeport to Naval Station Everett, Washington, and bringing an end to 24 years of being forward-deployed to U.S. 7th Fleet. *U.S. NAVY / Ryo Isobe*

YOKOSUKA, Japan – The Arleigh Burke-class guided-missile destroyer USS John S. McCain (DDG 56) departed Yokosuka, Japan, Sept. 17 as part of a scheduled homeport shift to Naval Station Everett, Washington, said Lt. j.g. Marion Bautista, USS John S McCain Public Affairs, said in a release.

While forward deployed to Fleet Activities Yokosuka, John S. McCain has operated independently and with carrier strike groups in the region since arriving to U.S. 7th Fleet in the summer of 1997.

“John S. McCain and her Sailors have proven time and time again our Navy’s resolve to answer the call-in support of our nation and our allies,” said Cmdr. Tin Tran, USS John S McCain’s commanding officer. “After 24 years of faithful overseas service, we are ready to head back home to America, back to Washington state. Our Sailors will forever remember the bonds of friendship and hospitality Japan has shown us.”

During 24 years of forward-deployed service, John S. McCain operated across the region from the Indian Ocean to the Sea of Japan supporting joint and multinational exercises and operations to strengthen U.S. alliances and partnerships,

maritime security, and promote regional stability toward a free and open Indo-Pacific.

John S. McCain also participated in several surge deployments to U.S. 5th Fleet in support of the USS Independence battle group in 1998 and USS Kitty Hawk strike group in 2002 and again in 2003 supporting Operations Enduring and Iraqi Freedom.

During the most recent seven-month deployment, John S. McCain participated in the annual multinational exercise MALABAR alongside the Indian Navy, Japan Maritime Self-Defense Force and Royal Australian Navy, focusing on anti-submarine and anti-surface operations.

In March, 2011, John S. McCain responded in support of Operation Tomodachi to provide humanitarian assistance following the Tohoku earthquake and tsunami.

“It is definitely a changing of the guard with USS John S. McCain and her crew departing the 7th Fleet after over 24 years in Japan,” said Capt. Chase Sargeant, commander, Task Force 71/Destroyer Squadron 15. “The contributions of the current and all previous crews in defending peace and stability in the Indo-Pacific cannot be overstated, and the entire forward-deployed fleet wishes John S. McCain fair winds as she transfers to her new homeport of Everett, Washington.”

John S. McCain is scheduled to join U.S. 3rd Fleet, which leads naval forces in the Indo-Pacific and provides the realistic, relevant training necessary for an effective global Navy. U.S. 3rd Fleet works consistently with U.S. 7th Fleet to complement one another and provide commanders capable, ready assets across the spectrum of military operations in the Indo-Pacific.

Boeing to Build New Factory in Illinois to Produce MQ-25 Stingray

Boeing will build the U.S. Navy's MQ-25 Stingray unmanned aerial refueler at a new 300,000 square foot facility at MidAmerica St. Louis Airport in Illinois. The facility will feature state-of-the-art manufacturing processes and tools, including robotic automation and advanced assembly techniques, to improve product quality and employee ergonomics. *BOEING*

ST. LOUIS – Boeing will build the Navy's newest carrier-based aircraft at a new high-tech facility in Illinois, bringing the benefits of digital aircraft design and production to the Navy and up to 300 advanced manufacturing jobs to the greater St. Louis region, the company said Sept. 17.

The new 300,000 square-foot facility at MidAmerica St. Louis Airport, scheduled for completion in 2024, initially will employ approximately 150 mechanics, engineers and support staff who will build the MQ-25 Stingray, the Navy's first operational, carrier-based unmanned aircraft. Employment could reach up to 300 with additional orders.

"The world's largest aerospace company is doubling down on Illinois because of our unparalleled assets in the transportation and logistics sector and the world-class talent of our people," said Gov. J.B. Pritzker. "To prepare our communities for the future, my administration is committed to making continued investments that will modernize our airports, spark new innovation and bring jobs and economic opportunities to our communities from Chicago to St. Clair and beyond. I

want to thank the Boeing company for their vote of confidence in Illinois, as well as St. Clair County leadership and the MidAmerica Airport team for giving companies another reason to choose Illinois."

Boeing digitally engineered the entire MQ-25 aircraft and its systems, resulting in high-fidelity models that are used to drive quality, efficiency and flexibility throughout the production and sustainment process. The new MQ-25 facility will include state-of-the-art manufacturing processes and tools, including robotic automation and advanced assembly techniques, to improve product quality and employee ergonomics.

"The team and state-of-the-art technology we're bringing to the Navy's MQ-25 program is unprecedented, and we're incredibly proud to be expanding both as we build the future of autonomous systems in Illinois," said Kristin Robertson, vice president and general manager of Autonomous Systems, Boeing Defense, Space & Security. "We've received great support from MidAmerica Airport and countless dedicated employees, and we're excited to build the Navy's first operational, carrier-based unmanned aircraft right here in the Metro East."

For two years, Boeing and the Navy have been flight testing the Boeing-owned MQ-25 test asset from MidAmerica Airport, where in recent history-making missions T1 has refueled an F/A-18 Super Hornet, an E-2D Hawkeye and an F-35C Lightning II.

The U.S. Navy intends to procure more than 70 MQ-25 aircraft to help extend the range of the carrier air wing, and the majority of those will be built in the new facility. Boeing is currently producing the first seven MQ-25 aircraft, plus two ground test articles, at its St. Louis facilities, and they will be transported to MidAmerica for flight test. The MQ-25 program office, including its core engineering team, will

remain based in St. Louis.

The new MQ-25 facility will be in addition to existing manufacturing operations at Boeing St. Clair, which produces components for the CH-47 Chinook, F/A-18 Super Hornet, F-15 and other defense products.

General: Marines Need to Be 'Grander Thinkers'

Lt. Gen. Kevin M. Iiams, commanding general, Training and Education Command, during his frocking ceremony in Quantico, Virginia, Aug. 3. *U.S. MARINE CORPS / Lance Cpl. Jesse Schremmer*

ARLINGTON, Va. – In a potential future of distributed warfare, Marines on the scene need to be able to have a greater understanding of strategy and operations as well as tactics and technology, the Marine Corps' training boss said.

"How do find Marines who are … ready to execute mission-type orders and have strategic level effect with tactical-level decision making?" asked Lt. Gen. Kevin Iiams, commanding general Training and Education Command, speaking Sept. 16 in a Defense One webinar.

"We need to be very, very deliberate in the way we groom our young Marines looking to the future and ensure that we imbue them with not only the right knowledge moving forward but the right education is important," Iiams said. "We need to make them much grander thinkers, very good critical thinkers because what we're going to expect them to do in some of these remote places."

The general posited a case of a future young captain “with his MLR [Marine Littoral Regiment] force step off the light amphibious warship on some remote archipelago island. He will start to sense his surroundings, and then he’s going to have to start making decisions, because if he is in a denied, degraded, contested environment where [an enemy] is trying to ensure that he or she does not have all of the communications reach-back that one might need to make decisions, have we trained that individual properly?”

Iiams said “these decisions are going to be carried out in distributed maritime operations and expeditionary advanced base operations [EABO]. We’re just now starting to figure out what these actually mean as we look to the future. What does an EABO look like? How do we run one? How do we protect one?”

The general said one challenge is breeding a “new generation of Marines that are more tech-savvy,” but on the other hand, more maturity is needed in the traditionally young Marine Corps personnel.

“We need them to be older to make these mature decisions,” Iiams said, noting that recruiting, training and maturing the needed Marines is likely to be more costly.

He said the Corps needs to maintain an intellectual overmatch over the nation’s adversaries.

US, UK Australia Form Trilateral Partnership, Start

Australian Nuclear Submarine Project

The Virginia-class fast-attack submarine USS New Mexico (SSN 779) returns to its homeport of Naval Station Norfolk, Sept. 15, 2021. *U.S. NAVY / Mass Communication Specialist 1st Class Alfred Coffield*

ARLINGTON, Va. — The United States, the United Kingdom, and Australia have formed a tri-lateral defense partnership, which soon will launch a project to develop and build nuclear-powered submarines for the Royal Australian Navy.

Australia operates Collins-class diesel-electric submarines and was in the process of procuring 10 submarines in a partnership with France, a deal that is likely to be torpedoed by the new AUKUS partnership.

At the White House Sept. 15, the presidents of the three nations spoke at the news conference announcing the AUKUS partnership.

“The first major initiative of AUKUS will be to deliver a nuclear-powered submarine fleet for Australia,” said Australian Prime Minister Scott Morrison. “Over the next 18 months, we will work together to seek to determine the best way forward to achieve this. This will include an intense examination of what we need to do to exercise our nuclear stewardship responsibilities here in Australia. We intend to build these submarines in Adelaide, Australia, in close cooperation with the United Kingdom and the United States.

The project would represent a major industrial enterprise in a nation with no experience in building and operating nuclear submarines. Australia has built modern surface warships, including high-end anti-air warfare destroyers.

U.K. Prime Minister Boris Johnson seconded the partnership.

“I’m delighted to join President Biden and Prime Minister Morrison to announce that the United Kingdom, Australia, and the United States are creating a new trilateral defense partnership, known as AUKUS, with the aim of working hand in glove to preserve security and stability in the Indo-Pacific,” Johnson said. “We’re opening a new chapter in our friendship, and the first task of this partnership will be to help Australia acquire a fleet of nuclear-powered submarines, emphasizing, of course, that the submarines in question will be powered by nuclear reactors, not armed with nuclear weapons. And our work will be fully in line with our non-proliferation obligations.”

“This will be one of the most complex and technically demanding projects in the world, lasting for decades and requiring the most advanced technology,” Johnson said. “It will draw on the expertise that the U.K. has acquired over generations, dating back to the launch of the Royal Navy’s first nuclear submarine over 60 years ago; and together, with the other opportunities from AUKUS, creating hundreds of highly skilled jobs across the United Kingdom, including in Scotland, the north of England, and the Midlands, taking forward this government’s driving purpose of leveling up across the whole country.”

“Our governments will now launch an 18-month consultation period to determine every element of this program – from workforce, to training requirements, to production timelines, to safeguards and nonproliferation measures, and to nuclear stewardship and safety – to ensure full compliance with each of our nation’s commitments under the Nuclear Non-Proliferation Treaty,” said President Joseph Biden.

AT&T, Naval Postgraduate School to Jointly Research 5G, Edge Computing Solutions

A Naval Postgraduate School deployment plan for the 5G and edge computing work. *NAVAL POSTGRADUATE SCHOOL*

AT&T and the Naval Postgraduate School (NPS) have entered into an agreement to explore and develop 5G and edge computing-based maritime solutions aimed at benefitting national defense, homeland security, and industries such as shipping, oil and gas, recreational boating and more.

The NPS and AT&T experiments with 5G and edge computing are expected to result in the identification of advanced technology solutions such as a connected system of unmanned and autonomous vehicles that can improve critical elements of national defense, such as multi-domain situational awareness, command and control, training, logistics, predictive maintenance and data analytics.

The research includes the use of edge computing, where data is processed locally near a device to speed the completion of computing tasks.

The parties entered into a three-year Collaborative Research and Development Agreement (CRADA). Under the agreement, super-fast, low latency AT&T 5G networking and edge computing capabilities will support a broad array of 5G-focused experiments on NPS facilities incorporating artificial intelligence, robotics, internet of things, machine learning, data analytics and smart base solutions.

As part of the CRADA, one initiative is the NPS' Sea Land Air Military Research (SLAMR) program. SLAMR conducts activity at Camp Roberts in South Monterey County, California, and, to a lesser extent, on the NPS main campus and at SLAMR's beach lab north of the main campus in Monterey.

The NPS SLAMR program will explore the development of 5G and edge computing-powered sea applications that connect crewed and non-crewed vessels and sensors. Experiments will be conducted within the SLAMR's multi-domain laboratory. The program is also focused on providing all-domain maritime solutions for a broad array of defense, industry and commercial applications.

The vision guiding the SLAMR program is to eventually have a command and aquatics operations facility with which to perform localized, unmanned aerial, surface, and underwater robotic vehicle activity. It is expected the facility and some of the experimental vehicles will be connected and powered by AT&T networking capabilities, including 5G and edge computing services.

The placement of AT&T's 5G networking infrastructure is underway at NPS in accordance with a real estate license. It includes a tower and a short-range antenna on a prefabricated pad to be located at the SLAMR beach lab within walking distance from the main NPS campus. A key goal of the equipment placement is ease of access for faculty and students conducting autonomous vehicle research at a former waste-water treatment facility on the site.