Lockheed Martin Tests Long-Range Anti-Ship Missiles for Super Hornet Requirement

ORLANDO, Fla. – Lockheed Martin announced on Wednesday it has successfully fired two production representative Long-Range Anti-Ship Missiles (LRASMs) from a U.S. Air Force B-1B.

In the event over the Sea Range at Point Mugu, California, a U.S. Air Force B-1B from Dyess Air Force Base, Texas, released the pair of LRASMs. The missiles navigated through all planned waypoints, transitioned to mid-course guidance and flew toward the moving maritime target using inputs from the onboard sensors. The missiles then positively identified the intended target and impacted succesfully.

“The success of this second dual-LRASM test event speaks volumes,” said David Helsel, LRASM director at Lockheed Martin Missiles and Fire Control. “As LRASM moves toward early operational fielding for the U.S. Air Force and U.S. Navy, the weapon system continues to demonstrate critical capabilities that our warfighter needs.”

LRASM is designed to detect and destroy specific targets within groups of ships by employing advanced technologies that reduce dependence on intelligence, surveillance and reconnaissance platforms; network links; and GPS navigation in contested environments. Lockheed Martin says the LRASM will play “a significant role” in ensuring military access to operate in open ocean, due to its enhanced ability to discriminate and conduct tactical engagements from extended ranges.

LRASM is a precision-guided, anti-ship standoff missile based on the Joint Air-to-Surface Standoff Missile – Extended Range. The air-launched variant provides an early operational

capability for the U.S. Navy's offensive anti-surface warfare Increment I requirement to be integrated onboard the U.S. Air Force's B-1B in 2018 and on the U.S. Navy's F/A-18E/F Super Hornet in 2019.

HMS Queen Elizabeth's U.K. Crew Finally Meets the F-35B

PATUXENT RIVER, Md. – Members of the flying control and flight deck control teams aboard HMS Queen Elizabeth (R08), flagship of the Royal Navy's new class of aircraft carriers, visited Naval Air Station Patuxent River, Maryland, this week for their first live peek at the F-35B Lightning II, ahead of the jet's first trials aboard the ship this fall, the F-35 Program Executive Office said in a May 22 release.

On May 22, about 20 members of the HMS Queen Elizabeth team witnessed F-35B test aircraft BF-02 and BF-04 taxi, perform two vertical landings apiece, and conduct a couple short takeoffs. The ground reverberated as each aircraft approached the tarmac for its vertical landings led by the F-35 Pax River Integrated Test Force team, hovering for several seconds prior to descending.

The next day, the ship's team took over and, acting as landing signal officers, taxied an F-35B for the first time. Persistent rain limited the team's activities on Thursday prior to their Friday departure back to the United Kingdom.

In terms of getting his personnel familiar with the F-35B, prior to this fall's ship trials off the U.S. eastern seaboard, the trip was a success, said Royal Navy Cmdr. James Blackmore, Commander Air aboard HMS Queen Elizabeth.

“It’s the first time they’ve ever seen the jet or been up and close to it as it’s performing its flight maneuvers, so they got to feel the environment of what it’s like, the sort of noise, the heat, the sound and the pressure of the aircraft, so that when it comes to deck for the first time, it’s not a surprise,” Blackmore said.

As HMS Queen Elizabeth’s “air boss,” Blackmore is in charge of all aviation activity onboard a ship “that’s been designed specifically for the F-35,” he said.

At roughly 65,000 tons, HMS Queen Elizabeth is much smaller than U.S. Navy carriers, but its flight deck and hangar are about the same size, Blackmore said. He noted the “key difference” between the two nation’s aircraft carriers is the Queen Elizabeth class’ flight deck, which is designed exclusively to handle helicopters and the F-35B, the short takeoff and vertical landing (STOVL) variant of the fifth-generation fighter.

“From the keel up, it’s all been about F-35 from day one,” he added.
For the U.K., the F-35B represents a much-anticipated return to carrier aviation, one that holds particular significance for Blackmore, who piloted the last Harrier flight off the HMS Ark Royal, the U.K.’s last aircraft carrier, in November 2010. Equally fitting, the Ark Royal’s captain at that time, Commodore Jerry Kyd, is now the captain of HMS Queen Elizabeth.

“I was fortunate enough to fly the last ever Harrier launched from a U.K. aircraft carrier in 2010, so if you like, I almost closed down what we used to do,” Blackmore said. “The fact that eight years later, I’m now here opening that back up with the team is really good.”

Blackmore called the F-35B “a step change for the U.K. in how we’re going to conduct business.”

“The fact that it’s F-35 is pivotal, because you’re in the fifth-generation game now with aircraft, which brings stealth, sensor fusion, advanced weapons, and the ability to project aviation and power ashore at your choosing,” he said.

NAVSEA Leadership: High-Velocity Learning Key to Expanding the Advantage

WASHINGTON – The two top leaders of Naval Sea Systems Command (NAVSEA) bookended the first high-velocity learning (HVL) summit to show their commitment to HVL, one of the pillars of the NAVSEA Campaign Plan to Expand the Advantage, the Naval Surface Warfare Center’s Carderock Division said in a May 17 release.

Jim Smerchansky, executive director for NAVSEA, opened the HVL summit held at Naval Surface Warfare Center (NSWC), Carderock Division in West Bethesda, Maryland, May 15-16. NAVSEA Commander Vice Adm. Thomas Moore closed the event, which brought representatives of NAVSEA commands together to discuss HVL tools, successes and opportunities.

With similar messages about the importance of high-velocity learning, both men described the need to increase the United States’ capabilities over its adversaries. The country is in an era of great power competition, namely with Russia and China, and according to both Smerchansky and Moore, NAVSEA’s vision to “expand the advantage” means contributing to the overall effort of the secretary of defense’s National Defense Strategy to broaden that capability gap.

“High-velocity learning is about mission accomplishment,” Smerchansky said. “Our obligation, our mission to the Navy and the nation is to deliver and provide warfighting systems and ships to the men and women of the country to never allow them to be in a fair fight. Our obligation to our workforce is to provide meaningful work and the right tools they need to be successful.”

Each of the speakers took questions from the audience, many of which were concerning the loss of knowledge that is expected as the more experienced employees retire.

In response to one such question, Smerchansky said instead of thinking of it as a transfer of knowledge to the next generation, people should consider a transfer of experience, meaning the more senior employees need to start turning their work over to the junior employees, allowing them to gain the experience necessary to work through problems.

“High-velocity learning can go right to the heart of that,” Smerchansky said. “This is the generation coming up that has to be able to look right; they have to count on the 75,000 people (within NAVSEA) to be part of their network to help them be successful.”

The idea of high-velocity learning originated from the book, “The High-Velocity Edge,” by Steven Spear. Chief of Naval Operations Adm. John Richardson adopted HVL as something every level of the organization should be achieving, as laid out in his plan “A Design for Maintaining Maritime Superiority.”

High-velocity learning can be explained with the four “S’s:” see, swarm/solve, share and sustain. Within this framework, decision making can be pushed to the lowest levels of the organizations, thereby empowering employees to gain the experience Smerchansky said they need.

During the summit, which included remarks by Rear Adm. Doug Small, Program Executive Office, Integrated Warfare Systems,

the attendees were able to experience their own “swarm.” NAVSEA’s PMS 391 (Team Subs) identified three challenges they have, specifically in modernization, acquisition and maintenance.

“We use these philosophies in hopes of becoming a true learning organization,” said Jana Patterson, a senior acquisition product engineer for Team Subs. “We are trying to figure out how to not only increase the throughput of modernization, but to improve upon our maintenance situation, the processes already in place.”

Patterson said the knowledge is at the waterfront with the people actually turning wrenches or ordering parts, and the people in service support, like her, need to hear from them.

“We are looking for ideas on how to empower that level of personnel out at the shipyards, whether they be private or government, to identify issues,” Patterson said.

The attendees split into three groups and spent about 45 minutes brainstorming the issues presented by Team Subs, working towards possible solutions, which is precisely what “swarming” is. They then came back together to share their results. Even though most of the people in the groups did not work in the submarine world, it was their own experiences that led to the possible solutions.

Patterson came away with several ideas, which she said she will take back to her work environment and see if there are opportunities to incorporate some of the possible solutions.

The idea of HVL is not only improving processes by seeing the problems and swarming them for solutions, but it’s also about sharing across the enterprise so the workforce is working smarter and continuing to expand the advantage.

“If you can’t spend a little bit of time doing strategic planning, high-velocity planning on what the future workforce

needs to look like, then we are kind of doomed to do what we've been doing over and over again," said Don McCormack, executive director for NSWC and Naval Undersea Warfare Center.

One of the common themes at the summit was communication as a barrier to high-velocity learning.

"The biggest challenge I have every day is effectively communicating to a workforce of 75,000 people," Moore said, acknowledging that sharing is going to naturally be the hardest part about HVL. "But if we really want to be a high-velocity learning organization, we have to be able to communicate and get it down to where it's culturally important for us to be working on this; it has to become second nature."

Moore said he expects the attendees of the HVL summit to become the change agents, relying on them to force the culture to change.

"The two things on the Campaign Plan that require the most work and that we've made the least amount of progress on, they are both ideas that are culture issues, a culture of high-velocity learning and a culture of affordability," Moore said. "Why are those things the hardest? Because culture in an organization is the absolute hardest thing to change, without a doubt."

Moore challenged the summit attendees to take the principles of high-velocity learning to the next level and find a way to get them ingrained into the culture, so that everybody is thinking about HVL.

"The high-velocity learning piece is probably the most key element to eventually getting to the vision to expanding the advantage," Moore said.

Geurts Closes Navy Unmanned Systems Secretariat, Citing Progress, Integration

ARLINGTON, Va. – The Navy has eliminated the position of its "drone czar" in its secretariat after only two and a half years, citing goals achieved and integration progress.

In an April 30 directive, James F. Geurts, assistant secretary of the Navy for Research, Development and Acquisition, directed the disestablishment of the Office of the Deputy Assistant Secretary of the Navy (Unmanned Systems) (DASN(UxS)) effective May 7.

Under then-Navy Secretary Ray Mabus, the Navy established DASN(UxS) to put appropriate bureaucratic horsepower and centralized leadership behind the development of unmanned systems. Mabus made the announcement on Oct. 27, 2015, that retired Marine Brig. Gen. Frank Kelley would be the first head of the office.

Geurts cited the completion of the Navy Department's comprehensive Unmanned Systems Roadmap and its submission to Congress as "a logical point to move forward as expressed in our Goals and Roadmap. Both documents state that the integration of manned and unmanned systems into a seamless fighting force is an objective of our unmanned systems strategy and critical to our future naval force."

Geurts said the DASN(UxS) had satisfied Mabus' Nov. 13, 2015, directive to "Treat unmanned as unmanned.

"That work continues, but that work, to integrate unmanned

systems into all that we do, now belongs to all of us," Geurts said.

Earlier this year, the Unmanned Warfare Systems Division (N99) in the Office of the Chief of Naval Operations was eliminated and its mission merged into the directorate of Warfare Integration. N99 had been established on Sept. 15, 2015, with now-retired Rear Adm. Robert Girrier as director.

Navy to Establish Type Wing for F-35C Squadrons

ARLINGTON, Va. – The Navy will establish a new type wing as commander over the service's growing F-35C Lightning II strike fighter community.

According to an internal directive, commander, Joint Strike Fighter Wing, will be established on Aug. 1 at Naval Air Station (NAS) Lemoore, California. The new wing will man, train and equip the three current F-35C strike fighter squadrons (VFAs): the two fleet replacement squadrons, VFA-101 at Eglin Air Force Base, Florida, and VFA-125 at Lemoore, plus VFA-147, an operational squadron currently in transition from the F/A-18E to the F-35C.

As more fleet squadrons make the transition to the F-35C, they will be reassigned from their current wing, Strike Fighter Wing, U.S. Pacific Fleet – also at Lemoore – or Strike Fighter Wing Atlantic at NAS Oceana, Virginia. Those wings will continue to man, train and equip the Navy's F/A-18 strike fighter squadrons.

Thornberry: Take “More Out of the Tail,’ Put ‘More into the Tooth’ of Defense Budget

WASHINGTON – House Armed Services Chairman Mac Thornberry, R-Texas, said he is convinced that the military’s readiness problems are far more serious than many people believe, and he is determined to get the maximum impact from the current defense funding increase to attack that problem.

That includes getting the defense authorization and funding bills enacted on time to avoid the waste and inefficiencies of the past year’s continuing resolutions and finding savings from the Pentagon’s administrative functions to “put more in the hands of the warfighters,” Thornberry said May 15.

Addressing a forum hosted by Bloomberg News, Thornberry said he did not expect any major issues to delay House passage of the 2019 National Defense Authorization Act (NDAA) that his committee approved last week.

“My goal is to get it done on time, for a change,” he said.

That means passage before Oct. 1, when the new fiscal year begins.

Thornberry noted that due to the two-year budget agreement that covers the current year and fiscal 2019, “we have had a big turnaround on funding.” But even with the 10 percent increase allowed for ’19, defense is still behind where it was in 2010, before passage of the restrictive Budget Control Act.

“We can’t count on Congress continuing to have 10 percent

[growth] in the future. That means we're going to have to have more savings out of the defense budget. … More out of the tail, more into the tooth," he said.

One of the ways the NDAA seeks to do that is in the proposal to cut personnel and administrative cost in the so-called Fourth Estate, support functions outside of the armed services. Although Thornberry had tried to enact a mandatory 25 percent cut in the cost of those programs, due to opposition in his committee, he accepted language that gives the Pentagon's new chief management officer the discretion to make whatever cuts he can in those functions.

Opposition to his proposed cuts, the chairman said, "is a key example of where Congress adds to the inefficiencies" in defense.

Perhaps another example of that is the language imposed in the NDAA that blocks the plan by the Maritime Administration and the Maritime Sealift Command (MSC) to buy a number of retired foreign-made commercial cargo ships to replace the badly aged sealift vessels MSC would need to support a major overseas conflict. Those ships could be bought and modified for a fraction of the cost of new U.S.-built ships, which the bill requires.

Thornberry said he is "sympathetic to the idea" of buying a certain number of the commercial ships, "that do not imperil your industrial base." But he said he had to "be realistic about the Buy America sentiment" among his committee members "so we can get something moving.

"I'm convinced the readiness problems that have emerged over the last 10 years are far deeper than most people think," he said.

While conceding that he did not expect to get anything like this year's 10 percent funding increase in the future, he noted that Defense Secretary James Mattis and Joint Chiefs

Chairman Marine Gen. Joseph Dunford have testified they would need 3 to 5 percent more a year just to keep from falling further behind. “That’s the benchmark” for the future, Thornberry said.

Thornberry said he is “skeptical” about the chances of getting North Korea to agree to “permanently and verifiably” give up its nuclear weapons. And even if that were achievable, he said, continued U.S. military presence in Asia and continued improvements in U.S. missile defense “are essential.”

AEI: Navy Needs Rebuilding to Reach 355-Ship Fleet

ARLINGTON, Va. — The U.S. Navy faces serious challenges in reaching its goal of 355 ships and the capabilities they need, a Washington think tank said, recommending a series of steps that will help the service to increase its warfighting strength.

In a new study from the American Enterprise Institute (AEI) — Rough Seas: An AEI Study in Crisis Response for Tomorrow’s Navy and an Improved Navy for the Future — scholars John W. Miller, Thomas Donnelly and Gary J. Schmitt considered four table-top scenarios to model the future fleet to come up with recommendations.

The authors identified four key challenges. The Navy:

■ “Lacks sufficient funding to meet the stated requirement of a 355-ship fleet;

■ Is not large enough to carry out its primary missions of

peacetime engagement, crisis response, and combat operations;

■ Has a maintenance system that cannot respond effectively to unexpected contingencies;

■ Lacks the global presence and capabilities to deal decisively with the new great-power competitors, Russia and China."

The authors made several specific recommendations for the Navy to:

■ Expand forward presence in the North Atlantic, the Mediterranean, and the Pacific.

■ Fully fund Navy operations and maintenance accounts.

■ Adopt "best maintenance" plans and practices from the private sector.

■ Install vertical launch systems (VLSs). The Navy should install 16-cell VLS systems on at least six amphibious ships and six cargo ships by 2022.

■ Install integrated fire control and counter-air systems.

■ Install Harpoon anti-ship missiles. The Navy should equip all expeditionary fast transport ships with Harpoon anti-ship missiles.

■ Install heavyweight torpedoes. The Navy should equip all Ticonderoga-class cruisers with heavyweight torpedoes.

■ Keep all 22 Ticonderoga-class cruisers.

■ Accelerate production and fielding of the amphibious assault ship Bougainville.

■ Buy more F-35 joint strike fighters.

The study said "the proposed short-term investments can

ameliorate future strategic vulnerabilities and increase future strategic opportunities. But these proposed investments are not a substitute for the larger, overdue and essential rebuilding that the Navy needs.

“In short, the 355-ship Navy will take decades and billions of dollars not only to build but also to maintain,” the study said. “Neither the Obama administration nor the Trump administration has proposed defense budgets commensurate with reaching or sustaining this significantly expanded fleet.”

The authors recommended that the Navy buy in bulk – as is done through block buys and multiyear procurements – because it has shown that it “improved shipyard performance and saved money. To expand significantly in size, it is imperative the Navy do so as smoothly as possible.”

The authors concluded that “while these improvements can help close a window of maritime vulnerability and assist in stabilizing critical regions, deterring increasingly aggressive adversaries and reassuring increasingly skittish allies, they are not a substitute for the larger, overdue and essential rebuilding that the Navy needs. Today’s Navy is too small, insufficiently lethal, not well enough maintained and, at its bases on the East and West Coasts of the United States, positioned too far away from crises and conflicts that might threaten American interests.”

Coast Guard Commandant: Jones Act Repeal Would Bring

‘Severe Repercussions’

WASHINGTON – The commandant of the Coast Guard said that the recent congressional focus on the Jones Act in the wake of the 2017 hurricane relief efforts for Puerto Rico threatens to invite repeal of the act, one that would have unintended negative consequences for national defense, maritime commerce and shipbuilding.

“There’s this fixation that we need to get after the Jones Act,” Adm. Paul F. Zukunft said in response to a question from the audience May 8 at the Center for Strategic and International Studies, a Washington think tank. “The consequences of the Jones Act [repeal] could have severe repercussions as well.”

The Jones Act – formally titled the Merchant Marine Act of 1920 – generally prohibits foreign-built, foreign-owned or foreign-flag vessels from conducting coastwise trade within the United States and between the United States and its overseas territories. It also generally applies restrictions that effectively prohibit ships under the Jones Act from being overhauled at foreign shipyards. Ship crews must be composed of U.S. citizens or legal residents of the United States.

Zukunft listed three consequences he said would ensue if the Jones Act is repealed.

“All of our coastwise trade will probably be done by a third nation, namely China, [and] not just coastwise trade, but plying our inland river systems as well,” he said. “If we’re looking at, ‘hey, if we can lower the cost of doing business, we can have a third nation do it on our behalf.’

“The next thing that goes away is the [U.S. and state] maritime academies,” he said. “You don’t need them because we have foreign mariners. We don’t know who they are, but they’re foreign mariners plying our waters and our internal waters as

well to conduct maritime commerce, which is a $4.6 trillion enterprise in the United States.
“Then the next thing that goes is our shipyards and the technology that goes with the shipyards,” he said, speaking of the smaller labor costs of foreign shipyards.

Navy Completes Lightweight Torpedo Defense Mission Module Testing

WASHINGTON – The Littoral Combat Ship (LCS) Mission Modules (MM) program announced the successful completion of two days of at-sea testing of the AN/SLQ-61 Lightweight Tow (LWT) Torpedo Defense Mission Module (TDMM), May 2.

Similar to the AN/SLQ-25 “Nixie” system currently installed in the fleet, the LWT is a modular, digitally controlled, soft-kill countermeasure decoy system. It employs an underwater acoustic projector deployed from the ship’s stern on a tow cable to defend ships against wake-homing, acoustic homing and wire-guided enemy torpedoes. The LWT system is significantly lighter in weight than the current “Nixie” system and has a different tow profile, making it ideally suited for small combatant warships operating in littoral environments.

“This test was highly successful and demonstrated that this technology, which provides critical torpedo defense capability for the LCS class of ships, is ready for integration aboard an LCS,” said Capt. Theodore Zobel, LCS Mission Modules program manager.

The test event was the final at-sea test on a commercial

vessel. The program is incorporating lessons learned from this event as it prepares for TDMM integration and formal developmental and operational tests aboard an LCS. The torpedo defense capability the TDMM provides is envisioned for eventual deployment on all LCS ships, and potentially other small combatants.

Program Executive Office Unmanned and Small Combatants (PEO USC) provides a single program executive responsible for acquiring and sustaining the littoral combat ship class and mission capabilities; the future frigate; the multi-mission surface combatant – an LCS variant for international customers; mine, anti-submarine and surface warfare systems; and unmanned maritime systems.

LPD to be Named for Navy Medal of Honor Recipient

ARLINGTON, Va. – The Navy's 13th San Antonio-class amphibious dock ship (LPD) will be named for a naval officer who was awarded the Medal of Honor for gallantry during a kamikaze attack during the 1945 Okinawa campaign.

Speaking May 2 to reporters at the Pentagon, Navy Secretary Richard V. Spencer said the next LPD would be named for Capt. Richard M. McCool Jr., the former commanding officer of a landing craft support ship, large, Mark 3, that went to the aid of the crew of a sinking destroyer, USS William D. Porter, and then came under attack itself, but saved his ship despite being wounded and knocked temporarily unconscious.

Below is the text of the official citation for the Medal of Honor presented to then-Lt. McCool by President Harry S.

Truman on Dec. 18, 1945:

“For conspicuous gallantry and intrepidity at the risk of his life above and beyond the call of duty as Commanding Officer of the U.S.S. LCS 122, during operations against enemy Japanese forces in the Ryukyu Chain, 10 and 11 June 1945. Sharply vigilant during hostile air raids against Allied ships on radar picket duty off Okinawa on 10 June, Lieutenant McCool aided materially in evacuating all survivors from a sinking destroyer which had sustained mortal damage under the devastating attacks. When his own craft was attacked simultaneously by two of the enemy’s suicide squadron early in the evening of 11 June, he instantly hurled the full power of his gun batteries against the plunging aircraft, shooting down the first and damaging the second before it crashed his station in the conning tower and engulfed the immediate area in a mass of flames. Although suffering from shrapnel wounds and painful burns, he rallied his concussion-shocked crew and initiated vigorous fire-fighting measures and then proceeded to the rescue of several trapped in a blazing compartment, subsequently carrying one man to safety despite the excruciating pain of additional severe burns. Unmindful of all personal danger, he continued his efforts without respite until aid arrived from other ships and he was evacuated. By his staunch leadership, capable direction and indomitable determination throughout the crisis, Lieutenant McCool saved the lives of many who otherwise might have perished and contributed materially to the saving of his ship for further combat service. His valiant spirit of self-sacrifice in the face of extreme peril sustains and enhances the highest traditions of the United States Naval Service.”

McCool, an Oklahoma native, served in the Korean and Vietnam wars as well, retiring with the rank of captain. He died in 2008.

Spencer broke the tradition of naming LPDs for cities and counties in the United States by naming the ship after a naval

hero.

LPD 29 will be built by Huntington Ingalls’ shipyard in Pascagoula, Mississippi, under a $1.4 billion contract awarded in February.