

# NATO ASW Exercise Under Way off Sicily



Standing NATO Maritime Group 2 ships and submarines sail in formation in the Ionian Sea off the coast of Sicily Feb. 21 during Exercise Dynamic Manta 22. *NATO ALLIED MARITIME COMMAND MEDITERRANEAN SEA* – While the NATO maritime forces have had to navigate around the rocks and shoals of the global pandemic, it has not stopped them from exercising and raising their game in looking for adversary submarines in the Mediterranean.

The annual Dynamic Manta antisubmarine warfare exercises are conducted in the central Mediterranean, usually around Sicily, and takes advantage of the maritime patrol air bases at Sigonella and Catania in Italy. This year is no exception.

Ships, submarines, aircraft and personnel from nine allied nations will take part in the antisubmarine warfare and anti-surface warfare training exercises from Feb. 21 to March 4.

Submarines from France, Greece, and Italy have been joined by surface combatants from Canada, France, Greece, Italy, Spain, Turkey, the United Kingdom and the U.S. for the exercise. Maritime patrol aircraft from Canada, France, Germany, Greece, Italy, U.K. and the U.S. are supporting the simulated, multi-threat environment during the exercise.

The task group is joining up in Catania harbor. The nearby Italian naval helicopter base in Catania and U.S. Naval Air Station at Sigonella are supporting Dynamic Manta 22 operations. Logistical support is being provided from the Italian naval base at Augusta Bay.

Dynamic Manta is one of the two major antisubmarine warfare exercises led every year by NATO Maritime Command. Dynamic Manta involves NATO Standing Maritime Group Two in the Mediterranean. The other, Dynamic Mongoose, takes place in the North Atlantic in the summer, involving NATO Standing Maritime Group One.

“NATO’s maritime power lies in the ability of the standing forces to rapidly join with high readiness, high-capacity national forces to deliver effects when and where needed,” said U.S. Navy Rear Adm. Stephen Mack, commander, Submarines NATO, who is commanding Dynamic Manta 22. “Exercises like this, along with regular training between allied navy units and our multinational standing naval forces, is a force multiplier that provides a collectively trained and interoperable force, ready to work together as the maritime portion of the VJTF [Very High Joint Readiness Task Force].”

Mack added, “This exercise is a visible demonstration of the alliance’s ability to cooperate and effectively integrate. Alliance unit, solidarity, and cohesion are the core of NATO.”

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# AIs on the Prize: Competitions Foster Artificial Intelligence Applications for Naval Use



Advanced Naval Technologies Exercise 2021 provided government, industry and academia participants a collaborative, low-risk environment that leverages the Naval Research and Development Establishment's unique laboratories and ranges, while practicing operators and planners simultaneously explore advanced tactics and assess the operational relevance of emerging technologies. *U.S. NAVY / Joe Bullinger*

Recent initiatives by the Department of Defense to foster rapid innovation and modernization have involved conducting

prize competitions among existing and would-be defense contractors to develop technology for military use. The competitions enable small businesses to put forth and demonstrate their ideas in realistic scenarios and can, in time, lead to production contracts.

Artificial intelligence and machine learning is one area receiving intensive attention from the Defense Department because of the increasing challenges of managing overwhelming amounts of data and making decisions in a timely manner. The challenge is made even more acute because of the present sophisticated peer competition with China and Russia. The current politico-military situations in Ukraine, the Taiwan Strait and the South China Sea are scenarios in which AI/ML potentially can help decisionmakers. AI can have applications at the national level all the way down to the tactical level. The technology can help not only with situational awareness but also with predictions – indications and warning.

In a recent prize competition sponsored by the Department of Defense, a small company named BigBear.ai, headquartered in Columbia, Maryland, won the prize. The competition between 12 teams was a Project Overmatch AI Advanced Naval Technology Exercise, or ANTX.

Brian Frutchey, chief technology officer for BigBear.ai, said the company adapted for the Navy a program developed for the U.S Army, which was “dealing with hybrid warfare, the gray zone conflict out in Eastern Europe and wanting to find tools that could automate the sense-making of all of the different data that they need to look at for the hybrid warfare environment.”

It was not just “counting the planes and tanks and soldiers anymore,” Frutchey said. “They have to look at the economies, political relationships, migration of people, cyber activity, all these new domains that the strategic analyst needs to be cognizant of and needs to model into their anticipatory

intelligence.”

BigBear.ai built the Virtual Anticipation Network (VANE) – the weathervane – to point to where the winds of war were blowing. Now the dominant product at Big Bear.ai, VANE, funded by the deputy assistant secretary of defense for Special Operations in Low Intensity Conflicts, was used by the company to win the \$75,000 prize in the ANTX. BigBear.ai was one of 12 companies selected to participate in the competition, which was conducted during the last half of 2021.

Frutchey said in the ANTX the VANE was looking for telemetry for maritime vessels and aircraft, as well as weather, the information environment, among other domains “that we brought together so that we could inform when these things are happening with airplanes flying through the Taiwanese air defense zone [ADIZ],” including events leading up to and during the events of interest, such as Chinese aircraft entry into the ADIZ; rerouting of air traffic; even press releases. As the observation of the indicators is automated, human analysts are able to handle more data “and with a significant amount of agility be able to pivot to new situations faster than they could before.”

He says what sets BigBear.ai apart “is that we have built machine learning that expects data to not be the whole story. I think that’s key because especially for our defense and intelligence partners, you don’t always have control of the data that you’re trying to analyze. There’s always this uncertainty in the data where you have gaps and holes and inaccuracies and because of that we have to use machine learning that assumes that you’re going to be having those errors, those issues and, even further, you don’t always get to measure the stuff you want to measure.”

VANE presents its analysis on a dashboard on a monitor for analysts to observe. A “heat map or density chart” shows areas with a lot of activity in a given period.

“We also look at baseline behaviors,” Frutchey said. “The analysts get concerned when that level raises above some threshold. In the first week of October, it went to 56 [Chinese] sorties in a day at one point and they were using strategic bombers in some of those sorties. Those kinds of things are a normal low-level buzz, but I want to be alerted when the models predicting that a week from a now, a month from now, there is going to be above some threshold, or the rate of change is going to be significant. ... We give them those alerts, and the user can, of course, then drill into the alert and explore the forecast data. ... So, we were looking at aggressive activities in the South China Sea for the AI ANTX exercise.

“We also have scenario forecasts [that] allow you to assess courses of action,” he said. “What if Russia invades Ukraine? What will that do to the price of Bitcoin? Or what if, in the AI ANTX example, we asked the question, what if we ran a naval exercise in the Luzon Strait? What would that do to Chinese behaviors in the South China Sea? If we were to go with a carrier striker to the Luzon Strait and run a little naval exercise, what would that do to behaviors? And so, we can run those simulations and we can then show the user, here’s how the world would change a month from now if we were to run that exercise next week.”



NAVWAR Commander Rear Adm. Douglas Small presents the AI-based ANTX's first-place prize to Big Bear.ai Chief Technology Officer Brian Frutchet, right. *NAVWAR / Elisha Gamboa*

VANE is scalable, Frutchet said. "Vane is built to elastically scale in the cloud as large as it needs to go. It's actually one of the big powers on our platform is that it is completely serverless, which means it's not like it's a monolithic app that's a bunch of servers chewing up resources all day long. It's a collection of functions and, as the customers need those functions, the system is built to grab resources in the cloud, spin those up to do the work that's needed and then turn them off when the work is done. Our systems churn through terabytes of data to build these models at global scales."

Frutchet said the Overmatch ANTX win shows the company's prescriptive analytics are appropriate for operational as well as strategic purposes.

"We are beginning to talk to the program offices for major command-and-control systems, [such as] the Global Command-and-Control System-Maritime," he said.

### **Matching Best of Breed**

AI is also being applied on a tactical level. Draper, a company known for building ballistic-missile guidance systems, entered a competition last summer conducted by the Naval Surface Warfare Center Crane Division in Crane, Indiana. The prize challenge was to determine the feasibility of taking autonomy software and implementing it on another organization's hardware.

"I think what the government was trying to learn is how difficult is it to separate those two [software and hardware]," said Drew Mitchell, Defense Systems associate director at Draper and general manager of Draper's Tampa, Florida, office. "That way I can match best of breed software up with best of breed hardware. Generally, those aren't the same when the company delivers that end product to the government. And it's also very expensive. So, they're trying to figure out a way to reduce costs on some of these autonomous platforms."

The prize challenge was split into three phases. In Phase 1, Draper, which had a lot of experience developing platform-agnostic software, submitted a white paper that was accepted along with those of 20 other companies. Phase 2 was a simulated exercise which involved loading autonomy algorithms into a small quadrotor unmanned aerial system and navigating it inside a building, mapping the interior and identifying objects in the building, all without the aid of GPS.



Hydronalix's EMILY unmanned surface vessel and Adapt UAV.  
*HYDRONALIX*

Five contestants made it to Phase 3, which involved an actual demonstration of the scenario of Phase 2 using a Hydronalix

quadrotor drone into which their respective software was loaded.

“It was completely autonomous, so you give the drone some sort of basic instruction, basically, fly forward and then it takes it over from there,” Mitchell said. “It senses the environment, and it does that through cameras, and it uses the same camera to do the navigation algorithm using a vision-based navigation system. It uses the same camera to collect a map of the environment or generate a map of the environment. A lot of that is very processor intensive. In a small package, like a small drone quadcopter not much bigger than a book, there’s not a whole lot of processor available on there to do all that stuff.”

Draper used vision-aided navigation algorithms it has used in its other programs.

“We used what’s called a visual inertial odometry,” Mitchell said. “It’s a lot like how the human eye and brain work in terms of referencing objects as you see them and then as you move, your brain is still calculating, oh, I saw this point and now the point is three feet from me as I move closer to it, from that point it’s now two feet from me, and from that, you can infer a lot of direction. It’s not highly accurate but it’s enough accuracy to help the IMU [inertial measuring unit] on board. It aids the IMU, so the IMU doesn’t drift off widely.

“The predominant systems today use GPS to aid that inertial unit,” Mitchell explained. “GPS gives it a position, so it knows, okay, I see that point, and then I move again, I see that point, I know where I am. But if you’re indoors, GPS doesn’t work and the big push within the Department of Defense is to do things without GPS because they know in a future conflict it’s probably going to be one of the first things our adversaries take out. Using these vision-based techniques, you’re able to get clearly decent navigation accuracy in a

very small package and do this completely autonomously.

“We were able to show with very little time and resources and a very rudimentary hardware platform that the government provided us, we were able to navigate inside of a building with no GPS,” he said. “We were able to identify objects. We were able to map certain parts of an environment. Of course, it wasn’t optimal. The places that we did on our own were way better than what we’d developed through that process, but we did help the government understand that it is possible to do it.”

Draper came in second in the prize competition, with EPISCI coming in first.

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## **Navy’s CMV-22B Achieves Initial Operational Capability Designation**



Senior military leadership cross the flight deck to depart Nimitz-class aircraft carrier USS Carl Vinson (CVN 70), Feb. 9. Vinson is currently conducting routine maritime operations in U.S. 3rd Fleet. *U.S. NAVY / Mass Communication Specialist 3rd Class Megan Alexander*

The Navy announced initial operational capability for the CMV-22B Osprey, confirming the platform's operational readiness following the successful completion of its first deployment on Feb. 17, Naval Air Systems Command said Feb. 18.

The aircraft was formally declared IOC on Dec. 14, 2021, aligning with the scheduled first-quarter fiscal year requirement.

“The CMV-22’s maiden deployment with Carrier Air Wing [CVW] Two and the [USS Carl] Vinson [CVN 70] team is an operational success, giving me the confidence necessary to make the declaration,” said Rear Adm. Andrew Loiselle, director, Air Warfare Division, N98, Office of the Chief of Naval Operations. “As we continue to deliver the advanced platforms that will make up the Air Wing of the Future, the CMV-22B

provides the necessary support and more to carry our future force.”

Loiselle’s designation marks a key milestone in the design, development, acquisition and testing of the CMV-22B and confirms its relevance and readiness to meet the needs of the Navy’s carrier onboard delivery mission. The aircraft transports personnel, mail, supplies and cargo from shore bases to aircraft carriers at sea, and will eventually replace the C-2A Greyhound.

“IOC designation is more than a stamp of approval,” said U.S. Marine Corps Col. Brian Taylor, V-22 Joint program manager. “It is a vote of confidence from top Navy leadership that the design, testing and production of this aircraft meet the logistical needs of the carrier air wings designated to fly the CMV-22B.”

This past summer marked the first deployment for the CMV-22B. Fleet Logistics Multi-Mission Squadron (VRM) 30 embarked on the USS Carl Vinson alongside the F-35C Lightning II and E-2D Advanced Hawkeye squadrons. The first deployed detachment has executed a mission completion rate of 98% and a mission-capable rate of 75%. The CMV-22B is a crucial element of future carrier airwings due to the cargo capacity needed to transport F-35 power modules and additional logistics support for future carrier air wing deployments with next-generation platforms.

“This aircraft went from first flight to first deployment in 19 months, a feat possible through the dedication of the Navy’s acquisition, engineering, test and operational communities, as well as industry, all working in tandem, toward a common goal,” said Taylor.

With 50% more internal fuel than the Marine Corps’ Osprey variant, CMV-22B can transport up to 6,000 pounds of cargo and personnel over a 1,150 nautical mile range. The Navy

redesigned the forward sponson fuel tanks and added two wing fuel tanks to add capacity and extend the flight range.

“As our fighter/attack and surveillance aircraft expand in both capability and size to extend the range of the carrier air wing, we must also evolve our support aircraft, in tandem, to supply those platforms. The CMV-22B will transport cargo and personnel to outfit the most advanced aircraft carrier strike groups as we continue to meet the needs of our missions worldwide,” said Taylor.

The program will continue to refine and test capabilities on the aircraft, addressing the agile needs of the fleet. To date, Bell Boeing has delivered 14 aircraft with 44 on contract and full operational capability expected in 2023.

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**Coast Guard Cutter James  
offloads More than \$1.06  
Billion in Illegal  
Narcotics**



The Coast Guard Cutter James' (WMSL 754) crew offloaded approximately 54,500 pounds of cocaine and 15,800 pounds of marijuana, worth approximately \$1.06 billion, Feb. 17, in Port Everglades, Florida. *U.S. COAST GUARD / Petty Officer 3rd Class Jose Hernandez*

MIAMI – Coast Guard Cutter James' crew offloaded approximately 54,500 pounds of cocaine and 15,800 pounds of marijuana worth approximately \$1.06 billion on Feb. 17 at Port Everglades, Florida, the Coast Guard 7th District said in a release.

The ship's crew set new records during their 90-day patrol for the largest single cocaine interdiction at 10,915 pounds, worth \$206.4 million, and the largest single marijuana interdiction at 3,962 pounds, worth \$3.59 million, the greatest amount of contraband interdicted during an Eastern Pacific patrol.

The Coast Guard's strong international relationships, specialized capabilities and unmatched authorities, allowed for a unity of effort to disrupt transnational criminal organizations.

The drugs were interdicted in international waters of the Eastern Pacific Ocean and Caribbean Sea by crews from:

- Coast Guard Station San Juan
- Coast Guard Cutter James
- His Netherlands Majesty's Ship Holland
- Coast Guard Cutter Stone
- Coast Guard Cutter Griesser
- USS Milwaukee
- Coast Guard Cutter Northland
- Coast Guard Cutter Diligence
- Coast Guard Cutter Margaret Norvell

"The best part of my job is being able to stand here at the end of a patrol and provide visibility on the incredible efforts from crewmembers who have volunteered for the challenging and dangerous duties to keep our shores safe," said Capt. Todd Vance, the commanding officer of the Coast Guard Cutter James. "Each interdiction is a complex evolution and no two interdictions are the same. In fact, the James' crew conducted simultaneous interdictions of two go-fast vessels 55 miles apart this patrol, showcasing their dedication and professional execution of the counter-drug mission."

Numerous U.S. agencies from the departments of Defense, Justice and Homeland Security cooperated in the effort to combat transnational organized crime. The Coast Guard, Navy, Customs and Border Protection, FBI, Drug Enforcement Administration and Immigration and Customs Enforcement, along with allied and international partner agencies, play a role in counter-drug operations.

The fight against drug cartels in the Eastern Pacific Ocean and the Caribbean Sea requires unity of effort in all phases from detection, monitoring and interdictions, to criminal prosecutions by international partners and U.S. Attorneys' Offices in districts across the nation. The law enforcement

phase of counter-smuggling operations in the Eastern Pacific Ocean is conducted under the authority of the Coast Guard 11th District, headquartered in Alameda, California, and the law enforcement phase of operations in the Caribbean is conducted under the authority of the Coast Guard 7th District, headquartered in Miami. The interdictions, including the actual boardings, are led and conducted by members of the U.S. Coast Guard.

The Coast Guard Cutter James is a 418-foot national security cutter homeported in Charleston, South Carolina.

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## **Marine General: Exercises Don't Pressure-Test Logistics for Real-World Operations**



U.S. Marine Corps Lt. Gen. George W. Smith, commanding general of I Marine Expeditionary Force, speaks with Cpl. Brady Abbott, left, regarding I MEF Support Battalion's Mission Readiness Exercise at Marine Corps Base Camp Pendleton, Dec. 8, 2021. *U.S. MARINE CORPS / Lance Cpl. Gadiel Zaragoza*

ARLINGTON, Va. – A Marine Corps general who commands one of the Corps' three Marine expeditionary forces said logistics does not get a realistic challenge when military exercises are executed, primarily because of the short duration of the exercises.

"When I focus on a particular concern, I would offer that we're not placing enough emphasis on logistics, and particularly logistics in a distributed and contested maritime environment," said Lt. Gen. George Smith, commander of the I MEF, based in California, speaking on a panel of the West2022 conference sponsored by the U.S. Naval Institute and the Armed Forces Communications and Electronics Association.

"I say that because it [logistics] is hard to exercise," Smith said. "Exercises truly aren't long enough to truly exercise

and pressure-test logistics. In the war games that I've participated in, far too often forces are where they ideally would like to be with a whole bunch of sustainment piled up. The war games don't last long-enough to test logistics."

Smith said "logistics is undoubtedly the pacing function when we talk about operations in the Pacific. When you look at the vast expanse of the Pacific, and all the attendant challenges, logistics is going to be that pacing function. So, as I MEF looks to shifting to the Pacific and get west of the IDL [International Date Line], our logistics team is looking really hard at updating and developing logistics nodes and distribution sites and looking at a whole new prepositioning constructs for the MEF so that we can seamlessly and effectively transition from competition steady-state campaigning to conflict. Without logistics, without that sustainment, we will not be able to do that.

"It must nest within INDO-PACOM's [U.S. Indo-Pacific Command's] larger logistics posture and I would add that we're working hard to reduce what is already a strained TRANSCOM [U.S. Transportation Command] capacity and what the expectations of the joint force are," he said.

Smith said the Corps is looking how to "bridge the gap of theater to operational to tactical logistics, often referred to as the last tactical mile," which he said logisticians call the "'last logistical mile.'"

The I MEF commander said his command would team with the Marine Corps Warfighting Lab to bring a stern-[ramp] landing vessel to the U.S. West Coast to exercise "as part of exercising that last tactical mile, that last logistics mile."

Smith said exercising with the vessel "would help us in our future operating concepts to deliver that logistics to the warfighter in these distributed locations."

The Navy is developing two new classes of ships to support Distributed Maritime Operations and Expeditionary Advance Base Operations. The light amphibious warship is being designed to support Marine littoral regiments and other forces and will have bow ramp for discharging personnel and vehicles on a shore. The next-generation logistics ship will be smaller and less expensive than the Combat Logistics Force's replenishment ships.

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## **Noble Fusion 2022 Prepares Maritime Forces for Distributed Maritime Operations in the Pacific**



Ships of the America and Essex Amphibious Ready Groups and Abraham Lincoln Carrier Strike Group fall out of formation with the Japan Maritime Self-Defense Force during operation Noble Fusion. Front row: Landing craft, air cushion from the USS Essex (LHD 2). Second row, left to right: USS America (LHA 6), USS Abraham Lincoln (CVN 72), Essex. Third row, left to right: USS Dewey (DDG 105), JS Kongō (DDG 173), USS Mobile Bay (CG 53), USS Spruance (DDG 111). Back row, left to right: USS Ashland (LSD 48), USS Miguel Keith (ESB 5). *U.S. NAVY / Mass Communication Specialist 3rd Class Thaddeus Berry*

PACIFIC OCEAN – A multi-national and multi-strike group conducted a sweeping series of operations the Western Pacific earlier this month.

Noble Fusion 2022 took place Feb. 3-7, involving two Amphibious Ready Groups with embarked Marine Expeditionary Units along with a Carrier Strike Group. U.S. Army and Air Force units, and units of the Japan Self Defense Forces, also took part.

The exercise was led by Combined Task Force 76/79. According to a Navy statement, Noble Fusion 2022 units operated from

“the Luzon Strait to the Miyako Strait and the East China Sea, encompassing a wide swath of the First Island Chain, including littoral areas in the vicinity of Okinawa.”

“For the first time since 2018, two Amphibious Ready Groups with embarked Marine Expeditionary Units conducted operations together in the Indo-Pacific region,” said Navy spokesperson Lt. Cmdr. Sherrie Flippin. “The most recent exercise Noble Fusion highlighted Naval Expeditionary Forces’ capability to rapidly aggregate Marine Expeditionary Unit/Amphibious Ready Group teams at sea with joint force elements, allies and a Carrier Strike Group, in order to conduct sea-denial, seize key maritime terrain, guarantee freedom of movement, and create advantage for U.S., partner and allied forces.”

The exercise commenced with amphibious maneuvers to demonstrate the ability to seize key maritime terrain involving the 11th MEU/USSESS Essex (LHD 2) ARG and Carrier Strike Group-3’s USS Abraham Lincoln (CVN-72) flying AV-8B Harriers, MV-22B Ospreys and a Navy E-2D Advanced Hawkeye over the Luzon Strait. Abraham Lincoln was escorted by the Arleigh Burke-class destroyer USS Spruance (DDG 111) and the Ticonderoga-class cruiser USS Mobile Bay (CG 53).

Later, the 31st MEU/USSESS America (LHA-6) ARG conducted strikes in the First Island Chain with F-35B Lightning II fighters. Additionally, F-35B’s of Marine Aircraft Group 12 out of Iwakuni, Japan, as well as F-15C Eagles with the U.S. Air Force’s 18th Wing out of Kadena Air Base, teamed up with a P-8 Poseidon from Task Force 72, to conduct a maritime strike.

“This type of training demonstrates the resilience and interoperability with our joint forces and our partners and allies,” said Col. Michael Nakonieczny, commander of the 31st MEU, speaking to reporters Feb. 16.

“It’s important for us to consider ourselves partners, trying to figure out how we become better warfighters as a combined

team,” said Capt. Greg Baker, commodore of Amphibious Squadron 11, who joined Nakonieczny on the call with journalists.

USS Dewey (DDG 105) and JS Kongo (DDG 173) conducted surface operations to protect and defend the force. Commander Destroyer Squadron 7 was the surface warfare commander throughout the exercise.

“Sea-denial operations with cruisers and destroyers, seizing key maritime terrain with aviation and surface movement, guaranteeing freedom of movement – these are the things we do every day in the Indo-Pacific,” said Navy Capt. Tom Ogden, the DESRON 7 commodore. “This exercise validates the ability of U.S. forces and allies to establish sea control and maintain readiness while also providing security and enabling stability.”

Brig. Gen. Kyle Ellison, commanding general, 3rd Marine Expeditionary Brigade and CTF-79 commander, said Noble Fusion 2022 was about using the sea as maneuver space to achieve positional advantage.

“It was about exercising our ability to maneuver critical capability to locations in the time and space of our choosing,” Ellison said. “We achieved positional advantage with the integration of two ARGs with their associated MEUs enabled by a carrier strike group. These capable warships must remain a critical component of our integrated deterrence strategy. Rest assured, we proved as an integrated, naval, joint and allied force that we are completely committed to a free and open Indo-Pacific region. We are effectively contributing to that goal now and our operational prowess will only improve.”

The capstone event was a night strike in the First Island Chain by F-35C Lightning II aircraft from Lincoln and AV-8B Harriers from Essex, along with F-18E Super Hornets acting as an aggressor force. Night aerial refueling supported the

strike, with 11th MEU AV-8B Harrier attack aircraft being refueled by KC-130J Hercules aircraft of Marine Aircraft Group 12.

“Noble fusion has been an incredible opportunity to rapidly, and at a time and place of our choosing, demonstrate that when our allies and U.S. joint forces come together, we are the premier fighter force in the region,” said Rear Adm. Chris Engdahl, commander of Expeditionary Strike Group 7/Task Force 76. “Seamlessly integrating our advanced platforms alongside our professional staffs at sea and ashore allowed us the chance to reinforce our command and control in the air, on the ground, at sea, and below the surface.”

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## **First Sea Lord: Royal Navy Is 'Back to the Modern Era,' Tilting to the Indo-Pacific**



Chief of Naval Operations Adm. Mike Gilday, left middle, meets with Royal Navy Adm. Sir Ben Key, First Sea Lord and Chief of the Naval Staff of the United Kingdom. *U.S. NAVY / Mass Communication Specialist 1st Class Sean Castellano*

ARLINGTON, Va. – The head of the United Kingdom’s Royal Navy said his fleet is modernizing and expanding its reach around the world to respond to the current and future challenges.

“It’s the end of the beginning for us, “Adm. Sir Ben Key, First Sea Lord and chief of staff of the U.K. Royal Navy, speaking Feb. 16 at the Center for Strategic and International Studies, a Washington think tank, commenting on the Royal Navy’s return to operating large aircraft carriers.

Key said he was challenged by the government to grow the Royal Navy and focus on the changing competition in the world, away from a 20-year focus in the Middle East to more of a tilt to the Indo-Pacific region.

The 2021 deployment of the Royal Navy’s Carrier Strike Group 21 – centered on the new carrier HMS Queen Elizabeth and its fifth-generation strike fighters, F-35Bs Lightning IIs – all

the way to Japan and back was termed by Key as a “reaching deployment.”

“We’re merely bringing our history back to the modern era,” Key said, also noting that “we’re back in the big carrier game.”

The HMS Queen Elizabeth and the HMS Prince of Wales were designed from the keel up to support and operate fifth-generation fighters, he noted.

Decades ago, the Royal Navy operated several aircraft carriers and maintained a significant naval presence “east of Suez,” as strategists and historians called the presence.

Key also mentioned the presence in the Pacific of two Royal Navy offshore patrol vessels, HMS Spey and HMS Tamar, which are on long-term multi-year deployments to the region, engaging with partner nations.

“We want to be part of an ongoing dialogue,” he said, noting the need to enforce rules-based order in the maritime domain, including efforts against transnational crime and fisheries enforcement. He said the Royal Navy needs to work alongside the navies and coast guards of the United States, Australia, New Zealand, France and the South Pacific island nations.

Key cited the recent AUKUS agreement “as a good example of opening up rather than closing down” and said that it would reduce barriers to sharing, and not just in the realm of nuclear-powered submarines.

He sees a benefit of Royal Navy presence in the Indo-Pacific region as not only beneficial with navy leadership but also opportunities for the Royal Navy to learn.

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# Navy Orders Six CH-53K Helicopters for Israel



An artist's rendering of a CH-53K helicopter for the Israeli air force. *SIKORSKY AIRCRAFT*

ARLINGTON, Va. – The U.S. Navy has ordered six CH-53K King Stallion helicopters for the Israeli air force, following an agreement signed in December.

The Naval Air Systems Command awarded Sikorsky Aircraft a \$372 million fixed-price incentive contract modification under the Foreign Military Sales program “to exercise an option for the production and delivery of four low-rate initial production, Lot 6, CH-53K Heavy Lift aircraft, as well as associated aircraft programmatic and logistical support for the government of Israel,” the Defense Department said in a Feb. 15 announcement.

The Israeli air force and the U.S. government signed an agreement Dec. 4 for the procurement of the CH-53Ks.

The CH-53K is in production for the U.S. Marine Corps as the

service's newest heavy-lift helicopter and is replacing the CH-53E Super Stallion. In Israeli service, the CH-53Ks will replace the 50-year-old CH-53D Sea Stallion helicopters, which are named Yasurs by Israel. The King Stallions primarily will support Israeli special operations forces, but also support other vertical lift missions and rescue operations.

Delivery of the Israeli CH-53Ks is expected to be completed by November 2025.

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## **USS Anchorage, 1st Marine Division Exercise Waterborne Capabilities of ACVs**



U.S. Marines assigned to the 3rd Assault Amphibian Battalion,

1st Marine Division, conduct waterborne training with an Amphibious Combat Vehicle from shore to loading amphibious transport dock ship USS Anchorage (LPD 23) at Marine Corps Base Camp Pendleton, California, Feb. 12. *U.S. MARINE CORPS / Lance Cpl. Willow Marshall*

PACIFIC OCEAN – U.S. Marines assigned to the 3rd Assault Amphibian Battalion, 1st Marine Division participated in a waterborne training evolution with Amphibious Combat Vehicles aboard amphibious transport dock ship USS Anchorage (LPD 23) in the Pacific Ocean, Feb. 12-13, Expeditionary Strike Group 3 said Feb. 15.

The two-day training evolution focused on the safety and ship-to-shore capabilities for both the Marine Corps and Navy, part of a larger training plan to refine tactics and doctrine for amphibious operations.

“The safety of our Marines and Sailors is a top priority, especially as we continue to test the capabilities of the newest Marine Corps platform,” said Rear Adm. Wayne Baze, commander, Expeditionary Strike Group 3. “The Sailors and Marines involved have received extensive training on operation of the craft, providing the Navy and Marine Corps team the opportunity to rehearse together for real-world events.”

During the evolution, the ACV demonstrated its survivability, maneuverability and robust swim capabilities by participating in a series of open-ocean swims between USS Anchorage and Marine Corps Base Camp Pendleton, California. USS Anchorage and designated safety boats remained in close proximity of the ACVs throughout the entirety of the amphibious operations, ensuring safety in all aspects of training.

“As we strengthen naval warfighting as a force and pivot to operating in a contested littoral environment, conducting safe, realistic training on this platform advances our ability to respond swiftly to global threats in austere maritime conditions,” said the commanding general of the 1st Marine Division, Maj. Gen. Roger B. Turner. “The Amphibious Combat

Vehicle is purpose-built to provide expeditionary lethality for Marines on the move.”

The Marines with 3rd Assault Amphibian Battalion, 1st Marine Division worked alongside Anchorage’s crew to successfully demonstrate the ACV’s ability to launch and recover from the well deck.

“This underway period is a true testament of the rigorous training our Sailors and Marines are doing to prepare for ACV waterborne operations,” said Baze. “They spend countless hours preparing, which is evident in the professional manner in which they conducted themselves throughout this evolution. I could not be more proud of each and every one of them.”

The ACV is an eight-wheel drive, armored vehicle with open-ocean capabilities and land mobility. It’s a unique combination of previously fielded amphibious vehicles and new technological advances to the fleet’s capabilities. The ACV’s ability to use the ocean and waterways to carry Marines and equipment provides expeditionary readiness to Marines on the move, wherever their mission takes them, across a variety of operating environments.

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## **U.S. Pacific Fleet Will Leverage Knowledge, Expertise of Naval Postgraduate School With New Nimitz Research**

# Group



The Naval Postgraduate School and U.S. Pacific Fleet announced the establishment of the Nimitz Research Group on Feb. 16. Under the aegis of NPS' Naval Warfare Studies Institute, the new organization will leverage NPS' interdisciplinary education and research capabilities and institutional knowledge in new ways to meet the needs and emerging challenges of the Pacific Fleet. *U.S. NAVY*

MONTEREY, Calif. – The Naval Postgraduate School at Monterey, California, and Commander, U.S. Pacific Fleet are joining forces to harness educational and research knowledge and expertise specifically as it pertains to the Indo-Pacific region with a new effort, the Nimitz Research Group.

Nimitz Research Group will fall under NPS' Naval Warfare Studies Institute, which will provide NPS faculty and students who will "serve as an extension of the PACFLT staff in Hawaii by participating in fleet exercises and events and providing additional research capacity and subject matter expertise," according to an Naval Postgraduate School press release.

The Nimitz Research Group was launched Feb. 16 by the NPS president, retired Vice Adm. Ann E. Rondeau, and Adm. Samuel

Paparo, commander of the U.S. Pacific Fleet.

“The establishment of the Nimitz Research Group marks a further evolution in our outstanding partnership with the U.S. Pacific Fleet,” said Rondeau. “We have always seen NPS as a center of excellence and innovation, a place where our faculty and students work together to solve the operational challenges of our fleet and force. Through the Nimitz Research Group, we will be able to provide those solutions by deploying our talent and our experience in direct support of our Pacific Fleet partners.”

According to NPS spokesman Lt. Cmdr. Ed Early, the Nimitz Research Group is modeled after Naval Warfare Studies Institute’s Bucklew Research Group, which already provides similar support to Naval Special Warfare. Early said the Navy SEAL officers who are Bucklew scholars attending NPS on a two-year master’s degree program serve as an extension of Naval Special Warfare Group commands, who in turn benefit from the SEALs’ education, research efforts, interactions with the academic community, and proximity to Silicon Valley.

“The example set by the Bucklew Research Group proved to be an ideal model for PACFLT’s requirements.,” Early said. “As a result, the Nimitz Research Group was conceived with the goal of providing coherence and unity of action for NPS’ support to PACFLT.”

Paparo, himself a graduate of NPS’ Systems Analysis program, wanted to leverage the Bucklew Research Group model to focus the unique capabilities of Naval Postgraduate School faculty members as well as the operational experience of NPS’ 2,500 mid-career officers, senior noncommissioned officers and civilians to support the commander of Pacific Fleet’s priorities and research needs.

“The Nimitz Research Group links the intellectual rigor of NPS, its key location in the nation’s hub of technical

innovation and the expertise of innovative warfighters in the Pacific Fleet to research, develop and implement new and dynamic combat capabilities,” said Paparo. “Together we will build critical advantages over our competitors to maximize our strengths – battlespace awareness, agility, maneuverability and collective capabilities of the joint forces.”