

# CNO: Thinking on Unmanned Systems Changed by Experimentation



The Sea Hunter medium displacement unmanned surface vessel launches from Naval Base Point Loma for the U.S. Pacific Fleet's Unmanned Systems Integrated Battle Problem 21, April 20, 2021. *U.S. NAVY / Mass Communication Specialist 2nd Class Thomas Gooley*

ARLINGTON, Va. – The Navy's top officer said his thinking about integrating unmanned systems into the fleet has been changed by the observations of the service's recent experimentation during fleet exercises.

"We are learning so fast in fielding these capabilities out to the fleet or potentially fielding them quickly inside the FYDP [Future Years Defense Plan] we may be able to close capability gaps with small, expendable unmanned [systems] off of any

platform rather than thinking we have to build a larger [platform],” said Chief of Naval Operations Adm. Michael Gilday, speaking April 28 in a Maritime Security Dialogue event on the future of the U.S. Navy conducted by the U.S. Naval Institute and the Center for Strategic and International Studies, and sponsored by HII.

Gilday said by the time the DDG(X) program is underway “we will be in a better place with LUSV [large unmanned surface vehicle]. I don’t know if we’ll have an unmanned medium [USV] or not. The stuff that [U.S. 5th Fleet Commander Vice Adm. Brad] Cooper is doing with CTF-59 and using small, unmanned [systems] on the sea and in the air to sense the environment and make sense of it in order to yield a common operational picture for allies and partners as well as the 5th Fleet headquarters has changed my thinking on the direction of unmanned. ... I’m not saying that we don’t need an MUSV [medium USV]; I’m saying it will cause us to consider numbers and what potential payloads they’re going to have.”

Gilday said unmanned systems have “so much potential, coupled with AI [artificial intelligence] software integration that it’s difficult to put a definitive number on the numbers we’re going to have in the air, on the sea, and under the sea. I like the way we’re going with the unmanned task force that has tied together acquisition specialists, requirements folks, scientists from the Navy research labs, and also the fleet with CTF-59 in terms of real-time exercising, experimenting, and developing CONOPS [concepts of operations]. It’s been a powerful awakening experience for us. Also, industry and foreign partners have dived in on this thing.”

Gilday said the Navy’s four experimental large and medium USVs – two Project Overlord vessels and the Sea Hunter MUSV and Sea Hawk USV – have accrued 41,000 nautical miles of autonomous travel so far.

“In terms of the mastery of COLREGS [Convention on the

International Regulations for Preventing Collisions at Sea] and vessel avoidance, we think we're in a really good place with that," he said. "To send an unmanned [vessel] out into the ocean, with a mission, to expect that unmanned to come back and salute and say, 'mission complete,' is a different problem set. That's something that we're working on, but, quite frankly, that's going to be a journey for us."

Gilday said USVs may need to be "minimally manned for a while. I'd like to get to a place with large USVs where we can deploy them with strike groups and ARGs [amphibious ready groups] in the 2027-2028 time frame. A lot of the work we're doing right now with the Unmanned Task Force and CTF-59 hopefully will buy down technical risk, make us an informed customer with respect to what we're going to buy – both in engineering plant and a command-and-control framework – so that we can begin to deploy those things and do the same things we're doing with CTF-59 to earn stuff out there as we're using these LUSVs and perhaps medium USVs. I don't want to wake up in 15 years and say, we bought the wrong kind of LUSV with the wrong engineering plant. ... We're trying to prove ourselves in an evolutionary, deliberate, informed kind of way."

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## **Navy Proposes Conversion of 2 Active P-8 Squadrons to Reserve**



Aviation Structural Mechanic (Safety Equipment) 3rd Class Julian Marriagabossio, left, assigned to the “Grey Knights” of Patrol Squadron (VP) 46, signals to the pilots of a P-8A Poseidon maritime patrol aircraft, Jan. 7, 2021, at NAS Sigonella, Italy. *U.S. NAVY / Mass Communication Specialist 2nd Class Austin Ingram*

ARLINGTON, Va. – The U.S. Navy proposes to shift two P-8A Poseidon patrol (VP) squadrons from the active component to the reserve component in 2026, budget documents show.

The Navy’s 2023 budget highlights book published this month shows a proposal to shift two VP squadrons – one from each coast – to the Navy Reserve. The Navy currently fields 12 P-8A-equipped fleet VP squadrons, six each at Naval Air Station Whidbey Island, Washington, and NAS Jacksonville, Florida. In addition, the Navy Air Reserve operates two P-3C Orion-equipped VP squadrons, one each at Jacksonville and Whidbey Island. These two squadrons are planned for transition to the P-8A in the next few years, which, if the above

conversion occurs, eventually would give the reserve component four P-8A VP squadrons.

The two current reserve VP squadrons, VP-62 at Jacksonville and VP-69 at Whidbey Island, frequently augment the active component force for operations and exercises.

“This force structure change supports the move to integrate the reserve component more towards a ‘total force’ solution in meeting steady state demands,” the budget highlights book says.

The Navy estimates the shift would result in savings of \$55.5 million over the Future Years Defense Plan.

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## **Navy to Adjust F/A-18 Service Life Modernization as Needed to Address Strike Fighter Shortfall**



An F/A-18E Super Hornet, assigned to the “Vigilantes” of Strike Fighter Squadron (VFA) 151, launches from the flight deck of the Nimitz-class aircraft carrier USS Abraham Lincoln (CVN 72) on April 13 during a U.S.-Japan bilateral exercise. *U.S. NAVY / Mass Communication Specialist Seaman Apprentice Julia Brockman*

ARLINGTON, Va. – The Navy is planning to use a “rheostat” approach to adjust the F/A-18E/F Super Hornet strike fighter Service Life Modernization (SLM) program to mitigate the strike fighter shortfall in the fleet, a senior service official said.

The SLM is a sustainment program designed to increase the service life of Block II F/A-18E/Fs. The initial SLM phase extended the service life from 6,000 flight hours to 7,000 flight hours. The program beginning in 2023 will increase the service life to 10,000 flight hours. The line also will be used to upgrade many Block II aircraft to the Block III configuration.

During an April 27 hearing of the House Armed Services

Committee's subcommittee on Tactical Air and Land Forces, the chairman, Rep. Donald Norcross (D-New Jersey), said in his opening remarks that "two years ago the strike fighter shortfall would have lasted until 2030. However, last year the Navy told us that the strike fighter shortfall would be resolved to zero in 2025, primarily due to the solid justification for terminating the new F/A-18 Super Hornet line."

Norcross said he was skeptical of this year's analysis of the F-35C production rate and the "lackluster" F/A-18E/F SLM program and the "non-rapid development of the Navy's Next-Generation Air Dominance [program]."

He said the Congress authorized the procurement of 12 F/A-18/E Super Hornets in the 2022 budget as "risk mitigation," aircraft the Navy said that it did not want. The Navy also did not request any Super Hornets in the 2023 budget proposal.

He said the Navy's strike fighter shortfall "will not be resolved until six years later [from 2025] in 2031 because of further unplanned reduction in F-35 purchases, reduced aircraft inductions into the F/A-18 [SLM] program."

Frederick "Jay" Stefany, performing the duties of assistant secretary of the Navy for Research, Development and Acquisition, told the subcommittee that said the SLM program had been "stabilized."

Rear Adm. Andrew Loisel, director, Air Warfare Division in the Office of the Chief of Naval Operations, said the Navy has drilled down on the issues with the SLM and has begun to turn around the cost of the program.

"In the past year we've seen a 30% percent cost reduction in our Phase One 7,500-hour SLM deliveries due to the implementation of best practices with pre-SLM grooming, engineering reutilization and overall touch-flavor learning and efficiencies," he said.

“We expect continued cost savings as SLM matures and we are executing our planned transition to full-kit, 10,000-hour SLM inductions if fiscal '23,” Loiselle said. “Full-kit inductions will provide full Block III capability identical to new production aircraft at one third of the cost, giving us 4,000 additional flying hours, or enough to fly for 13 additional years.

“Right now, our SLM plan is our rheostat that we’re using to control availability in the out years, depending on schedules and future budgets that are unknown at this point in time,” he said. “Right now, I do not plan to do SLM on the entirety of my Block II force and I do not plan to do it on my Block I force. If there are changes in the future that require additional capabilities [and] I need more Block III aircraft, then I have the ability to dial up that rheostat on SLM and be able to do that for a longer period of time and to potentially use the FRCs [Fleet Readiness Centers] to increase capacity for SLM beyond the currently planned 35 per year.”

Loiselle said two Block I Super Hornets were put through SLM but based on the results the Navy decided not to proceed with SLM of Block I aircraft “unless there is some requirement to do so in the future.”

Loiselle said the turn-around time of an SLM will be 15 months.

Boeing currently is building Block III Super Hornets to the Navy. At the current production rate, the production is expected to run to the first quarter of fiscal 2026, Loiselle said.

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# Navy Proposes Divestment of Special Ops Helicopter Squadron



Sailors assigned to the “Firehawks” of Helicopter Sea Combat Squadron 85 (HSC-85) prepare an MH-60S Seahawk helicopter for flight operations aboard Naval Air Station North Island in August 2020. *U.S. NAVY / Mass Communication Specialist 1st Class Chelsea Milburn*

ARLINGTON, Va. – The U.S. Navy is proposing to retire its only expeditionary helicopter squadron dedicated to support of special operations forces with the service’s 2023 budget request.

Helicopter Sea Combat Squadron 85 (HSC-85), a reserve squadron based at Naval Air Station North Island, California, is equipped with MH-60S Seahawk helicopters to support “Naval Special Warfare forces and other special operations forces

training and readiness,” according to the Department of the Navy’s 2023 budget highlights book.

The drawdown of HSC-85 would begin in 2023 with reduction in manpower and flying hour reductions would begin in 2024. Unless the MH-60S aircraft are needed elsewhere in the fleet, the aircraft would be placed in storage. The Navy estimates the program savings would amount to \$312.5 million over the Future Years Defense Plan.

HSC-85 originally was established as Helicopter Anti-Submarine Squadron 85 (HS-85) in 1970 at NAS Alameda, California, and equipped with the SH-3A Sea King helicopter, later upgrading to the SH-3D and SH-3H versions. The squadron moved to NAS North Island in 1993 and in October 1994 was redesignated Helicopter Combat Support Squadron 85 (HC-85), shifting to the roles of search and rescue, logistics and range support.

The squadron was redesignated HSC-85 in February 2006 and equipped with MH-60S helicopters. In 2011, special operations support became its primary role, and it was equipped with an older version of the Seahawk, the HH-60H. The Navy planned in 2016 to deactivate HSC-85 and its East Coast counterpart, HSC-84, but HSC-85 survived. The squadron in 2018 upgraded to the Block III version of the MH-60S.

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**Marine Corps’ New VH-92  
Presidential Helicopter  
Achieves Initial Operational**

# Capability



Marine Helicopter Squadron One (HMX-1) runs test flights of the new VH-92A over the south lawn of the White House on Sept. 22, 2018. *U.S. MARINE CORPS / Sgt. Hunter Helis*  
ARLINGTON, Va. – The Marine Corps’ VH-92A presidential support helicopter has achieved initial operational capability, according to the Department of the Navy.

The VH-92A, built by Lockheed Martin, has been going through testing and crew training and achieved IOC on Dec. 28, 2021. No announcement by the program office was made at the time. The IOC was announced in the Navy Department’s budget highlights book for fiscal 2023 which was published in mid-April.

The VH-92A reaching IOC was confirmed April 26 during a hearing of the Seapower subcommittee of the Senate Armed Services Committee by Frederick Stefany, who is performing the duties of the assistant secretary of the Navy for Research, Development and Acquisition.

“We achieved IOC of the VH-92 – the presidential helicopter –

and we are now starting the commissioning process with the White House to get that helicopter into the White House's fleet," Stefany said.

The presidential helicopter fleet is flown by Marine Helicopter Squadron One (HMX-1). Currently HMX-1 flies the VH-3D Sea King and VH-60N Black Hawk helicopters.

The fiscal 2023 budget proposal funds the VH-92A program at \$45.6 million and "continues developing product improvements for incremental incorporation to the VH-92A capability baseline to include enhancements to Wide Band Line of Sight [WBL0S] communication capability, cockpit upgrades, government furnished equipment, shipboard interoperability, software upgrades and commences developing product improvements for distributed network communications and vehicle performance enhancements."

The planned fleet of VH-92As will include 21 operational aircraft and two test aircraft. Full operational capability of the VH-92A is planned for the second quarter of fiscal 2023.

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## **Marine Corps Deactivates Two Helo Squadrons, One Temporarily**



U.S. Marines with 3D Radio Battalion prepare for transport by CH-53E Super Stallion helicopters assigned to HMH-463 at "LZ Kutree," Hawaii, Dec. 13, 2021. *U.S. MARINE CORPS / Cpl. Dalton J. Payne*

ARLINGTON, Va. – The U.S. Marine Corps has deactivated two helicopter squadrons in its march toward Force Design 2030, but one of the squadrons will be reactivated later this year, the service said.

Marine Heavy Helicopter Squadron 463 (HMH-463) – a CH-53E Super Stallion squadron known as Pegasus – was deactivated on April 21 at Marine Corps Air Station Kaneohe Bay, Hawaii. The unit, which had been based in Hawaii since 1971, had been drawing down over the year and transferring its helicopters to other squadrons.

Marine Light Attack Helicopter Squadron 367 (HMLA-367) – a unit known as Scarface – had operated AH-1Z Viper and UH-1Y Venom helicopters from Kaneohe Bay since 2012. It was deactivated on April 22, also at Kaneohe Bay.

However, HMLA-367 will be reactivated later this year at Marine Corps Air Station Camp Pendleton, California, where four other HMLA squadrons are stationed with Marine Aircraft

Group 39.

The two squadrons are the second and third to be deactivated as part of Force Design 2030, the Marine Corps concept to build a lighter, more agile force able to operate and survive inside an enemy's targeting zone. An MV-22B Osprey squadron, Marine Medium Tiltrotor Squadron 166 (VMM-166), was deactivated late last year.

The Corps still maintains two MV-22B squadrons at Kaneohe Bay – VMM-268 and VMM-363 – with Marine Aircraft Group 24. The service plans to establish a new KC-130J Super Hercules squadron at Kaneohe Bay to support the mobility of Marine forces in the Pacific.

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## **Marine Corps' King Stallion Ready to Run**



U.S. Marines with Marine Heavy Helicopter Squadron (HMH) 461 taxi in a CH-53K King Stallion after its first operational flight at Marine Corps Air Station New River, North Carolina, April 13. The flight signified the beginning of HMH-461's modernization from the CH-53E Super Stallion to the CH-53K King Stallion. *U.S. MARINE CORPS / Lance Cpl. Elias E. Pimentel III*

ARLINGTON, Va. – The Marine Corps' new CH-53K King Stallion heavy-lift helicopter achieved initial operational capability on April 22, Deputy Commandant for Aviation Lt. Gen. Mark Wise said in an April 25 release.

The first fleet CH-53K squadron, HMH-461, now has at least four CH-53Ks, the minimum number needed to reach IOC and the number needed for a detachment to deploy with a Marine Expeditionary Unit.

“In addition to meeting IOC criteria, the CH-53K successfully completed a thorough initial operational test and evaluation period that resulted in over 3,000 mishap free hours flown in various challenging environments and terrain,” the release

said.

“My full confidence in the CH-53K’s ability to execute the heavy lift mission is the result of successful developmental and operational testing conducted by Air Test and Evaluation Squadron (HX) 21 and Marine Operational Test and Evaluation Squadron (VMX) 1,” Wise said in the release.

The first deployment of the CH-53K is set for 2024. The Corps plans to field 5.25 fleet HMM squadrons with CH-53Ks. Col. Jack Perrin, the CH-53K program manager, told reporters earlier this month the “.25” is an extra four aircraft for one of the squadrons, with each of the other four squadrons to be equipped with 16 helicopters. Other CH-53Ks will be assigned to a fleet replacement squadron and test squadrons, while others will be in process through the maintenance pipeline.

The Marine Corps’ seven HMM squadrons equipped with the older CH-53E in recent years have operated with only 12 helicopters instead of 16 because of attrition over the years. One CH-53E squadron was deactivated last week and two more will be deactivated in the course of the commandant’s Force Design 2030 plan.

“The success to date of the CH-53K is a reflection of the hard work and effort by the Marines, Sailors and civilians at VMX-1, H-53 Program Office [PMA-261] and Marine Heavy Helicopter Squadron [HMM] 461, and the support we have received over many years from across the Department of the Navy and our industry partners,” Wise said.

The CH-53K is capable of providing nearly three times the lift capability of the CH-53E.

“The most notable attribute of the King Stallion is its ability to maintain increased performance margins in a degraded aeronautical environment, for example at higher altitudes, hotter climates and carrying up to 27,000 [pounds] out to 110 nautical miles; whereas, the CH-53E would be

limited to a 9,628-pound external load in the same environment,” the release said.

“The King Stallion boasts an engine that produces 57% more horsepower with 63% fewer parts relative to its predecessor, which translates to an expanded capability to deliver internal and external cargo loads, providing the commander a mobility and sustainment capability the MAGTF [Marine Air-Ground Task Force] has never had before.”

Supporting the Corps’ Force Design 2030, “the CH-53K will complement connectors that will enable littoral maneuver and provide logistical support to a widely disaggregated naval force.”

The Marine Corps has a requirement for 200 CH-53Ks. Full-rate production is planned for 2023. Full operational capability is scheduled for 2029.

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## **Navy Proposes Decommissioning 6th Fleet’s Command Ship in 2026**



The Egyptian navy frigate ENS Alexandria (F911) and the U.S. Navy amphibious command ship USS Mount Whitney (LCC 20) operate in the Red Sea in support of the newly established Combined Task Force 153, April 20. *U.S. ARMY / Cpl. DeAndre Dawkins*

ARLINGTON, Va. – The U.S. Navy has proposed in its 2023 budget to decommission the amphibious command ship USS Mount Whitney (LCC 20) during fiscal 2026.

The Mount Whitney has served as the flagship of the U.S. 6th Fleet since 2005, when it replaced the USS LaSalle (AGF 3).

The Navy is proposing the retirement of the Mount Whitney because its retirement “is mitigated by staff operating ashore,” the service said in its 2023 budget highlights book, citing a savings of \$179.7 million over the Future Years Defense Plan.

The 6th Fleet staff normally is stationed ashore in Naples, Italy. The Mount Whitney is homeported in nearby Gaeta.

The Mount Whitney is a Blue Ridge-class amphibious command

ship. It was commissioned on Jan. 16, 1971, and served until 2005 as the flagship of the U.S. 2nd Fleet. It underwent conversion to a Military Sealift Command ship and is operated by a hybrid Navy/Civilian Mariner crew but remains a commissioned ship under the command of a Navy captain. If retired in 2026, the ship will have served 55 years.

Currently, the Mount Whitney is deployed to the Red Sea and Gulf of Aden where it serves as the flagship of commander, Task Force 153, a new task force of the Combined Maritime Forces, an international coalition operating under commander, U.S. 5th Fleet/Naval Forces Central Command.

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## **Marine Corps to Use Leased Ships to Test Light Amphibious Warfare Ship Concept**



U.S. Military Sealift command's Spearhead-class expeditionary fast transport ship, City of Bismarck, floats while docked at the Commercial Seaport of Palau in Koror, Republic of Palau, Nov. 5, 2021. Spearhead-class ships may be used to test the concept for a light amphibious warfare ship. *U.S. MARINE CORPS / Cpl. Atticus Martinez*

ARLINGTON, Va. – The Marine Corps plans to lease two commercial ships over the next two years to experiment with the light amphibious warfare ship concept, also now being classed as the landing ship-medium.

Brig. Gen. Mark Clingan, assistant deputy commandant for Combat Development and Integration and deputy commanding general of Marine Corps Combat Development Command, speaking April 21 in a webinar of the National Defense Industrial Association, said the Corps was planning to lease a commercial “stern[-ramp] landing vessel” by late summer or early fall [2022]” to use to test the LAW/LSM concept.

Clingan said a second vessel would be leased in fiscal 2023 for the same purpose.

The general said the Corps also was looking at using Spearhead-class expeditionary fast ships – which do not have beach landing ramps – and utility landing craft – which do – as part of the concept experimentation.

The LAW will be designed to carry 75 Marines of a Marine Littoral Regiment and land them on a shore in support of distributed maritime operations and expeditionary base operations. Clingan said the ships would be able to operate within the weapons engagement zone and be less attractive targets for enemy missiles than would a larger amphibious warfare ship.

Clingan said that with each Marine Littoral Regiment comprised of nine platoons or units of action – one on each light amphibious warfare ship – 27 LAWs would be needed to support the three MLRs. Counting extra MLRs in the maintenance pipeline, the Corps lists 35 LAWs as its probable requirement.

The Navy plans to procure the light amphibious warfare ship beginning in fiscal 2025.

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## **Marine Corps May Keep More Tube Artillery, Osprey Squadrons in Force Design 2030**



An MV-22 Osprey aircraft, assigned to Marine Medium Tiltrotor Squadron 166 (Reinforced), departs the flight deck of amphibious assault ship USS Boxer (LHD 4) in 2016. *U.S. NAVY / Mass Communication Specialist 2nd Class Jose Jaen*

ARLINGTON, Va. – The Marine Corps continues to tweak its Force Design 2030, adjusting the number of tube artillery batteries, the number of MV-22B squadrons, the operation of a Marine Littoral Regiment and the size of an infantry battalion.

Under Force Design 2030, the Marine Corps is divesting itself of some force structure and weapon systems and building others to reshape the Corps to be more capable of operating inside a threat zone in the current era of great power competition.

Brig. Gen. Mark Clingan, assistant deputy commandant for Combat Development and Integration and deputy commanding general of Marine Corps Combat Development Command, speaking April 21 in a webinar of the National Defense Industrial Association, said the Corps is looking at retaining more tube artillery batteries, choosing to retain seven batteries instead of five.

The tube artillery batteries operate M777 155mm howitzers.

Clingan also said the Corps will continue to field 16 Marine Medium Tilt-rotor Squadrons rather than reduce to 14 squadrons. However, the number of MV-22B Osprey aircraft in each squadron would decrease from 12 to 10 aircraft. One squadron, VMM-166, was deactivated last year.

He said the Corps' force design plans "probably weighted too much on the Marine Littoral Regiment and did not really acknowledge that to appropriately be able to do the recon/counter-recon fight is going to require the full complement and scope of the Marine Air-Ground Task Force, and so MLRs are singular units but are still going to be very much a part of reaching back and employing the resources of the entire MAGTF.

Regarding the design of the MLR, Clingan said, "we probably focused too much on lethality without taking enough look or considering specifically the requirement to 'sense and make sense,' the mobility and maneuverability and also the need for deception. Now we're making refinements to that as well.

"Our initial thoughts were that MLR units would be sourced through UDP [the Unit Deployment Plan] rotation and now we're opening the aperture and think, maybe, some PCS [permanent change of station] personnel may be more suited to the terms of the units," he said.

The Corps has one MLR on strength, the 3rd MLR. Two more MLRs are planned in the future: the 12th and probably the 4th.

Regarding the size of an infantry battalion, "we initially thought we would be cutting that from about 896 [Marines and Sailors] down to 735," he said. Noting the need to make the battalions more "robust and capable," the number of personnel in a battalion "probably need to hover around numbers about 800-835 to have the capabilities it needs."