Analyst: Navy Needs to Re-Configure Carrier Air Wings for Future Fight

WASHINGTON – The Navy needs to change the structure of its future carrier air wings (CVWs) in the future to meet future threats, particularly in high-end combat against potential adversaries such as China and Russia, a team of defense analysts said in a published report.

"If the U.S. Navy is going to continue to invest in aircraft carriers, it need to re-consider how it's going to configure its [carrier] air wings," said Bryan Clark, a senior fellow at the Center for Strategic and Budgetary Assessments, a Washington think tank, speaking Feb. 7 at the center about the new report, Regaining the High Ground at Sea: Transforming the U.S. Navy's Carrier Air Wing for Great Power Competition.

The Navy's current CVW "is not designed for the way we're going to operate in the future," Clark said. "I would even go further to say, unless the Navy is going to re-configure its air wings, it should reconsider its continued investment in aircraft carriers."

Clark briefed the audience on worst-case scenario where an adversary such as China could launch a salvo of 600 1,000-pound-class weapons at a carrier strike group and recommended the type of defenses, including a CVW, that would be needed for a carrier to operate in the ocean in a high-end fight.

The report said that today's CVWs "lack the reach to operate at sufficient ranges from operational areas; the stealth to fight in contested environments; and the specialized capabilities in IRS&T [infrared search and track], EMW [electromagnetic warfare], and ASW [anti-submarine warfare] needed to defeat adversary platforms and systems."

Clark sees the need for a CVW to move toward including more unmanned aircraft. He recommended development of three new aircraft types: an unmanned air combat vehicle (UCAV); an unmanned refueling aircraft, initially the MQ-25; and FA-XX, a new fighter with a longer strike range.

The report's recommendations for re-configuring the carrier air wing by 2040 include:

* Sustaining planned procurement of the F/A-18E/F strike fighter through fiscal 2023.

* Sustaining procurement of the F-35C strike fighter through the first half of its planned production, ending in fiscal 2024.

* Develop an FA-XX fighter, a derivative of an existing fighter, by 2024.

* Develop a low-observable UCAV attack aircraft for production by 2025.

* Continue development of the MQ-25 aerial refueling UAV and increase overall number of tanker aircraft to 12 per air wing. Also,
develop the UCAV as a tanker for the mid-to-late 2030s.

* Retire the EA-18G electronic attack aircraft as they reach the
end of their service lives during the 2030s and replace them with
UCAVs equipped with the Next-Generation Jammer and also with

expendable UAVs and missiles.

* Field a rotary wing MALE [medium-altitude, long-endurance] UAV
(in concert with the Marine Corps) to augment the carrier-based
helicopter squadrons and assume some of the ASW missions.

Clark's team for the report included Adam Lemon, Peter Haynes, Kyle Libby and Gillian Evans.

Marines to Leverage Unmanned Systems, More Capable Amphib Fleet to Fight Great Power Competition

WASHINGTON – The Marine Corps and the amphibious fleet will be critical to prevailing in the emerging great power competition in which U.S. forces will have to "fight to get to the fight" against China's growing military capabilities, the Marine's top combat development officer said Feb. 7.

To meet that challenge, "We have to work on some things to make this amphibious force more lethal, more survivable," Lt. Gen. David H. Berger, the Deputy Commandant for Combat Development and Integration, told a Capitol Hill forum sponsored by the Amphibious Warship Industrial Base Coalition.

That would include installing vertical launch tubes, "or other ways to make the ships more lethal" to give them organic ways to defend themselves, "including air defense," Berger said,

noting the services has had decades of not having to worry about being attacked from the air. Berger said. And they must do that while decreasing ships' electromagnetic signature because "if they can find us, they can target us."

In addition to their traditional role of projecting Marine forces ashore, Berger said the amphibs "can be mother ships," capable of launching and recovering scores of unmanned systems "from sovereign territory. Why wouldn't you want to do that?"

Those unmanned systems could operate from shore or from ships, to observe and kill things. "We don't have the now, but they are coming," he said.

Citing his recent command of Marine Forces Pacific, Berger said China "knows they have one team to match" and have "poured 100 percent of their resources into overcoming us." As a result, the U.S. military is losing its traditional technological advantage.

While joining the industry representatives and an array of House members in urging continued development of a larger and more capable amphibious fleet, Berger drew on his command's role in producing land combat equipment that can support the fight for sea control.

Noting that the National Defense Strategy advocates the Marines returning to their historic role of establishing and defending forward operating bases, he said they would "need long-range fires, from the ship, from the shore." In order to control land, they will need "platforms that can move from one to the other."

To do that, the amphibious force will need connectors, but not the current connectors of amphibious tractors, landing craft utilities and landing craft air cushions, but a new family of connectors being developed by Maj. Gen. David Coffman, director of Expeditionary Forces, who was in the audience.

Those will designed to go “ship to shore and shore to ship. If you’re going to move a distributed force, it’s going to be back and forth. It can’t be the old connectors,” Berger said.

Another thing they will need to operate in the littorals, he said, is anti-mine capability, an area where “we fell asleep… We have to have a mine clearance capability to move fast. If we are going to be moving around in the littorals, we need to fight mines.” That is another threat Coffman’s office is addressing.

Earlier in the forum, eight House members, most of whom serve on the House Armed Services Committee, supported the Navy-Marine Corps goal of expanding the amphibious force from the current 32 ships to 38, including building the new Amphibious Transport Dock (LPD) Flight II ships that will replace the aged Landing Ship Docks (LSD).

The industry representatives emphasized the need to move the planned procurement of the next “big-deck” amphibious assault ship, LHA-9, up from 2024 to 2021 to avoid a seven-year production gap that will harm the shipbuilding work force and substantially add costs.

The House members, including Rep. Joseph Courtney, chairman of the House Armed Services Committee Seapower and Projection Forces Subcommittee, urged the industry coalition to put pressure on lawmakers to support the defense budget, particularly shipbuilding funds.

Courtney noted that the federal budget will not be released until March 12, more than a month late, which “will intensify the need” for industry pressure. “Things will move really fast.”

Special Ops Leaders: SOFs Essential but Must Not Lose Irregular Warfare Skills

ARLINGTON, Va. – Because of their agility and relatively low cost, special operations forces (SOF) will continue to play a key role in meeting the global security threats, even with the new emphasis on preparing for the return of great power competition. But SOF and the conventional joint forces must not lose the irregular warfare skills honed in nearly two decades of conflict, two top Special Operations civilian leaders said Feb. 5.

Russia and China are engaging in activities below the level of armed conflict to challenge America's global influence, but "that is SOF's specialty," Owen West, the assistant defense secretary for Special Operations and Low-Intensity Conflict (SO/LIC) said.

Addressing the National Defense Industrial Association's annual SO/LIC conference, West said he did not think the Special Operations Forces would have to change to meet the new era of competition, but the entire defense departments will "have to establish an understanding of what irregular warfare is."

"Clearly we have adversaries that are playing by a different set of rules" that the United States would not adopt. "But at some point, we have to understand the rules by which they play," West said.

West repeatedly cited the flexibility and relative low cost of small SOF units and their global footprint, so wherever an adversary appears, SOF can respond. He said one of his jobs as head of SO/LIC is helping the Special Operations Command determine what its priorities are.

“We have to be cheaper, but we have to be flexible and shift forces to the new priorities,” he said.

Speaking earlier, Andrew Knaggs, the deputy assistant defense secretary for Special Operations and Combating Terrorism, said the “National Defense Strategy” created last year by then Defense Secretary Jim Mattis has become the “foundational document” that is shaping Defense Department policies and the way it sees itself, the world and the future.

The mandate from that strategy means “DoD will likely operate with a smaller footprint overseas,” meaning that “agility will be more important for success.” And because adversaries are employing irregular warfare tactics to undermine the foundations of U.S. global status, the department must preserve the lessons learned from two decades of irregular warfare and counter-terrorism operations. And it will need “to reorient that to the era of great power competition.”

Knaggs recalled the U.S. military’s history of shifting from the irregular warfare on the Western frontier to high end conflict in the two world wars, “which left us unprepared for irregular war far into Vietnam.” And then again in Afghanistan and Iraq, “we have favored conventional approaches over IR. When given an opportunity to right-size the force, we too often have gone to the conventional approach, which leaves us unprepared for the broad spectrum of threats we face today.”

The current adversaries “have shown the ability to use IR tools to reshape the environment” in which U.S. forces must operate. “We should do the same,” he said.

West made similar points, noting that under the “National Defense Strategy” irregular warfare had become a part of department policy in an effort to end the “boom and bust” practice of standing up and shutting down irregular warfare capabilities.

The policy now is to establish a standard so that a part of

the joint force will be ready for irregular warfare. “SOF has always been a part,” he said.

Responding to questions from an NDIA moderator, West said the charges of allegedly criminal actions against a number of SOF personnel is “not indicative of what the force is.”

But he said the alleged actions can erode the trust within the command and “if this trust is jeopardized in any way, it is felt well beyond our walls and will affect the whole force.”

All allegations of criminal behavior will be fully investigated and anyone found guilty will be punished, he said.

West said he did not think the decade-plus of intense operations was a cause for the alleged misbehavior, but if he knew what the cause was, “we’d have fixed it.”

While citing the value of SOF’s low cost “compared to some of the high-end weapons,” West said SOCOM and his office were disappointed that the Air Force stopped its quest to buy a cheap, turbo-prop light attack aircraft, which would have been geared to low-intensity conflict.

Sea Hunter MDUSV Reaches New Milestone for Autonomy

RESTON, Va. – The Office of Naval Research’s (ONR) Medium Displacement Unmanned Surface Vessel (MDUSV), Sea Hunter, became the first ship to successfully autonomously navigate from San Diego to Pearl Harbor, Hawaii, and back without a single crew member onboard, except very short-duration

boardings by personnel from an escort vessel to check electrical and propulsion systems, the ship's builder, Leidos, said in a Jan. 31 release.

Leidos designed and built the 132-foot-long Trimaran, Sea Hunter, an autonomous, unmanned vessel capable of traveling for long periods of time and executing a variety of missions at a fraction of the cost of a manned ship. This recent achievement is part of an extended test phase, which has been ongoing since the end of 2016.

"The Sea Hunter program is leading the world in unmanned, fully autonomous naval ship design and production," said Gerry Fasano, Leidos Defense Group president. "The recent long-range mission is the first of its kind and demonstrates to the U.S. Navy that autonomy technology is ready to move from the developmental and experimental stages to advanced mission testing."

Sea Hunter will continue long duration and mission package testing throughout 2019. ONR awarded Leidos a potential $43.5 million contract to develop Sea Hunter II, which is currently under construction in Mississippi. The sister ship will be evolved based upon lessons learned during the first Sea Hunter build, evolving mission requirements and further development of autonomy enhancements.

"Our talented team of engineers, scientists and analytical experts have decades of experience that will allow us to deliver a second highly autonomous vessel designed to keep our servicemen and women safe while monitoring the maritime environment," said Fasano. "We're excited to showcase our unique and innovative capabilities for a program of great national significance."

No Injuries as Two U.S. Navy Vessels Involved in Minor Mishap Off East Coast

NORFOLK, Va. – No personnel were injured when a U.S. Navy guided-missile cruiser and dry cargo ship made contact during an underway replenishment off the southeastern coast of the United States, Feb. 5, the U.S. Fleet Forces Command Public Affairs said in a release of the same date.

USS Leyte Gulf (CG 55) and USNS Robert E. Peary (T-AKE 5) were able to safely operate after the incident. Damage will be assessed when the ships pull into port.

The ships had been conducting a replenishment-at-sea when the sterns touched at approximately 4 p.m. EST. U.S. Fleet Forces Command and Military Sealift Command will thoroughly investigate this incident.

The ships were conducting operations in conjunction with the Abraham Lincoln Carrier Strike Group.

CNO Richardson: 'Looking at 25-50 years of a maritime-centric world'

WASHINGTON – The role of the U.S. Navy as a diplomatic and economic actor in U.S. foreign policy and execution is as strong as ever and likely to remain so for the next several decades, the Navy's top officer said.

“In general, we’re looking at 25 to 50 years – easy – of a maritime-centric world,” said Adm. John M. Richardson, chief of naval operations, speaking Feb. 6 to an audience at the Atlantic Council, a Washington think tank. “[There will be] lots of responsibilities for maritime forces coming in the next 50 years.

“Those responsibilities are not the only military dimension of national power, but the Navy has a tremendous history of enhancing the diplomatic element of national power,” Richardson said. “There have been major treaties and leader summits conducted on U.S. warships. Gunboat diplomacy—there is something to that still. When we visit foreign ports, it’s almost a given that the U.S. ambassadors to that country will host a reception on the ship because its sovereign U.S territory.”

The CNO noted the Navy’s rich role in U.S. diplomatic history, saying that there is “a role for that going forward.”

Regarding influence on economic power, Richardson said the Navy’s role “in preserving sea lines of communication – 90 percent of the world’s trade goes over the seas.”

Richardson said the maritime rules set developed over decades since World War II “provide that level playing field” that has benefited the nations, “perhaps most especially China, which has grown tremendously.

“We need to advocate for preserving that,” he said.

Richardson has advocated consistency in complying with and enforcing international rules regarding freedom of navigation in current areas of tension – the South China Sea and the Taiwan Straits – as necessary to preserve the freedom of maritime commerce in international waters.

CNO Richardson: Rail Gun Is a ‘Case Study’ in ‘How Innovation Maybe Shouldn’t Happen’

WASHINGTON – The Navy’s effort to field an electromagnetic rail gun has taken too long to develop but is yielding other technological advances, the Navy’s top officer said.

“I would say that rail gun is the case study that would say, ‘this is how innovation maybe shouldn’t happen,’” said Adm. John M. Richardson, chief of naval operations (CNO), speaking Feb. 6 to an audience at the Atlantic Council, a Washington think tank.

“[The rail gun project] has been around 15 years, maybe 20; ’rapid’ doesn’t come to mind in a time frame like that,” the CNO said, having just addressed the need for rapid prototyping and acquisition agility in order to maintain a technological edge in great power competition.

“Now we’ve learned a lot [from the project], and the engineering of building something like that that can handle that much electromagnetic energy and not just explode is challenging,” he said. “So, we’re going to continue after this – we’re going to install this thing, we’re going to continue to develop it, test it. It’s too great a weapon system so it’s going somewhere, hopefully.”

Richardson said that it was not uncommon in innovative approaches to yield unforeseen benefits.

The projectile conceived for the rail gun “is actually a pretty neat thing in and of itself,” he said. “The high-velocity projectile is also usable in just about every gun we have. It can be out in the fleet very, very quickly independent of the rail gun. So, this effort is breeding all sorts of advances. We just need to get the clock sped up with respect to the rail gun.”

L3 ASV Delivers Data-Gathering Autonomous Vessel to the Royal Navy

PORTCHESTER, England — L3 ASV has successfully delivered a long-endurance autonomous vessel known as the C-Enduro to the Royal Navy, the company said in a Feb. 5 release. The C-Enduro will be used for military data gathering trials by the Mine Countermeasures and Hydrographic Capability (MHC) program as the Navy seeks to exploit autonomous technology.

“We are proud to support the Royal Navy in their plans to explore the uses of marine autonomy as they continue to invest in new and exciting technology,” said Vince Dobbin, sales and marketing director for L3 ASV. “This vessel is an evolution of our existing C-Enduro product range and provides the unique capability to collect a variety of data during any one mission over extended periods.”

The 4.8-meter autonomous vessel is equipped with 10 sensors combining scientific and hydrographic survey equipment. The vessel operates using L3 ASV’s proprietary control system, ASView, and is fitted with L3 ASV’s advanced autonomy package, ensuring situational awareness and smart path planning. ASView

enables a range of autonomous control modes, including line following, station-keeping and geofencing.

“The different ways in which the C-Enduro can be operated will allow the Navy to test and develop the ability of an autonomous unmanned surface vessel to effectively gather important hydrographic data and potentially form part of a future capability to be delivered by the MHC program,” said Alex du Pre, MHC Team Lead at Defence Equipment and Support.

This project marks the fourth delivery of a C-Enduro vessel, and previous successful missions include an 11-day over-the-horizon marine science mission north of Scotland for the National Oceanography Centre.

Coast Guard Interdicts 25 Migrants Off Mona Island, Puerto Rico

SAN JUAN, Puerto Rico – The crew of the Coast Guard Cutter Joseph Napier (WPC-1115) repatriated 22 of 25 Dominican migrants to a Dominican Republic Navy vessel Feb. 4, following the interdiction of a makeshift boat Feb. 2, approximately 20 nautical miles northwest of Mona Island, Puerto Rico, the Coast Guard 7th District said in a February release.

Three of the interdicted migrants are facing possible federal prosecution by the U.S. Attorney’s Office for the District of Puerto Rico for illegally attempting to re-enter the United States.

The Coast Guard and federal and Commonwealth of Puerto Rico

law enforcement partners have interdicted more than 400 migrants and stopped several narcotics smuggling attempts since October of 2018.

“The migrants were attempting to make the transit across an ocean passage in a vessel that was inherently unsafe due to overloading, missing all required safety equipment, and operating without navigation lights,” said Lt. John Schulz, cutter Joseph Napier commanding officer. “Many lives are lost each year by these types of ventures and are a direct threat to the people who attempt the voyage. Each person saved is a testament to how critical the Coast Guard and our partner agencies efforts are to ensuring that there is not a unnecessary loss of life in the waters surrounding Puerto Rico.”

The crew of a Coast Guard HC-144 Ocean Sentry aircraft from Air Station Miami, while on a routine patrol of the Mona Passage, detected a 35-foot makeshift boat Friday night with an undetermined number of passengers aboard transiting towards Puerto Rico.

The Coast Guard Cutter Joseph Napier was diverted and interdicted the migrant vessel Saturday morning embarking all 25 Dominican migrants, 24 men and a woman.

Following at-sea interdictions, illegal migrants that are stopped are repatriated to their country of origin or returned to their place of departure. In some cases, those migrants found to have a criminal history with possible connection to smuggling operations are turned over to law enforcement authorities for further prosecution by the Department of Justice. Once aboard a Coast Guard cutter, all migrants receive food, water, shelter and basic medical attention.

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

Navy Successfully Conducts SPY-6 AMDR Ballistic Missile Test

KAUAI, Hawaii – The U.S. Navy's AN/SPY-6(V)1 Air and Missile Defense Radar (AMDR) successfully tracked a ballistic missile target, Jan. 31, the Naval Sea Systems Command said in a Feb. 5 release.

The short-range ballistic missile target was launched from the Pacific Missile Range Facility. An AN/SPY-6(V)1 AMDR searched for, detected and maintained track on the target as predicted. The flight test, designated Vigilant Nemesis, is the final developmental test in a series of ballistic missile defense flight tests for the AN/SPY-6(V)1 AMDR.

"The radar performed exactly as predicted. This completes our rigorous developmental test program to support the on-time delivery of the Navy's newest Flight III destroyer," said Capt. Seiko Okano, major program manager for Above Water Sensors, Program Executive Office-Integrated Warfare Systems (PEO IWS).

Based on preliminary data, the test successfully met its primary objectives. Program officials will continue to evaluate system performance based upon telemetry and other data obtained during the test.

Integrated air and missile defense testing commenced in March of 2017 with the successful completion of the first live ballistic missile flight test mission for the AN/SPY-6(V)1 radar named Vigilant Hunter. Vigilant Nemesis was the capstone ballistic missile test for the AN/SPY-6(V)1 AMDR and the 15th

live ballistic missile test for the radar’s development phase.