SCO Plans for Overlord USV Transfer to Navy in January

Aerial photos of USS Ranger and USS Nomad unmanned vessels underway in the Pacific Ocean near the Channel Islands on July 3, 2021. *U.S. NAVY / Eric Parsons*

ARLINGTON, Va. — The two Ghost Fleet Overlord autonomous unmanned surface vessels (USVs) designed to experiment with unmanned fleet technologies are scheduled to be turned over to the U.S. Navy early next year, likely January, and will be joined in 2022 by two more such vessels.

The two USVs, named Ranger and Nomad, were developed by the Office of the Secretary of Defense Strategic Capabilities Office (SCO). They will be used by the Navy's San Diego-based Surface Development Squadron One to mature technology and develop concepts of operations for unmanned combatants; tactics, techniques and procedures, and operator experience for USVs as the Navy develops it future Large USV and Medium USV.

The Overlord USVs are repurposed vessels based on an oil rig offshore support vessel design, said Luis Molina, deputy director for Strategic Capabilities for the Department of Defense, speaking to reporters in a June 13 roundtable webinar. The support vessels were designed to be robust, requiring minimal crews. The Overlord vessels feature government-furnished equipment, including a common control system.

Ranger made the transit from the Gulf of Mexico to San Diego via the Panama Canal in October, followed in May and June by Nomad. The ocean transits, planned in advance, were monitored and controlled by Sailors of Surface Development Squadron One in the shore-based Unmanned Operations Center in San Diego, where the controllers are able "to change missions in situ," said Capt. Pete Small, the Navy's program manager for Unmanned Maritime Systems, also speaking at the roundtable event. The Overlord USVs are equipped with sensors to "react to contacts along the way."

Small said the Navy is looking for "supervised autonomy" as the level of control over its USVs.

Nomad, for example, sailed 4,421 nautical miles, 98% in an autonomous mode, according to a June 7 Defense Department release. Transit of the Panama Canal required the manual navigation by a skeleton crew on each ship in accordance with canal regulations.

Molina said the SCO will continue to exercise the Overlord vessels until turnover the Navy to do "fleet demonstration exercises and operational vignettes."

"We're currently targeting a January turnover date to the Navy," Molina said. "But we're working hand in hand with the Navy, and we have been for the last four years, so that handover and transition is expected to be fairly seamless. We are completing the integration of some of the systems on the

ships.”

Two more Overlord vessels are funded by the Navy and are scheduled for delivery by the end of 2022, Small said, which – together with the Sea Hunter and Sea Hawk USVs – will give the Navy six unmanned ships for experimentation.

DHS S&T Tests Innovative Autonomous Surface and Underwater Ocean Surveillance Technology

A Triton unmanned underwater vehicle, shown at the University of Southern Mississippi upon completion of its acceptance testing in 2020. *UNIVERSITY OF SOUTHERN MISSISSIPPI*

WASHINGTON – The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) is evaluating innovative ocean surveillance technology to support the U.S. Coast Guard's mission of protecting the more than 95,000 miles of maritime border shoreline and 15,000 miles of waterways, seaports, and other commercially navigable waters, the department said in a July 14 release.

DHS S&T teamed up with the Coast Guard, University of Southern Mississippi (USM), the U.S. Naval Research Laboratory (NRL), the Applied Research Laboratory (ARL) at Penn State, Ocean Aero, Inc., Cherokee Nation Strategic Programs (CNSP), and the Homeland Security Systems Engineering and Development Institute (HSSEDI), to develop, acquire, evaluate, and test specialized, environmentally powered (wind and solar), multi-mission capable, unmanned surface and underwater vessels.

The evaluation team initiated acceptance testing of six Triton vessels at USM's Marine Research Center (MRC) at the Port of Gulfport. During this ongoing testing, they will utilize MRC's specialized lab facilities and waterfront access to evaluate the Tritons' capabilities in multiple areas, including navigation; surface, diving, and subsurface operations; operating effectively for long periods of time using only wind and solar power; and how well they can serve as a platform for cameras and advanced sensors to detect relevant anomalies and threats.

"S&T is excited about this opportunity to test and evaluate such a unique technology," said S&T Program Manager Shane Cullen. "There are a number of autonomous vessels in the field that are utilized for both commercial and military applications. However, the Triton proposes to be able to navigate while submerged and rely solely on wind and solar power when on the surface. That could make it very useful for

long-term maritime protection and law enforcement operations at sea.”

“Autonomous vessels represent an emerging technology that could be integrated into various Coast Guard missions,” said Scott Craig, the unmanned systems research and development domain lead for the Coast Guard. “Through evaluation and testing we can better determine how the service can take advantage of these types of vessels in the future.”

S&T, the Coast Guard, Ocean Aero, CNSP, NRL, HSSEDI, and USM will continue to evaluate the Triton autonomous marine vessels throughout the rest of the summer. Once NRL and ARL integrate selected advanced sensors into the Triton vessels later this summer, testing will continue offshore in Gulfport into the early fall.

Navy Confident Strike Fighter Shortfall Will Be Gone by 2025, Admiral Says

Sailors conduct pre-flight checks on an F/A-18E Super Hornet, assigned to the "Stingers" of Strike Fighter Squadron (VFA) 113, on the flight deck of Nimitz-class aircraft carrier USS Carl Vinson (CVN 70), July 9, 2021. *U.S. NAVY / Mass Communication Specialist Seaman Sophia Simons*

ARLINGTON, Va. – The Navy's director of air warfare told the Congress that the Navy is on track to eliminate its shortfall of strike fighter aircraft by 2025.

Testifying July 13 before the Tactical Air and Ground Forces subcommittee of the House Armed services Committee, Rear Adm. Andrew J Loiselle, the director of air warfare in the Office of the Chief of Naval Operations, was questioned by Rep. Vicky Hartzler, (R-Missouri) – in whose state the Boeing F/A-18E/F Super Hornet strike fighter is built – about the Navy's decision not to seek additional procurement of more Super Hornets in fiscal 2022 and the effect on the Navy's current strike fighter shortage.

"We have taken the F-35C portion of our 44 strike fighters [per carrier air wing] and reduced that from two squadrons of

F-35s down to a single squadron but then increased then number of [aircraft] from 10 to 14," Loiselle said.

The admiral pointed out that the Navy's adversary aircraft requirements changed to replace some legacy F/A-18s with ex-Air Force F-16s and ex-Swiss Air Force F-5 fighters instead of Super Hornets. He also said the Fleet Readiness Center at Naval Air Station North Island, California, "has been able to return 28 Super Hornets from long-term down status and put those back in the fleet.

"We believe that those improvements [will] reduce our strike fighter shortfall to zero by 2025 based on current year analysis," Loiselle said.

The admiral said the two Service Life Modernization (SLM) for the Super Hornets "will have the additional capacity at the 2025 period in question to take additional SLM [aircraft] should our current analysis be revised, and we require that additional capacity. We believe the infrastructure will support additional modifications to the Block III" version of the Super Hornet.

Hartzler asked about the Super Hornets being inducted for SLM having more corrosion evident than was predicted, noting that alleviating the corrosion would add time to conduct an SLM.

Loiselle said the SLM line was about halfway through modifying the first 30 of the Block II Super Hornets planned for the process, noting the first 30 aircraft were intended to enable the artisans to learn the needs of the aircraft.

"I agree 100% that there was damage beyond expectations from a corrosion perspective on some of the initial aircraft," he said. "However, Boeing has seen significantly improved condition in the aircraft that we are now submitting for SLM. So, with the number of Block II Super Hornets in our inventory, compared with the number of Block II Super Hornets that we intend to conduct SLM on, that allows us some

selectivity in those [aircraft] we put through the modification line. We're learning in this process and we're now conducting inspections prior to induction looking at these hard areas to identify whether or not the corrosion present in those aircraft justifies inclusion in out SLM process or whether or not we might look at a different to conduct that on.

"But right now, we're continuing to learn and continuing to bring down the time associated with getting the aircraft through the SLM process," he said. "We anticipate that by the 2025 timeframe we should be in full swing on two lines at one year per SLM aircraft at that point in time in 2023 and after, coming of the line in a full 10,000-hour modification in full Block III configuration."

Loiselle also said the Navy "currently is executing a multi-year procurement of F/A-18s – 78 total. We've got 70 left to deliver and [those will be delivered] between now and fiscal year '25. So they are continuing to add to our total of F/A-18s. That's why I think we can get to SLM and modifications of current F/A-18s after that time frame."

He noted the Navy lists an unfunded priority of five F-35Cs to accelerate transition to its desired mix of fourth- and fifth-generation fighters.

Boeing Delivers Indian Navy's 10th P-8I

Boeing has delivered the Indian navy's 10th P-8I long-range maritime patrol aircraft. *BOEING*

NEW DELHI, INDIA – Boeing is continuing to expand the Indian navy's long-range maritime reconnaissance antisubmarine warfare capabilities with the delivery of the country's 10th P-8I. The patrol aircraft is an integral part of the Indian navy's fleet and has surpassed 30,000 flight hours since it was inducted in 2013.

This is the second aircraft to be delivered under an option contract for four additional aircraft that the Indian Ministry of Defence awarded in 2016. The Indian navy was the first international customer for the P-8, which is also operated by the U.S. Navy, the Royal Australian Air Force and the United Kingdom's Royal Air Force.

In addition to unmatched maritime reconnaissance and antisubmarine warfare capabilities, the P-8I has been deployed to assist during disaster relief and humanitarian missions.

Boeing supports India's growing P-8I fleet by providing

training of Indian navy flight crews, spare parts, ground support equipment and field service representative support. Boeing’s integrated logistics support has enabled a high state of fleet readiness at the lowest possible cost.

Boeing is currently completing construction on the Training Support & Data Handling Centre at INS Rajali, Arakkonam, Tamil Nadu and a secondary maintenance training center at the Naval Institute of Aeronautical Technology, Kochi, Kerala, as part of a training and support package contract signed in 2019. This new indigenous, ground-based training will allow Indian Navy crew to increase mission proficiency in a shorter time while reducing on-aircraft training time resulting in increased aircraft availability.

SECNAV Nominee Calls Chinese Adventurism His Main Threat Concern

The Theodore Roosevelt Carrier Strike Group transits in formation with the Makin Island Amphibious Ready Group in the South China Sea April 9, 2021. The Theodore Roosevelt Carrier Strike Group, Makin Island Amphibious Ready Group and the Ticonderoga-class guided-missile cruiser USS Port Royal (CG 73) are conducting expeditionary strike force operations during their deployments to the 7th Fleet area of operations. *U.S. NAVY / Mass Communication Specialist Seaman Faith McCollum*

ARLINGTON, Va. – Former U.S. Navy surface warfare officer Carlos Del Toro, the Biden administration's choice to be the next secretary of the Navy, told a Senate hearing July 13 that he will be "exclusively focused on the China threat."

At a confirmation hearing before the Senate Armed Services Committee with four other nominees for senior Pentagon posts, Del Toro, a U.S. Naval Academy graduate and former destroyer commander, was quizzed on several topics from lagging shipbuilding plans and aging shipyards to the challenge of projecting power in the Arctic without sufficient deep water ports, sturdy-hulled Navy ships or Coast Guard ice breakers to

operate in the far north.

However, several Republican lawmakers, who view the Navy's $211.7 billion fiscal 2022 budget – with $22.6 billion for shipbuilding, a 3% reduction from $23.3 billion in 2021 – as too little to maintain Navy readiness, zeroed in on the People's Republic of China and the challenge it presents as a pacing competitor and a threat to Taiwan.

Noting China's "global adventurism" presented both a national security threat and an economic threat, Del Toro said it was "incredibly important to defend Taiwan, in every way," adding that a comprehensive approach should be taken to provide Taiwan with "as much self-defense measures as humanly possible."

Asked by Sen. Rick Scott of Florida about Indo-Pacific wargame scenarios indicating the United States and its allies would not be able to defend Taiwan, Del Toro noted that as a graduate of the Naval War College as well as Annapolis he was well acquainted with war gaming programs but has not been privy to recent classified studies. However, if confirmed as Navy secretary, Del Toro said he intended "to dive into that immediately, so I can better understand that threat and match that threat."

Del Toro added, "I'm going to be exclusively focused on the China threat and exclusively focused on moving our maritime strategy forward in order to protect Taiwan and all of our national security interests in the Indo-Pacific theater."

Both Democrats and Republicans were concerned about the fiscal 2022 plans to decommission 15 ships, including four littoral combat ships and seven Ticonderoga-class guided missile cruisers, while requesting funds to build just one destroyer. Sen. Roger Wicker (R-Mississippi) noted those changes would drop the fleet size to 290 ships, below the 355-ship fleet mandated by 2018 legislation.

Del Toro said he fully supported the 355-ship goal, and with the shift to “a more dominant maritime strategy in the Indo-Pacific” to deter China, the Navy and Marine Corps will need more resources to field “the combat effectiveness we will need.” He committed to working to make that case with Defense Secretary Lloyd Austin and the White House in developing the Navy’s fiscal 2023 budget request.

SASC Chairman Jack Reed (D-Rhode Island) noted at the hearing’s start that “deferred ship maintenance, reduced steaming and flying hours, and cancelled training and deployments have created serious readiness problems,” and “cost overruns and delays in schedules have plagued both public and private shipyards.”

Citing his experience in the Navy and a small business owner for 17 years, Del Toro said he understood the responsibility of the Navy secretary “to ensure the return on investment that American taxpayers make in supporting our Navy.”

It was “incredibly important to ensure, that requirement creeps don’t interfere with the continuing cost of projects,” he said, adding that having the right program managers in place and the right oversight from their leadership to ensure projects stay on track was a key element as well as paying immediate attention when challenging problems are first identified and taking necessary actions to correct them.

“It takes a team to make that happen, they have to have the support from their senior leadership and the military as well for it to be an effective solution,” he said.

AeroVironment Selected by USSOCOM for ISR Services Under Mid-Endurance UAS IV Program

JUMP 20 is a VTOL, fixed-wing unmanned aircraft system that can be deployed quickly and requires no launch equipment or runway. *AEROVIRONMENT*

ARLINGTON, Va., July 13, 2021 — AeroVironment Inc. was awarded a competitive task order valued at approximately $22 million on May 21 from the U.S. Special Operations Command (USSOCOM) for ISR services using JUMP 20 medium unmanned aircraft systems (MEUAS) at an undisclosed customer location, the company said in a July 13 release.

The ISR services include the first satcom-enabled unmanned aircraft system for beyond line-of-sight operations as part of the existing indefinite delivery, indefinite quantity MEUAS IV contract. The task order specifies a 12-month period of performance and multiple follow-

on option years for ISR services.

“The JUMP 20 delivers an unmatched level of versatility, with runway and infrastructure independence, multiple payload configurations, class-leading endurance and a track record of reliability and ruggedness,” said Gorik Hossepian, AeroVironment vice president and product line general manager for medium UAS. “The inclusion of a satcom payload adds beyond-line-of-sight operation to the JUMP 20, providing our customer with expanded reach and situational awareness, and representing another game-changing, market-leading capability.”

The AeroVironment JUMP 20 is the first fixed-wing unmanned aircraft system capable of vertical takeoff and landing to be deployed extensively in support of U.S. military forces. Ideal for multi-mission operations, JUMP 20 delivers 14-plus hours of endurance, a standard operational range of 185 kilometers (115 miles) and is runway independent. The system can be set up and operational in less than 60 minutes without the need for launch or recovery equipment and has a useable payload capacity of up to 30 pounds. The JUMP 20 also features a common autopilot and ground control system architecture providing a highly customizable, modular platform which can be custom configured to meet operational or customer requirements.

Exercise Sea Breeze 2021 Comes to a Close in Black Sea

The Arleigh Burke-class guided-missile destroyer USS Ross (DDG 71) from the topside of the Royal Navy HMS Trent (P224) Odesa, Ukraine during Exercise Sea Breeze 2021, July 2, 2021. *U.K. ROYAL NAVY / HMS Trent*

The U.S. and Ukrainian navies wrapped up Exercise Sea Breeze 2021 July 10 in the Black Sea region.

“We’ve had the largest Sea Breeze since we began over 20 years ago,” said Capt. Stuart Bauman, the Sea Breeze 21 exercise director on the U.S. side during a press conference on Friday. “We’ve had the participation of 30 nations including observers and mentors; more than 5,000 Sailors, Soldiers, and Airmen; more than 40 aircraft participate; 32 ships and just a great amount of cooperation and partnership between all of the nations.”

Bauman said there was great participation from both NATO and non-NATO participants across a wide variety all around the globe, including Asia, Africa, North America, Europe, and the

Middle East. “We had great participation from a wide variety of countries. We had folks come in to be mentors with the Ukrainian forces, we had teams participating in our diving exercises as well as being observers and across all of the different air, land, and maritime components.”

Participating Sea Breeze 21 nations included Albania, Australia, Brazil, Bulgaria, Canada, Denmark, Egypt, Estonia, France, Georgia, Greece, Israel, Italy, Japan, Latvia, Lithuania, Moldova, Morocco, Norway, Pakistan, Poland, Romania, Senegal, Spain, South Korea, Sweden, Tunisia, Turkey, Ukraine, United Arab Emirates, United Kingdom and the United States.

“The level of cooperation and integration is at its highest level that we’ve seen, and the Ukrainians are very capable as well as all of the partners that have joined in,” Bauman said. “And we’ve covered everything from maritime components to air, to land to special operations.”

Bauman said the forces took part in sea, air and land warfighting scenarios. “We had quite a bit of interoperability between many different nations across all of the domains of warfare, and they’ve all done an outstanding job.”

Cmdr. John D. John, commanding officer of Rota, Spain-based USS Ross (DG-71), said he and his crew were part of a five-ship battle group that incorporated a Ukrainian vessel, Hryhoriy Kuropiatnykov, the Bulgarian ship Bodry, the British ship Trent, and Romanian ship Macellariu. “Our mission has been to promote interoperability and enhance warfighting readiness for our collective of the Black Sea region to ensure safety and prosperity in this region for allies and partners.”

John said Sea Breeze enhances combat readiness amongst participating NATO and allied partner nations to rapidly respond to any threats. “I believe that we proved that our ability to seamlessly operate together to maintain a stable

and prosperous Black Sea region sends a message to the world that we are committed to enhancing stability and deterring aggression. No nation can confront today's challenges alone, and the Black Sea is no different. While it may be smaller than other international bodies of water, it's still quite large and provides an appropriate area for nations to come together to learn from each other, strengthen relationships, and also contribute to each other to ensure the continued success of the longstanding alliance with NATO and our partner nations."

John said the exercise took place in international waters in the Black Sea, and therefore there was the opportunity for both non-participating units and civilian vessels to be in and around the exercise area. "From all accounts, all vessels and aircraft participated or conducted themselves in accordance with international law and maritime regulations and with due regard for safety."

"As professional mariners, regardless of what nation, safety at sea is paramount for all vessels," John said. "There were at least two interactions over bridge-to-bridge VHF radio communication where both a non-participating unit and a participating unit communicated with each other effectively and professionally to ensure safe navigation of the exercise area. All of those communications were conducted in a routine and professional manner."

U.S. Marine Corps Lieutenant Colonel Mastin Robeson, Jr., the commander of 1st Battalion, 6th Marines, was speaking from Oleshky Sands in Kherson Oblast, Ukraine, collocated with the 88th Marine Infantry Battalion as well as the 1st Separate Battalion, Airborne Marines. "I've got with me approximately 400 Marines from across the 2nd Marine Expeditionary Force, also known as II MEF. And our mission was to deploy from Camp LeJeune, North Carolina to Oleshky Sands to conduct training with other nation forces, to include Ukrainian marines, Georgian soldiers, as well as Moldovan forces."

Robeson said the exercise consisted of multiple phases. “The first phase was an opportunity to really get familiar with the other services that we were working with from other nations. We had a transition period on the 4th of July where we paused to celebrate Naval Forces Day for the Ukraine and, of course, Independence Day for the United States, and then we moved into a final exercise.”

“The exercise has been a great experience for the Marines from 1st Battalion, 6th Marines and those from II MEF that accompanied us out here. The opportunity to operate in an expeditionary environment where we’re living in tents and out training with partner forces who maintaining stability in the Black Sea is a great win for us and I think a great win for the partners we worked with. We found that our partner forces are professionals, skilled, and have a lot of pride in what they do. We had the chance to work with equipment and folks we don’t work with every day,” said Robeson. “It was a great opportunity to exchange esprit de corps between the nations. And for the record, we had a lot of rain out here the whole way through it.”

A chart showing how international participation in Sea Breeze has increased over the years.

During the exercise, U.S., Ukrainian, Canadian, Polish and Georgian divers worked together to remove a civilian vessel that sunk in 2016 that was blocking a portion of the Odessa Port pier. Officials said the cooperative dive and salvage operation demonstrated the tangible lasting impacts the partnerships between participants as well as increasing port access and maritime safety.

During the press conference, reporters asked Bauman if Sea Breeze was a sign of increased NATO or American deployments in the Black Sea in the future. “Sea Breeze is just one of many exercises that we conduct both around the world and in Europe and the Black Sea region,” he said. “We do very regular deployments with a variety of partner countries, and we will continue to do so to strengthen and stabilize the region.”

Bauman said Russia should not be alarmed by the Sea Breeze maneuvers. “We have been performing and executing Sea Breeze for many years, all the way back to 1997, and so we have a long history of establishing what our cadence is and the types of activities that we perform, and even well beyond that just a general level of professionalism and being able to conduct military exercises safely and without provocation. We are very transparent in our intentions as well as providing boundaries on where we will be and when we will be there. All of our partners have a very high level of professionalism such that we minimize any provocation and operate only in accordance with those well-established conventions in international waters and air space. In fact, all vessels, both civilian and military, that were operating in the exercise area conducted themselves with professionalism in accordance with international law and maritime regulations with the most due regard for safety at sea, he said. “There was no interference at all.”

According to Bauman, most ships that participated in Sea Breeze will also be participating in Breeze, a Bulgarian-led exercise. “They will be remaining in the Black Sea for a period of time, but obviously not to exceed the time limits of the Montreux Convention.”

Coast Guard Offloads $15 million in Seized Cocaine

The crew of the Coast Guard Joseph Tezanos offloads nearly $15 million in cocaine and transfers custody of two suspected smugglers at Coast Guard Base San Juan July 12, 2021. *U.S. COAST GUARD*

SAN JUAN, Puerto Rico – The Coast Guard Cutter Joseph Tezanos crew offloaded nearly $15 million in seized cocaine and transferred custody of two male smugglers at Coast Guard Base San Juan Monday, following the interdiction of a go-fast vessel in Mona Passage waters near Mona Island, Puerto Rico, the Coast Guard7th District said in a July 13 release.

The interdiction resulted from multi-agency efforts in support of U.S. Southern Command's enhanced counter-narcotics operations in the Western Hemisphere and coordination with the Caribbean Corridor Strike Force (CCSF). The United States Attorney's Office for the District of Puerto Rico is leading the prosecution for this case.

During a routine patrol July 11, a Customs and Border Protection (CBP) Air and Marine Operations (AMO) Multi-Role

Enforcement Aircraft (MEA) aircrew detected two men aboard a go-fast vessel suspected of drug trafficking. Coast Guard Cutter Joseph Tezanos, operating in the vicinity with a CBP AMO Officer onboard, diverted and responded in hot pursuit to interdict the suspect vessel.

Shortly thereafter, cutter Joseph Tezanos arrived on scene and interdicted the go-fast vessel with the assistance of the cutter's small boat.

The crew of cutter Joseph Tezanos embarked the suspected smugglers and located loose packages aboard the 24-foot go-fast vessel, and they also recovered packages from the water that were jettisoned from the go-fast vessel. In total, the crew of Joseph Tezanos seized 502 packages of cocaine with a combined weight of approximately 1,104 pounds.

"I directly attribute the success of this interdiction to the close interoperability that the Coast Guard has with CBP and my crew's phenomenal performance during the pursuit, boarding and towing of the go-fast vessel," said Lt. Anthony Orr, Cutter Joseph Tezanos commanding officer. "It was a pleasure to work with the crew of the CBP aircraft, who vectored the cutter to intercept the go-fast vessel. Having a CBP Air and Marine Operations pilot onboard the cutter during the case proved very fruitful as the crew and pilot shared best practices, which can only help in future joint cases. As Joseph Tezanos completes her patrol, we return home with the pride that half a metric ton of cocaine will not make it to the streets. "

"The Caribbean Air and Marine Branch values its partnerships that result in successful seizures like this one," said Hector Rojas, Director of the Caribbean Air and Marine Branch. "Our agents will continue to use our advanced aeronautical and maritime capabilities to detect and interdict smuggling attempts throughout our coastal borders."

Cutter Joseph Tezanos is a 154-foot fast response cutter homeported in San Juan, Puerto Rico.

General Atomics Continues On-Time Delivery of EMALS, AAG for CVN 79, CVN 80

An F/A-18F Super Hornet, assigned to Air Test and Evaluation Squadron (VX) 23, lands on USS Gerald R. Ford's (CVN 78) flight deck. Ford was conducting Aircraft Compatibility Testing to further test its Electromagnetic Aircraft Launch Systems and Advanced Arresting Gear. *U.S. NAVY / Mass Communication Specialist Seaman Jesus O. Aguiar*

SAN DIEGO – General Atomics Electromagnetic Systems (GA-EMS) announced July 12 it continues on-time delivery of the

Electromagnetic Aircraft Launch System (EMALS) and Advanced Arresting Gear (AAG) for installation on the future Gerald R. Ford-class aircraft carriers USS John F Kennedy (CVN 79) and USS Enterprise (CVN 80). GA-EMS' EMALS and AAG installed aboard USS Gerald R. Ford (CVN 78) recently completed successful at-sea operational testing during an 18-month Post Delivery Trial and Test (PDT&T) period.

"The effects of the pandemic during the past year have presented everyone with some incredible challenges, and we are proud of our team's dedication and focus on delivering EMALS and AAG equipment for Ford-class carriers even under the most difficult of circumstances," said Scott Forney, president of GA-EMS. "Under multiple contracts with the Navy, we continue to support CVN 78 sustainment requirements, and deliver EMALS and AAG for the next two Ford-class carriers now under construction, CVN 79 and CVN 80."

"Multiple contract awards help us efficiently maximize manufacturing plans to ensure there are no gaps in production and we are able to maintain a stable supply chain and workforce to meet the deliverables schedule," continued Forney. "We've delivered 97% of EMALS and AAG equipment for CVN 79, meeting the installation schedule. We also remain on track to support the CVN 80 construction schedule, having built, tested and delivered more than 25% of EMALS and AAG CVN 80 equipment to date. With that said, we remain poised to provide these same critical technologies as the Navy determines the EMALS and AAG contract and schedule requirements for the fourth Ford-class aircraft carrier, USS Doris Miller (CVN 81)."

GA-EMS recently announced that EMALS and AAG aboard CVN 78 achieved 8,157 successful aircraft launches and recoveries during the ship's Independent Steaming Events. Over 400 pilots, including new student aviators, achieved their initial carrier qualifications or recertified their proficiency using EMALS and AAG. Both systems successfully completed Aircraft

Compatibility Testing, which confirms the ability to launch and recover aircraft in the current naval air wing. The systems also provide greater flexibility over legacy systems to accommodate the future air wing, including both manned and unmanned aircraft.

U.S., U.K., Dutch Naval Forces Conduct Joint Exercise in Gulf of Aden

The combined, bilateral surface, air and sub-surface exercise was designed to enhance U.K., Dutch and U.S. maritime interoperability and demonstrate naval integration through a series of training scenarios. *U.S. NAVY*

GULF OF ADEN – The Queen Elizabeth (U.K.) and Ronald Reagan carrier strike groups (CSG), alongside the Iwo Jima amphibious ready group (ARG), conducted a large-scale joint interoperability exercise in the Gulf of Aden, July 12, Task Force 50 Public Affairs said in a release.

The combined, bilateral surface, air and sub-surface exercise was designed to enhance UK, Dutch and U.S. maritime interoperability and demonstrate naval integration through a series of training scenarios.

“Our team was proud to operate alongside the U.K. Carrier Strike Group during this unique opportunity to hone the full scope of our mutual capabilities,” said Rear Adm. Will Pennington, commander, Ronald Reagan CSG and Task Force 50. “By operating together at sea, we deepen our coalition partnerships and extend our global reach throughout the region’s critical waterways.”

Participating forces focused on the full spectrum of maritime warfare operations, practicing anti-air warfare, anti-surface warfare, and anti-submarine warfare tactics and procedures.

The crews exercised their abilities to conduct precision maneuvering, hunt simulated enemy submarines, provide layered defense against simulated air and surface threats, and conduct long range maritime strikes against simulated adversarial forces.

“The aircraft carrier is the ultimate expression of global maritime power,” said Commodore Steve Moorhouse, commander, United Kingdom Carrier Strike Group. “Queen Elizabeth, Ronald Reagan and Iwo Jima symbolize the might of the U.S. and UK partnership, and the ease with which our naval and air forces can combine here in the Gulf of Aden, or anywhere else in the world.”

This also marks the second time this year the Iwo Jima ARG has operated alongside the U.K. carrier strike group, following an exercise off the coast of Scotland in May.

“The Iwo Jima ARG remains in a high state of readiness to support our partners and allies as an effective amphibious force,” said Capt. Darren Nelson, commodore, Amphibious

Squadron Four. “Operating with the Ronald Reagan and UK carrier strike groups allows us to better address common threats to regional security.”

Participating units included aircraft carrier HMS Queen Elizabeth (R 08) with embarked F-35B Lightning II Joint Strike Fighters from Royal Air Force 617 Squadron and U.S. Marine Corps Fighter Attack Squadron (VMFA) 211; aircraft carrier USS Ronald Reagan (CVN 76) with embarked Carrier Air Wing (CVW) 5 and Destroyer Squadron 15; amphibious assault ship USS Iwo Jima (LHD 7) and embarked 24th Marine Expeditionary Unit, anti-submarine frigate HMS Richmond (F 239); Dutch frigate HNLMS Evertsen (F 805); guided-missile destroyers USS The Sullivans (DDG 68) and USS Halsey (DDG 97); and guided-missile cruiser USS Shiloh (CG 67).

The Ronald Reagan CSG and Iwo Jima ARG are deployed to the U.S. 5th Fleet area of operations in support of naval operations to ensure maritime stability and security in the Central Region, connecting the Mediterranean and the Pacific through the western Indian Ocean and three strategic choke points.