



NPS IN THE NEWS

Weekly Media Report –Oct. 27-Nov. 2, 2020

Further reproduction or distribution is subject to original copyright restrictions.

CIMSEC FLEET FORCE STRUCTURE SERIES:

1. [Force Structure Perspectives: Capt. Jeff Kline \(ret.\) on Bringing the Fleet into the Robotics Age](#)

(The Maritime Executive 28 Oct 20)

(CIMSEC 27 Oct 20) ... Dmitry Filipoff

As a part of CIMSEC's Force Structure Perspectives Series, CIMSEC discussed the Battle Force 2045 fleet design with Capt. Jeff Kline (ret.) who serves as Professor of Practice of Military Operations Research in the Naval Postgraduate School's Operations Research department, and serves as Director of the Naval Warfare Studies Institute. In this conversation, Capt. Kline discusses advantages realized by fielding a fleet with greater platform variety, how to mitigate risk to emerging fleet networks, and the impacts of the Robotics Age on naval force structure.

2. [Force Structure Perspectives: Cmdr. Phil Pournelle \(ret.\) on Chasing Legacy Platforms](#)

(CIMSEC 27 Oct 20) ... Dmitry Filipoff

As a part of CIMSEC's Force Structure Perspectives Series, CIMSEC discussed the Battle Force 2045 fleet design with CDR Phil Pournelle (ret.), who served as a surface warfare officer and in the Office of Secretary of Defense Cost Assessment and Program Evaluation and at the Office of Net Assessment. In this conversation, CDR Pournelle discusses getting away from exquisite legacy platforms, getting fresh perspectives in force structure assessment, and adapting the Navy to the National Defense Strategy.

3. [A Decisive Flotilla: Assessing the Hudson Fleet Design](#)

(CIMSEC 29 Oct 20) ... Robert C. Rebel

Soon the Secretary of Defense (SECDEF) will issue the Future Naval Force Study (FNFS), which he commissioned after rejecting the Navy's draft Force Structure Assessment (FSA). In his view, the FSA contained invalid assumptions and hewed too closely to traditional fleet design. He then commissioned two groups to redesign the fleet: the Hudson Institute and the Department of Defense Cost Assessment and Program Evaluation (CAPE) office. Both efforts produced designs that envisioned a fleet that consisted of fewer aircraft carriers but greater numbers of smaller combatants and unmanned vessels.

From one perspective the results of the Hudson and CAPE studies are encouraging. Some in the community of naval strategy and policy have been advocating for such a redesign since the late 1990s. Notably, the **late Professor Wayne Hughes, long-time chairman of the Operations Research Department at the Naval Postgraduate School**, advocated for what he called a "bi-modal" Navy consisting of a mix of ships similar to what both Hudson and CAPE came up with.

4. [Force Structure Perspectives: Capt. Robert Rubel \(ret.\) on OSD Seizing Fleet Design](#)

(CIMSEC 29 Oct 20) ... Dmitry Filipoff

As a part of CIMSEC's Force Structure Perspectives Series, CIMSEC discussed the Battle Force 2045 fleet design with Capt. Robert Rubel (ret.), who served as the chair of the Naval War College's wargaming department



and dean of the College's Center for Naval Warfare Studies. In this conversation, Capt. Rubel discusses the Navy's longstanding aversion to distributed force structure elements, why the Office of the Secretary of Defense may have seized the process of fleet design, and how to move the fleet toward more effective strategic and tactical dispersion.

RESEARCH:

[5. Ocean Power Technologies Contracts with ACET for US Navy SLAMR Initiative](#)

(GlobeNewswire 27 Oct 20)

Ocean Power Technologies, Inc. ("OPT" or "the Company") (NASDAQ: OPTT), a leader in innovative and cost-effective ocean energy solutions, today announced it has been contracted by Reston, Virginia-based Adams Communications & Engineering Technology (ACET) to conduct a feasibility study. The evaluation of a PB3 PowerBuoy® power and 5G communications solution comes in support of the U.S. Navy's **Naval Postgraduate School's (NPS) Sea, Land, Air, Military Research (SLAMR) Initiative**, which conducts interdisciplinary research in unmanned and robotic systems.

[6. NPS Supports FVEY Efforts to Streamline Space Technologies](#)

(7thSpace.com 2 Nov 20)

(NPS.edu 27 Oct 20) ... Rebecca Hoag

The creation of Space Force has inspired a renewed interest in space systems research and innovation. In August, the Naval Postgraduate School (NPS) received funding from the DOD to lead a project to streamline space technology among Five Eye (FVEY) countries. The project, headed by NPS professors Giovanni Minelli and Wenschel Lan, involves sending up two CubeSats containing experimental technology created by NPS students and New Zealand researchers. The payloads must be ready to launch into orbit by 2022. Once in space, the payloads will communicate with NPS researchers in the new Radio Frequency (RF) Testing Lab that overlooks the Monterey Bay.

FACULTY:

[7. China to Release First Pakistani Film in Almost 40 Years Amid Tensions with India](#)

(The Print 27 Oct 20) ... Kairvy Grewal

For the first time in close to 40 years, a Pakistani film is set to release in Chinese cinemas in November. This move comes just ahead of the celebrations of the 70th anniversary of China and Pakistan's diplomatic relations, established in May 1951. It also comes at a time when China's relationship with India is at a low, due to border tensions.

Covell Meyskens, a historian of China in the National Security Affairs Department at the Naval Postgraduate School in California, emphasised importance of this fighter jets appearance in the film, saying, "There's a few fetishised military objects, and one of them is definitely the fighter plane." This technology is "one of the areas China wants to compete in; they've been partnering with Pakistan on this stuff for a long time," he added.

[8. Blue Homeland Doctrine has Broad Consensus in Turkey](#)

(Ahval News 29 Oct 20) ... Nicholas Morgan

Amidst ongoing tensions between Turkey and its neighbours in the eastern Mediterranean Sea, a once obscure strategic doctrine has become a means of explaining this conflict.

Blue Homeland, or Mavi Vatan in Turkish, promotes the idea that Turkey needs to assert itself forcefully in the waters beyond Anatolia where it has a strategic interest. On the surface, this appears to reflect accurately the disputes today with Greece and Cyprus over offshore mineral resources in the region.

Dr. Ryan Gingeras, an associate professor at the Naval Postgraduate School in Monterey, California, said the concept is relatively new in Turkish strategic thinking and reflects an ideological position held by several high-ranking officers in the military for years.

[9. Will Russia Influence the American Vote?](#)

(The Conversation 29 Oct 20)

(Fairfield Citizen 29 Oct 20)

(The Telegraph 29 Oct 20) ... **Scott Jasper, Lecturer in National Security Affairs, Naval Postgraduate School**



The idea that someone recently tried to influence Americans to vote for a particular candidate by sending them threatening emails may sound outlandish – as might federal officials’ allegation that the Iranian government is behind those messages.

But U.S. voters should prepare for even more strange and unexpected examples of information warfare that manipulate, distort or destroy election-related information between now and Election Day – and perhaps beyond that, depending on whether there are questions about who may have won the presidency.

ALUMNI:

10. [AFRL Researchers Recognized as Early Career Leaders](#)

(Robins AFB 27 Oct 20) ... Jeanne Daily

Air Force Research Laboratory commander, Brig. Gen. Heather L. Pringle, recently announced the 2020 AFRL Fellows and the newest class of AFRL Science and Engineering Early Career Award (S&E ECA) recipients. She welcomed 11 researchers as AFRL Fellows and nine scientists and engineers for Early Career Awards. Two of the S&E ECA honorees work in AFRL units located on Kirtland Air Force Base, N.M.

The AFRL Space Vehicles Directorate nominated **Dr. Richard ‘Zap’ Zappulla II, a Naval Postgraduate School alumnus**, for the Early Career Award. Zappulla has been working with AFRL since 2013. As a research aerospace engineer, he has contributed to guidance, navigation and control (GNC) technologies in the areas of space domain awareness and satellite control on three recent directorate flight experiments.

11. [NSWCDD Dam Neck Activity Change of Command Highlights Teamwork and ‘War Winning Capability’ for the Fleet](#)

(Naval Sea Systems Command 29 Oct 20)

Cmdr. Michael Aiena, a Naval Postgraduate School alumnus, relieved Cmdr. Joe Oravec as commanding officer of Naval Surface Warfare Center Dahlgren Division (NSWCDD) Dam Neck Activity in a change of command ceremony held at Dam Neck Activity’s Hopper Hall auditorium, Oct. 16.

UPCOMING NEWS & EVENTS:

November 3: Election Day

November 11: Veteran’s Day

November 17: [V-SGL with Ambassador Harry Harris](#)

November 26: Thanksgiving



The Naval Postgraduate School proudly presents

THE SECRETARY OF THE NAVY GUEST LECTURE SERIES

In Collaboration With The Naval Education Enterprise

Ambassador Harry Harris

“Critical Allies: The U.S. / Republic of Korea Alliance”



17 NOVEMBER 1500 (PST)

U.S. Ambassador to the Republic of Korea **Harry Harris** is the first Asian-American to hold four-star rank in the U.S. Navy and the first to head U.S. Pacific Command (USPACOM), now known as the Indo-Pacific Command (INDOPACOM), from May, 2015 to May, 2018. He was nominated by President Trump on May 23, 2018 and confirmed by the United States Senate on June 28, 2018. Prior to USPACOM, he commanded the U.S. Pacific Fleet. From 2011 to 2013, Ambassador Harris served as the representative of the Chairman of the Joint Chiefs of Staff to the Secretary of State. In this role, he traveled to over 80 countries with the Secretary and participated in most of the Secretary's meetings with foreign leaders.

Born in Japan and reared in Tennessee and Florida, Ambassador Harris graduated from the U.S. Naval Academy in 1978. He holds master's degrees from Harvard's Kennedy School of Government and Georgetown's School of Foreign Service. His father served in the U.S. Navy, and was a veteran of both World War II and the Korean War. Ambassador Harris is married to Ms. Bruni Bradley, herself a career Naval officer.

V-SGL series page
www.nps.edu/sgls

Viewing link
www.nps.edu/web/video



CIMSEC FLEET FORCE STRUCTURE SERIES:

Force Structure Perspectives: Capt. Jeff Kline (ret.) on Bringing the Fleet into the Robotics Age

(The Maritime Executive 28 Oct 20)

(CIMSEC 27 Oct 20) ... Dmitry Filipoff

As a part of CIMSEC's Force Structure Perspectives Series, CIMSEC discussed the Battle Force 2045 fleet design with Capt. Jeff Kline (ret.) who serves as Professor of Practice of Military Operations Research in the Naval Postgraduate School's Operations Research department, and serves as Director of the Naval Warfare Studies Institute. In this conversation, Capt. Kline discusses advantages realized by fielding a fleet with greater platform variety, how to mitigate risk to emerging fleet networks, and the impacts of the Robotics Age on naval force structure.

The Secretary of Defense recently announced a new fleet plan for a future U.S. Navy of 500 ships, a major increase over today's fleet of around 300 ships. Among many changes, the fleet emphasizes substantial additions in areas such as sealift, unmanned warships, submarines, and smaller surface combatants. What do you make of the size of this fleet and its mix of platforms?

I applaud these changes! This vision begins to embrace the offensive advantages of the new Robotics Age of warfare, while retaining more traditional forces to provide defense for sea lines of communications. It is a fleet designed with greater sea denial capabilities yet still retaining the ability to maintain sea control. It is a fleet with more resilience in both operations and logistics, and a fleet better able to operate across the spectrum of competition to conflict. It is very much in line with my CIMSEC commentary of several years ago, the "Impacts of Robots Age on Naval Force Structure Planning."

This is not necessarily a "high-low" mix fleet design, but rather a lethal, focused-mission sea denial force intended for forward operations while also being a sea control force of multi-mission platforms to protect our ability to use the oceans for sustainment and logistics. It is a fleet design better suited for conflict, and therefore, may better deter conflict.

This new force structure may be used to execute Navy and Marine Corps warfighting concepts, including Distributed Maritime Operations (DMO), and Expeditionary Advanced Base Operations (EABO). These concepts and the new fleet design embody leadership's thinking on the nature of future warfighting tactics and operations. Are these warfighting concepts mature or flexible enough to provide a long-term foundation for building this redesigned fleet? Are trends in tactics and technology adequately captured?

I believe this new fleet design moves toward an architecture more capable of effectively executing both DMO and EABO, while providing the connections for their synchronous employment. Foundationally, if DMO's objective is to present an adversary with multiple points of risk, it is easier to do that with 500 platforms than 300. Likewise, if EABO is to place distributed offensive capability forward, then greater logistical capacity will be required to support it. Integrating these concepts will also be enabled by envisioning coordinated operations between the Navy's forward offensive sea denial platforms—the submarines, unmanned systems, and smaller surface combatants—and the Marine's shore-based ISR and anti-ship missile capabilities.

Having a better mix of single and multi-mission ships may also catalyze an increase in integrated operations with allies—a necessary condition for both DMO and EABO. Barriers to capability sharing in our advanced defensive systems are not necessarily the same with smaller combatants and unmanned platforms dedicated to regional ISR and offensive operations. And, for basic maritime security missions, smaller combatants are well-suited to work alongside allied partners. Adding a larger proportion of these vessel types to the fleet will provide additional options for engaging regional partners.

As the new fleet design is incrementally introduced, and the advantages and limitations of new technologies are better understood, tactics can be modified along with concepts to effectively employ them. The greatest risk, of course, is to the networks and communications that tie this fleet together. In a way, this transforms the Navy's "capital ship" from the aircraft carrier to the fleet network, a natural outcome of distributed operations enabled by the Robotics Age.



Two approaches to mitigate risk to the fleet network must be developed independently: adding robustness to our communication capabilities and maturing tactical mission command to a level that our force is network enabled and not network dependent. Essentially, developing concepts and tactics to allow our force to operate without fleet C2 if necessary. This may be a combination of older concepts by creating geographic operating areas and/or “kill boxes” where local tactical commanders have full control over a detect-to-engage sequence, and new communication techniques like burst mesh networking with robotic nodes. This will not work, however, unless local commanders have local control of ISR, engagement, and battle damage assessment assets in their assigned area. These ideas are covered in more detail in my 2016 CIMSEC article “A Tactical Doctrine for Distributed Lethality” and SECDEF’s fleet design moves toward providing the quantities of unmanned systems to make this happen.

The Navy has long been concerned about whether it can sustainably increase the size of the fleet within traditional levels of shipbuilding funding. How can we view the affordability and sustainability of this fleet?

Sustainability is the greatest risk to this new fleet plan. Increasing the manpower, maintenance, and logistics requirements to support a more numerous fleet will require a tradeoff of some operational capacity toward sustainability. But even here there are ways to mitigate a traditional sustainment requirement. Exploring concepts involving less expensive, attritable unmanned sensor platforms, shorter platform lives where replacement vice retrofit is the goal, and low maintenance systems are more possible with a greater number of single-mission platforms than expensive multi-mission ones.

A possible manning tradeoff consideration is using lightly crewed or optionally-crewed systems to replace just one aircraft carrier and air wing at the battle’s edge. This may free personnel to fill control, maintenance, and sustainment roles. This is a conceptual leap deserving further analyses, but it reflects possibilities facilitated by leveraging intelligent automated systems and introducing entire platforms which use them. And, this fleet design conservatively retains a large portion of our aircraft carrier fleet to hedge against technological risk.

This process was notable for including the direct involvement and direction of the Office of the Secretary of Defense, which initially rejected the Navy and Marine Corps force structure assessment delivered in January. What is unique about how this process played out and what can we learn for making future assessments?

Historically, large capital-intensive navies are by nature difficult to change. Non Navy-specific, large-segmented bureaucracies, particularly those following established processes like the PPBE and acquisition systems, inspire marginal change at best. There is some goodness to this, as great change in a fleet can incur significant geopolitical and strategic risk, but in our current world-power situation, change is needed in our force structures to meet emerging technological threats. I believe this is well-recognized throughout Navy leadership.

The Secretary of Defense used his offices to overcome some of these barriers. What will be critical now is the next step: execution. I believe Congress, OSD, and Navy leadership will have to be directly involved to ensure this fleet design is realized. We don’t lack for fleet assessments recommending change, we lack for the actual change.

What does it mean for U.S. naval strategy and great power competitiveness to build this fleet, and to build it soon? Does it address a gap between national strategy and the navy needed to execute it?

I believe it sends a strong signal to our potential adversaries that we are building a fleet less vulnerable and more resilient in a possible future conflict across multiple domains. It means we are willing to take some technological risk to stay competitive in the Robotics Age of warfare, and be capable of holding their strategic interests at risk. This may have a strong deterrent effect on aggressive adventurism by providing additional response options with varying levels and types of force.

Previous force structure assessments conducted in 2016 were later considered by some to be overly optimistic with respect to certain factors, such as available resourcing. How can we be confident in this new assessment, and that it will spur the change it recommends? What comes next to build this fleet?



I don't believe the assessment itself will motivate the necessary choices to realize this fleet design vision. SECDEF, SECNAV, and the CNO must create the organizational changes to institutionalize the transformation. That may require some radical shifting of resources, responsibilities, and authorities, and of course, Congressional support. The next step is really a campaign to address a full strategy—ends, ways and means. The new fleet design provides an endstate and it provides some force structure offsets to identify means. Now, what is required is a transformation execution plan which clearly articulates ways by identifying authorities and resources.

I am optimistic this change is achievable. The recently released House Armed Services Committee *Future of Defense Task Force Report 2020* recognizes the advantages emerging technologies like artificial intelligence, quantum computing, and biotechnology can provide us, as well as the threat they pose in an adversary's arsenal. It calls for changes to the DoD programming and acquisition processes as well as partnerships with industry to meet the vision of a transformed force. It is very much in the spirit of SECDEF's naval force design. For Navy leadership pursuing this vision, I believe they will find an ally in Congress.

Also, great changes in fleet capabilities are normally associated with a strong visionary and leader who had the longevity to realize the introduction. A flag officer should be appointed with the authority and tenure in office to transform the fleet to embrace new information, manufacturing, cyber, and computational technologies. Naval gunnery was advanced by Dahlgren, the nuclear navy realized by Rickover, submerged ballistic missiles brought on by Burke, Navy computation reared by Hopper, and Aegis was shepherded by Meyer.

Recently, the Chief of Naval Operations launched Project Overmatch, where "Beyond recapitalizing our undersea nuclear deterrent, there is no higher developmental priority in the U.S. Navy," and whose goal "is to enable a Navy that swarms the sea, delivering synchronized lethal and non-lethal effects from near-and-far, every axis, and every domain." Can Admirals Small and Kilby, who are charged with leading this project, be those who bring the U.S. Navy into the Robotics Age?

<http://cimsec.org/force-structure-perspectives-capt-jeff-kline-ret-on-bringing-the-fleet-into-the-robotics-age/46219>

[Return to Index](#)

Force Structure Perspectives: CDR Phil Pournelle (ret.) on Chasing Legacy Platforms

(CIMSEC 27 Oct 20) ... Dmitry Filipoff

As a part of CIMSEC's Force Structure Perspectives Series, CIMSEC discussed the Battle Force 2045 fleet design with CDR Phil Pournelle (ret.), who served as a surface warfare officer and in the Office of Secretary of Defense Cost Assessment and Program Evaluation and at the Office of Net Assessment. In this conversation, CDR Pournelle discusses getting away from exquisite legacy platforms, getting fresh perspectives in force structure assessment, and adapting the Navy to the National Defense Strategy.

The Secretary of Defense recently announced a new fleet plan for a future U.S. Navy of 500 ships, a major increase over today's fleet of around 300 ships. Among many changes, the fleet emphasizes substantial additions in areas such as sealift, unmanned warships, submarines, and smaller surface combatants. What do you make of the size of this fleet and its mix of platforms?

There are two challenges to answering this question: we don't know what the actual plan is, and we don't know what the fleet is intended to do. The 30-year shipbuilding plan is overdue to Congress and apparently has been overridden by the Secretary of Defense and others outside the Department of the Navy. Based on the Secretary's recent public comments it would appear the best guess in the public realm is a report by the Hudson Institute which lays out their own long-term plan and description of how the fleet is intended to operate.

The Hudson report does describe in detail the number and type of platforms to be in the fleet by 2045 based on a modest increase of the Navy's budget over inflation. This new fleet incorporates a number of



new hulls: an optionally manned missile corvette (DDC), an unmanned support vessel (MUSV), an unmanned subsurface vessel (XLUUV), a small amphibious vessel (LAW), and a small Combat Logistic Force Vessel (T-AOL). Unfortunately, the Hudson report provides a very cursory description of these platforms, leaving out details which would be required to provide a proper answer to the question. Therefore any assessment of these vessels must draw upon descriptions of these vessels from other sources and an educated guess regarding the DDC.

Based on all of these assumptions, one would assess that if the Secretary is moving in the direction of the architecture and operational constructs of the Hudson report, then this is a step in the right direction, but there is still plenty of work to be done.

The most important contribution of the Hudson report is the substitution of the ill-conceived Large Unmanned Surface Vessel (LUSV) with the optionally manned (but should be permanently manned) missile corvette (DDC) to provide numbers of potential strike platforms and act as relay missile magazines for the forward forces. When paired with Maritime Sealift Command (MSC) logistics platforms to reload Vertical Launch System (VLS) cells on the DDC close to the scene of action, such platforms will offer a weekly volume of fire which greatly exceeds that of a carrier air wing (CVW) on a per unit cost basis. The DDC and T-AOL combination are nearly the epitome of the concepts of Distributed Lethality and distributed logistics crucial to the survival of a fleet in the modern maritime precision strike regime.

What appears to be lacking is a low cost, low signature, risk-worthy missile boat which can operate in the littoral regions and frustrate our competitor's reconnaissance strike complex (RUK) and the means to deploy and sustain these platforms. Existing candidates for this mission include the Juliet Marine Ghost Missile Boat (PHM), the *Ambassador* class fast missile craft (PTM), the M80 Stiletto, and **the Naval Postgraduate School Minute Man** (PFM). Existing candidates for the role of transport and mothership include the Auxiliary Crane Ship (ACS), the Lighterage Aboard Ship (LASH), the *Montford* *Point* class Expeditionary Transfer Dock ship (ESD), and crane operating Offshore Supply Vessels.

This new force structure may be used to execute Navy and Marine Corps warfighting concepts, including Distributed Maritime Operations (DMO), and Expeditionary Advanced Base Operations (EABO). These concepts and the new fleet design embody leadership's thinking on the nature of future warfighting tactics and operations. Are these warfighting concepts mature or flexible enough to provide a long-term foundation for building this redesigned fleet? Are trends in tactics and technology adequately captured?

The Hudson fleet construct is very dependent on the mosaic theory of warfare, a "decision-centric" concept employing Artificial Intelligence (AI), which is an outgrowth of maneuver warfare. While the authors are correct in stating the United States and her allies would be ill-advised to conduct attrition warfare against a large continental power close to their shores, mosaic warfare is still in its infancy and much work needs to be done.

EABO is still in development and the Marine Corps is putting considerable effort into its development, particularly through wargaming. However, many of their challenges arise due to their efforts to perform missions which the Navy should be doing and is not. The Navy seems unable to take on the missions and deploy the proper platforms for littoral warfare which Captain Wayne Hughes identified more than 20 years ago. The Hudson report does a great service in proposing a fleet capable of executing Distributed Lethality instead of shoehorning legacy platforms into the general idea and calling it DMO. Adding numbers to our fleet is crucial as the sensors, reach, and lethality of smaller and smaller platforms both ashore and at sea continue to increase.

The Navy has long been concerned about whether it can sustainably increase the size of the fleet within traditional levels of shipbuilding funding. How can we view the affordability and sustainability of this fleet?

The Navy cannot increase the size of the fleet and meet the needs outlined in the National Defense Strategy (NDS) if it continues to build the same exquisite and expensive legacy platforms. I continue to hear from colleagues who are still on active duty about the challenges of maintaining the fleet we currently have. Meanwhile, the traditional way of building the fleet appears to be piecemeal, with



decisions based on the requirements of each individual ship, particularly survivability, and not on the fleet as a whole. This results in a deadly and costly spiral where ships increase in size and cost resulting in a smaller overall fleet, where each ship becomes more precious. Such precious ships must then be defended more vigorously, adding more systems, increasing size and costs...

Wargaming and analysis must continue looking at the fleet and the threat from a holistic perspective. The acquisition of the fleet must then be viewed from an annualized cost (amortizing the acquisition costs over the expected service life, adding the annual operations and maintenance costs, plus manpower costs) compared to the lethality, resilience, and sustainability of the total force in the face of a capable opposition.

This process was notable for including the direct involvement and direction of the Office of the Secretary of Defense, which initially rejected the Navy and Marine Corps force structure assessment delivered in January. What is unique about how this process played out and what can we learn for making future assessments?

This is unique in the fact that the Secretary of Defense did not defer to the Navy staff. The writing was on the wall several years ago when Congress demanded multiple perspectives on future fleet architectures, suggesting dissatisfaction with continuing to build the same fleet regardless of trends shaping the future combat environment. Further, I don't think the Navy really addressed the National Defense Strategy's four-layer construct of contact, blunt, surge, and homeland defense when they submitted their planned architecture. They appeared to have shoehorned in the same force design and not make the fundamental changes called for.

Future fleet architecture development should take advantage of modern wargaming, modeling, and analysis techniques to assess multiple force structures and approaches in the future. The nation would benefit from a continued competition of these ideas against potential competitors' actions to determine how effective such forces will be in the range of future security environments.

What does it mean for U.S. naval strategy and great power competitiveness to build this fleet, and to build it soon? Does it address a gap between national strategy and the navy needed to execute it?

Again, we don't know exactly what the Secretary is proposing, and the Hudson report leaves much to be desired, but the concepts as described are certainly a step in the right direction. Our competitors have watched how the U.S. way of warfare remained relatively static for over 40 years and have developed ways to counter it. The key to an effective fleet is reversing a trend toward a small number of exquisite and expensive ships, and the Hudson architecture moves in that direction. The Hudson architecture appears to match platforms and formations to the NDS layers and increases the number of deployed forces capable of conventional deterrence needed in the contact and blunt layers. There is still a need for littoral combat missile boats which are effectively invisible to our competitors RUK in the contact and blunt layers and thus good additions to the overall force structure.

Previous force structure assessments conducted in 2016 were later considered by some to be overly optimistic with respect to certain factors, such as available resourcing. How can we be confident in this new assessment, and that it will spur the change it recommends? What comes next to build this fleet?

Until we actually see the Secretary's final assessment, a description of the assumptions which went into it, and the analytic rigor it was subjected to, we can't be confident in it. There are outstanding questions in the Hudson report I described earlier. Analysis from think tanks like Hudson can have their own elements of excessive optimism. However, just the fact there were competing force structures put forward and each subjected to a competitive analytic process should provide a greater level of confidence.

The changes recommended in the assessment will require experiential learning for the key decisionmakers in the form of wargaming. Recent games have provided participants a visceral understanding of the impact of decisions to continue to build our forces in the same manner. It is not enough to just read the reports. Key lawmakers and other leaders need to participate in these wargames. They will then quickly understand the need to move away from the few exquisite and expensive legacy ships of today and toward a new force structure able to compete and win in the modern precision



maritime warfare environment. Then there will be an impetus to address the shipbuilding industry and force architecture – that is, once we see what the Secretary is actually proposing. . .

<http://cimsec.org/force-structure-perspectives-cdr-phil-pournelle-ret-on-chasing-legacy-platforms/46260>

[Return to Index](#)

A Decisive Flotilla: Assessing the Hudson Fleet Design

(CIMSEC 29 Oct 20) ... Robert C. Rebel

Soon the Secretary of Defense (SECDEF) will issue the Future Naval Force Study (FNFS), which he commissioned after rejecting the Navy’s draft Force Structure Assessment (FSA). In his view, the FSA contained invalid assumptions and hewed too closely to traditional fleet design. He then commissioned two groups to redesign the fleet: the Hudson Institute and the Department of Defense Cost Assessment and Program Evaluation (CAPE) office. Both efforts produced designs that envisioned a fleet that consisted of fewer aircraft carriers but greater numbers of smaller combatants and unmanned vessels.

How may the Hudson fleet in particular perform in applying U.S. naval strategy and American grand strategy, and what changes may be needed to employ this new fleet?

Origins of a Distributed Fleet Design

From one perspective the results of the Hudson and CAPE studies are encouraging. Some in the community of naval strategy and policy have been advocating for such a redesign since the late 1990s. Notably, the late Professor Wayne Hughes, long-time chairman of the Operations Research Department at the Naval Postgraduate School, advocated for what he called a “bi-modal” Navy consisting of a mix of ships similar to what both Hudson and CAPE came up with. The notion of a mixed fleet was at least euphemistically embedded in the 2007 national maritime strategy “A Cooperative Strategy for 21st Century Seapower” (CS21). It called for “credible combat power” to be concentrated in the Middle East and the Western Pacific with “globally distributed, mission tailored” forces being dispatched to other areas to carry out an array of peacetime missions including maritime security, disaster relief, and humanitarian assistance. This concept was the result of an input to the strategy development process by Prof. Hughes. It seemed congruent with the document’s sweeping assertion that the sea services would deploy globally to “...protect and sustain the peaceful global system comprised of interdependent networks of trade, finance, information, law, people and governance.” Such a comprehensive approach to defending a favorable world order clearly called for a large and strategically dispersed Navy.

But in 2007 the Navy was already feeling the pinch of too much mission and too few ships, with no real prospect for increasing fleet size, at least with the all-big-ship fleet design then in place. Thus Hughes and others, including this author, advocated for a mixed design that featured a large number of smaller ships so that a strategy of robust forward presence did not compromise maintenance schedules and personnel tempo as well as other aspects of the Navy’s infrastructure, in addition to increasing fleet lethality.

However, this concept was opposed by a number of senior naval officers, as well as the resource bureaucracy within the Navy. Fleet size thus continued to decrease as the Budget Control Act (BCA) strangled military spending, the cost of ship construction increased faster than inflation, and units originating from the 1980s “600-ship Navy” reached the end of their service lives.

Some specific factors underpinning fleet design need to be considered. There are essentially two reasons for having more numerous, smaller ships to compose at least part of the fleet vice a relatively smaller number of larger ships, with one being strategic, the other operational/tactical, and both having to do with dispersal. At the strategic level, as was implied by CS21, a comprehensive defense of the global system requires the Navy to be in many different places, some continuously, for plenty of reasons. In most forward presence cases, high-end warfighting capability is not required, so “constabulary” units could be smaller, cheaper, less capable but thus more numerous for the same price as larger, traditional



combatants. Having a large fleet of these would relieve mission pressure on those large warfighting ships. The objection to such ships is precisely that they have less combat capability, so in effect such a fleet design could be seen as reducing the overall warfighting power of the Navy.

At the operational/tactical level, dispersion is mostly about warfighting. In previous eras, bigger was stronger. The capital ship, be it a four-decker under sail, a dreadnought with major caliber guns, or a nuclear aircraft carrier, each was able through its superior offensive power to defeat any other class of ship. Of course, there were always caveats to this presumption of dominance, from fire ships to mines, to submarines and Kamikazes. But the capital ship has persisted through it all, with the current instantiation being the *Ford*-class nuclear aircraft carrier.

Capital ships represent both concentration of capability and concentration of investment, which is why there are always relatively few of them. The inverse of the capital ship is the flotilla: a large number of small craft whose *modus operandi* is to swarm, perhaps like a pack of wolves harassing and eventually bringing down a bull bison. The idea of many platforms and payloads attacking from different directions complicates the defense of the capital ship. Critically, the weapons possessed by units of the flotilla must have sufficient range and lethality to offset and overwhelm the defensive capability of the capital ship and its escorts.

Enter the anti-ship missile (ASM). Current versions can travel hundreds of miles, have various characteristics that makes them difficult to shoot down, and have demonstrated lethality. The ASM broke the historical linkage between weapon power and ship size needed to carry it. Now several ASMs can be carried by craft displacing less than 500 tons.

Wayne Hughes, who was renowned for developing missile salvo combat models, provides the mathematical basis for the advantages of a dispersed flotilla of missile craft in his book *Fleet Tactics and Naval Operations*. A wargame held at the Naval War College in 2013 convinced the then-commander of the Navy Surface Force that the fleet's offensive power should be distributed more widely. The subsequent concept of Distributed Lethality, now more fully evolved into Distributed Maritime Operations (DMO), called for more ASMs to be placed on destroyers, cruisers, submarines, and perhaps other ship types. Since most of those vessels already carried Tomahawk land-attack missiles, the move was focused on war-at-sea. This was, however, only a partial move toward the distribution of combat power since it was still being applied to a Navy of relatively few large ships.

It is beyond the scope of this commentary to go into all the factors affecting the advisability or inadvisability of adopting a true flotilla approach to battle fleet design, including the issue of unmanned vessels and systems, but it appears that both the Hudson and CAPE studies have adopted that approach to some degree.

American Grand Strategy and U.S. Naval Power

Strategic dispersal has been practiced by the U.S. Navy for most of its history. Part of the reason is that the U.S. has two coasts separated by 3,000 miles of land, so even that ardent advocate of fleet concentration, Alfred Thayer Mahan, had to acknowledge the need for some kind of division of the fleet between the coasts (the East Coast getting the lion's share at the time though). Secondly, even since the earliest days of the Republic, the U.S. has had global commercial and political interests that the Navy has routinely been called upon to protect. Even in the years between the world wars, when the bulk of the Navy was concentrated in home waters, there were still small squadrons operating overseas. The Cold War forced the Navy to establish a ring of steel around Eurasia in support of containment of the Soviet Union. That ring was not disassembled after the collapse of the USSR, and any number of reasons have been offered for why, but there seems to be one overriding purpose that most do not recognize, but which bears heavily on fleet design.

The Prussian military theorist Carl von Clausewitz asserted the intimate relationship between war and politics, where war is a means to political ends. One of the rather mechanical linkages he describes is what he terms "culminating point of victory." Among its facets is that every offensive must ultimately end in some kind of defense in order to defend what was seized in prior victories. Extrapolating this idea beyond the purely military arena, especially if the victory is complete, some kind of political defense must



be established, otherwise, as Clausewitz admonishes, the result in war is never final. The monumental example of this was, of course, the two world wars of the 20th Century. As it became clear in late 1944 that the Axis powers would be defeated, American and allied statesmen gathered at Bretton Woods, New Hampshire to consider how to defend their hard-won victory. Their answer was to establish a framework of international institutions and rules that would, collectively, prevent the causes of the world wars from recurring. The United Nations, the International Monetary Fund, and World Bank were several of these measures. While the U.S. proceeded to demobilize its massive military establishment in late 1945, events soon forced the U.S. to recognize that the political and economic defense of the victory over the Axis would have to be supplemented with military force. By the early 1950s, the Navy had established its ring of steel around Eurasia.

Despite being widely studied in U.S. war colleges, Clausewitz is a difficult and esoteric read, and his concept of the culminating point of victory remains opaque to most, even senior military officers and statesmen. Therefore any number of justifications were advanced for the routine and extensive deployment of U.S. forces around the world that essentially described bunches of trees without seeing the forest. Deterrence, dissuasion, reassurance, engagement, and contingency response were all invoked at one time or another. Only in the 2007 CS21 document was there a glimpse of the forest: the defense of the global system. The Soviet Union, rogue nations, and terrorist organizations could come and go, but the system, always seemingly threatened somewhere by someone, endured. But the system, being the foundation of the defense of the 1945 victory, must have military protection and thus spurred an open-ended global commitment of U.S. naval power.

It was one thing for the U.S. to undertake such an epic mission when the national resource/requirement equation was in rough balance. But progressively, since the fall of the Soviet Union, the U.S. has constricted the resources dedicated to the comprehensive defense of the global system while also being unwilling to modify that mission. In one sense, the Navy is the canary in the coal mine: its operational and strategic problems, most recently manifested in the rejection of its FSA by the Secretary of Defense, are indicators of the requirements/resources mismatch at the level of grand strategy.

The Hudson Fleet

Viewed through the lens of this mismatch, what can be said about the suitability (i.e., if adopted, would the course of action achieve the mission), feasibility (able to be executed with available resources), and acceptability (involves an acceptable degree of risk) of the Hudson fleet design? It features nine nuclear aircraft carriers, eight large-deck amphibious ships, 64 large surface combatants, 52 small surface combatants, 80 corvettes, 22 other large amphibious ships and 26 smaller amphibious ships, and 60 nuclear attack subs, in addition to 12 *Columbia*-class ballistic missile submarines. In addition, the plan calls for 99 medium unmanned surface vessels (MSUV) and 40 extra-large unmanned undersea vehicles. For the rest, there are commensurate numbers of logistic and support vessels.

The fleet must be first examined with respect to operational and tactical dispersion, which is mostly associated with warfighting. To begin with, the number of large and small surface combatants advocated by Hudson (116) is actually smaller than the current fleet inventory of 120 (if including active Littoral Combat Ships – LCS). The major difference is the plan's 80 corvettes and 99 MSUVs. Assuming that the corvettes and at least some MSUVs will be capable of carrying long-range ASMs, the potential for operational/tactical dispersion exists, especially if projected Marine Corps ASM detachments are folded in. Depending on how these units are deployed in wartime, they would potentially constitute a very difficult problem for China, assuming that U.S. fleet operations were knitted together by a robust and resilient battle force network. In peacetime, as a consequence, they could enhance deterrence by elevating the credibility of U.S. combat power. These same principles would apply, perhaps in different ways, to other regions.

Strategic dispersion becomes more complicated. If the U.S. clings to its grand strategy of defending the system and cannot generate any significant increase in allied assistance, then the Navy must somehow make forces available in all regions. With fewer aircraft carrier strike groups and amphibious ready groups, the “unit of issue” for forward presence will have to change. The burden of presence will then fall



on the Hudson fleet's corvettes, small surface combatants, and small amphibious ships. Unmanned systems will play a limited (but in some cases, important) role in strategic dispersion.

Even at 581 total vessels, the Hudson navy would be challenged to achieve effective presence in all the required areas if current deployment practices are followed. Recall that some number of these units would be required for operational and tactical dispersion. This leads to the idea that a new organization of the fleet would be required. The new structure would consist of forward-based regional flotillas, the assigned units being able to contribute to operational and tactical dispersion in the region. In fact, Bryan Clark, lead on the Hudson study, was also lead on an earlier Center for Strategic and Budgetary Assessments (CSBA) effort, one of three 2016 Congressionally-mandated fleet architecture studies that recommended a similar arrangement. The CSBA study called for a series of regional "deterrent" forces coupled with "maneuver" forces consisting of carrier strike groups. That bifurcated framework would be nicely supported by the Hudson fleet. Forward-based regional flotillas would constitute the key presence tool, supplemented at intervals by a pool of deployable forces, mainly the carrier strike groups and amphibious ready groups.

Such a structure would require some adjustment of the Unified Command Plan (UCP). The regional flotillas would constitute the forces for the regional combatant commanders (COCOMs), much like current practice. The difference would be in how deployment pool forces are handled. Current practice is to assign a share of a service's forces to each COCOM, which is strategically inefficient in an era of constrained ship numbers. The Hudson fleet has too few carriers and large deck amphibians to make that process viable. Rather, there should be some kind of staff located in Washington, D.C. that controls the assignment of deployment pool forces. Such a staff would structure such operations on a global view of national strategy, deploying with a specific mission vice simply keeping station. Once dispatched to a region they would come under COCOM command but would not be "captured." The flow of global deployers would be controlled from the SECDEF group, which would be in a better position to also integrate the range of non-military elements to support national strategy.

If one goes through the exercise of allocating ships to three regional flotillas and the deployment pool, few are left for the rest of the world, including Africa, Latin America, Oceania, and the Arctic. Also in short supply are forces available for warfighting experimentation and force development, although deployment pool forces could be used. But regional flotillas would have to be thinned out to integrate operational and tactical dispersion into fleet experiments. In going through this exercise, a reasonable number of units must be allocated to long-term maintenance rotations. One potential wild card would be to use logistic and support ships for routine constabulary duty, especially outside flotilla regions.

Conclusion

The bottom line is that the Hudson and presumably CAPE studies offer fleet designs that are potentially suitable, feasible, and acceptable, if and only if organizational adjustments accompany them. Presumably, both studies were based on a shipbuilding budget no greater than today's. If not, their feasibility is compromised. It also likely matters how they are implemented, the dynamics of how the Navy gets from its current design to the recommended one while avoiding the perception by adversaries of opening or closing windows of opportunity for aggression.

Beyond those considerations, many decision-makers within the Navy bureaucracy still remain deeply wedded to the current fleet architecture. This source of inertia and resistance will have to be overcome if fleet design is to be changed. Similarly, changes to the Unified Command Plan will face opposition within both the Pentagon and Congress. It will take strong, committed, and persistent leadership from a succession of Secretaries of Defense and Chiefs of Naval Operations to achieve it.

<http://cimsec.org/a-decisive-flotilla-assessing-the-hudson-fleet-design/46371>

[Return to Index](#)



Force Structure Perspectives: Capt. Robert Rubel (ret.) on OSD Seizing Fleet Design

(CIMSEC 29 Oct 20) ... Dmitry Filipoff

As a part of CIMSEC's Force Structure Perspectives Series, CIMSEC discussed the Battle Force 2045 fleet design with Capt. Robert Rubel (ret.), who served as the chair of the Naval War College's wargaming department and dean of the College's Center for Naval Warfare Studies. In this conversation, Capt. Rubel discusses the Navy's longstanding aversion to distributed force structure elements, why the Office of the Secretary of Defense may have seized the process of fleet design, and how to move the fleet toward more effective strategic and tactical dispersion.

The Secretary of Defense recently announced a new fleet plan for a future U.S. Navy of 500 ships, a major increase over today's fleet of around 300 ships. Among many changes, the fleet emphasizes substantial additions in areas such as sealift, unmanned warships, submarines, and smaller surface combatants. What do you make of the size of this fleet and its mix of platforms?

From one perspective, the Secretary's plan is encouraging. A number of us armchair admirals have been advocating for such a redesign since the late 1990s. Notably, **the late Professor Capt. Wayne Hughes, long-time chairman of the Operations Research Department at the Naval Postgraduate School**, advocated for what he called a "bi-modal" Navy consisting of a mix of ships similar to what both the Hudson Institute and Cost Assessment and Program Evaluation (CAPE) office came up with.

The notion of a mixed fleet was at least euphemistically embedded in the 2007 national maritime strategy, *A Cooperative Strategy for 21st Century Seapower* (CS21). It called for "credible combat power" to be concentrated in the Middle East and the Western Pacific with "globally distributed, mission tailored" forces being dispatched to other areas to carry out an array of peacetime missions, including maritime security, and disaster relief and humanitarian assistance operations. This concept was the result of an input to the strategy development process by Prof. Hughes. It seemed congruent with the document's sweeping assertion that the Sea Services would deploy globally to "...protect and sustain the peaceful global system comprised of interdependent networks of trade, finance, information, law, people and governance." Such a comprehensive approach to defending a favorable world order clearly called for a large and strategically dispersed Navy, and this prospective fleet design appears to deliver such a force.

This new force structure may be used to execute Navy and Marine Corps warfighting concepts, including Distributed Maritime Operations (DMO), and Expeditionary Advanced Base Operations (EABO). These concepts and the new fleet design embody leadership's thinking on the nature of future warfighting tactics and operations. Are these warfighting concepts mature or flexible enough to provide a long-term foundation for building this redesigned fleet? Are trends in tactics and technology adequately captured?

If the Secretary's design adopts provisions in the Hudson study, it will contain a different approach to the application of new technology. While the number and types of ships in the design are clearly congruent with DMO and EABO, there are other underlying factors that the numbers in and of themselves do not capture. The Hudson study advocates a fundamentally different approach to air and missile defense, for example, substituting closer-in engagements for the long-range layered structure in current doctrine.

Perhaps most fundamentally, the Hudson fleet design is based on what they call "decision-centric warfare" which, based on the DARPA concept of mosaic warfare, seeks to impose insoluble dilemmas and confusion on the enemy. Therefore the new fleet, in a Taiwan invasion scenario for example, would focus on disruption of enemy plans rather than just attrition of enemy forces. This necessarily incorporates a multi-domain approach and seems to mesh well with the emerging joint command and control concept. Whether the decision-centric "theory of victory" will work is an imponderable, but in any case, the projected force composition seems flexible enough to accommodate other approaches if necessary.

The Navy has long been concerned about whether it can sustainably increase the size of the fleet within traditional levels of shipbuilding funding. How can we view the affordability and sustainability of this fleet?



I have been a budget skeptic for quite some time and thus far my skepticism has been justified. I am encouraged by Secretary Esper's assertion that he will augment the Navy's Shipbuilding and Conversion (SCN) account, but his remaining time in office might be measured in months. In any case, it is a matter of robbing Peter to pay Paul, and "Peter" – other Services and programs that stand to lose money – can be expected to put up a fight. Meanwhile, COVID relief expenditures will prevent any significant increase to the defense budget.

The Hudson plan can theoretically be executed within current SCN guidelines and so I am less skeptical of it. But the Secretary's plan is more expansive, and while I do like it, I do not think it will be possible to achieve. There are going to have to be difficult internal tradeoffs, most notably reducing the number of nuclear aircraft carriers to bankroll other programs.

This process was notable for including the direct involvement and direction of the Office of the Secretary of Defense, which initially rejected the Navy and Marine Corps force structure assessment delivered in January. What is unique about how this process played out and what can we learn for making future assessments?

There seems to be some kind of "deep state" within the Navy that is wedded to current fleet design. There is not room here to go into all the ins and outs of this matter, but since the late 1990s the Navy has repeatedly rejected calls for a less carrier-centric and more distributed fleet. The LCS is kind of the exception that proves the rule. The need for a smaller, cheaper combatant that could be built in larger numbers became evident in that period, but the Navy acquisition process could not tolerate a truly small, cheap vessel. And so it rushed into production a ship that was designed around too much and perhaps too irrelevant to new technology, and whose cost bloated to several times what was envisioned. Then it rolled the dice again on the *Ford*-class carrier program and the *Zumwalt*-class destroyer, both representing ruinously expensive technological overreach. The Optimized Fleet Response Plan, designed to squeeze more readiness out of an insufficient inventory of ships, also has not worked.

Predictably, the Navy's process produced a fleet structure assessment that was still wedded to these types of approaches, and SECDEF blew the whistle on this. It might be the case that this is simply a one-time interrupt and if a new administration takes office things will snap back to the way they were. Or perhaps OSD will now keep the fleet design process in its hands permanently.

Ideally, in my view, this episode will break up the Navy's fixation on the aforementioned force structure concepts and approaches, and it will adopt a new approach to fleet design that is freed from the strictures of machine-based campaign analysis based on canonical contingency scenarios. There has been a struggle for the last several decades within the Navy between the strategy shop and resource shop over this, with the resource shop always winning. I hope SECDEF's intervention will alter that balance of power.

What does it mean for U.S. naval strategy and great power competitiveness to build this fleet, and to build it soon? Does it address a gap between national strategy and the navy needed to execute it?

Clearly the Navy does not have enough ships and other resources to support the national grand strategy of comprehensively defending our desired international order. That strategy requires both strategic dispersal and operational concentration. The 2007 CS21 document expressed this succinctly when it called for concentrated credible combat power in the Middle East and Western Pacific, and "globally distributed, mission tailored" forces to conduct presence elsewhere. The problem is that the nation either cannot or will not make the kind of investment necessary to generate a Navy of sufficient size to do this based on the current fleet design. Moreover, trends in weapons and technology make the current concentrated nature of the fleet vulnerable.

Therefore the Navy must shift to a fleet design that is based on both strategic and tactical dispersion. Doing so would permit a more rapid adjustment, since smaller combatants could be built at more yards. Now the question is whether the lumbering acquisition process could also adjust. The problem is likened to the LCS debacle, in which the process proceeded on the basis of "ready, shoot, aim," which made the Navy wind its way forward to some extent. And so it will want to be more deliberate in the next round of ship design and procurement. But geopolitical events are outpacing us in that respect. The Navy really



needs to find a way to increase its combat lethality in the short term, regardless of what overall fleet design is adopted.

Previous force structure assessments conducted in 2016 were later considered by some to be overly optimistic with respect to certain factors, such as available resourcing. How can we be confident in this new assessment, and that it will spur the change it recommends? What comes next to build this fleet?

Navy shipbuilding plans have almost always been based on a “bow wave” of anticipated future shipbuilding budgets, and I suspect the latest one SECDEF rejected was no different. But even SECDEF himself seems to have caught a mild form of the disease based on his statements that he will increase the shipbuilding budget. But current-year increases are one thing, sustained national commitment to a larger fleet is quite another.

It seems that only looming existential threats can spur such a buildup, and there do not seem to be any of these on the horizon, at least in the public’s view, and notwithstanding the exhortations on great power competition contained in both the current National Security Strategy and National Defense Strategy documents. Moreover, it seems that the cost growth of ships has been outpacing inflation, so even modest increases over time will not be enough. In order to achieve effective strategic dispersal through greater numbers of ships and also increase combat lethality through tactical dispersion, the Navy will have to fundamentally change its attitude toward small, cheap ships that are armed with smart, long-range missiles, and soon.

<http://cimsec.org/force-structure-perspectives-capt-robert-rubel-ret-on-osd-seizing-fleet-design/46248>

[Return to Index](#)

RESEARCH:

Ocean Power Technologies Contracts with ACET for US Navy SLAMR Initiative

(GlobeNewswire 27 Oct 20)

Ocean Power Technologies, Inc. (“OPT” or “the Company”) (NASDAQ: OPTT), a leader in innovative and cost-effective ocean energy solutions, today announced it has been contracted by Reston, Virginia-based Adams Communications & Engineering Technology (ACET) to conduct a feasibility study. The evaluation of a PB3 PowerBuoy® power and 5G communications solution comes in support of the U.S. Navy’s **Naval Postgraduate School’s (NPS) Sea, Land, Air, Military Research (SLAMR) Initiative**, which conducts interdisciplinary research in unmanned and robotic systems.

ACET President and CEO Charles Adams stated, “ACET’s subcontract with OPT brings this potential technology solution one step closer to reality through the SLAMR research initiative at NPS and demonstrates our commitment to deliver products that meet or exceed our customer’s needs.”

“This NPS initiative is about exploiting cutting edge technologies in autonomous systems for marine defense. We are proud to be part of this effort,” said George Kirby, President and Chief Executive Officer of OPT. “Working closely with the U.S. Navy, ACET, and the SLAMR initiative, we believe that OPT’s solutions can be a focal point of the SLAMR mission profile.”

OPT and ACET will review, validate, and determine the cost and configuration of integrating OPT solutions as the basis of an autonomous offshore 5G communications system. The study will detail preliminary operational, deployment, and maintenance plans, and regulatory approval requirements to support the SLAMR initiative’s focus on unmanned and robotic systems.

<https://www.globenewswire.com/news-release/2020/10/27/2115179/0/en/Ocean-Power-Technologies-Contracts-With-ACET-for-U-S-Navy-SLAMR-Initiative.html>

[Return to Index](#)



NPS Supports FVEY Efforts to Streamline Space Technologies

(7thSpace.com)

(NPS.edu 27 Oct 20) ... Rebecca Hoag

The creation of Space Force has inspired a renewed interest in space systems research and innovation. In August, the Naval Postgraduate School (NPS) received funding from the DOD to lead a project to streamline space technology among Five Eye (FVEY) countries. The project, headed by NPS professors Giovanni Minelli and Wenschel Lan, involves sending up two CubeSats containing experimental technology created by NPS students and New Zealand researchers. The payloads must be ready to launch into orbit by 2022. Once in space, the payloads will communicate with NPS researchers in the new Radio Frequency (RF) Testing Lab that overlooks the Monterey Bay.

“The grand vision for all of this is that the countries have mutual space-based infrastructure and ground-based infrastructure,” Minelli explains.

Interdisciplinary, Cutting-Edge Space Education

NPS is a leader in graduate education and research in the field of space systems ... in fact, more NASA astronauts have graduate-level degrees from NPS than any other institution in the world. With its two Space Systems Master of Science programs and multiple certificate programs all under the Space Systems Academic Group (SSAG), the university has developed a robust capability for both education and innovative research in the field.

Dr. Jim Newman, professor and chair of the SSAG, is also a former NASA astronaut and a veteran of four Space Shuttle flights. Since 1961 when NPS graduated its first astronauts, Space Systems education programs have grown in size and intricacy, as Newman discussed in a [recent episode of the university's Listen, Learn, Lead](#) series with NPS President retired Vice Adm. Ann E. Rondeau.

Not only do they involve understanding the physics behind launching and maintaining technology in orbit, he says, they also require understanding international diplomacy. To accommodate this, the Space Systems program is split into two curricula: Space Systems Engineering and Space Systems Operations. The engineering program strictly focuses on building technical skills and knowledge surrounding military and Navy space systems, while the operations program encompasses military operations and applications in space.

Students of both Space Systems majors often work together on hands-on research projects. This is true for the international CubeSat project. For example, one of Lan's engineering students, Navy Lt. Logan West, is completing his thesis work designing one of the payloads before he graduates and returns to the fleet in December. The payload has an X-band transmitter to begin the transition from congested traditional communication frequencies to X-band, which has better bandwidth and data range. West's work will be picked up by one of Lan's operations students, Navy Lt. Allyson Claybaugh, who will focus more on the ground-based receiver to make sure it properly communicates with the payload once it's in space.

West says he will continue to monitor the project's progress after graduation.

“It'll just be cool to know that I had a direct hand in something that is going to launch,” West says. “I will definitely be following up with Dr. Lan to make sure I know the status and how it's progressing.”

Looking ahead, West hopes to one day see his name on the list of NPS alumni that become NASA astronauts ... the university boasts more astronaut grads than any graduate school in the world. But beyond the pinnacle goal of space travel, most students in the Space Systems programs go on to work in a related field after graduation, and some even post payback tour. Regardless, all students are expected to bring back what they've learned to their respective services.

“The big-ticket item from my side is to bring that knowledge about space capabilities back to really smarten us [SEALS] up and figure out ways it can impact our domain,” West explains.

Claybaugh works alongside fellow operations students Lt. Chris Brave and Lt. Anastasia Novosyolovablatt. Brave, who has a double major in physics, is designing the next generation of terahertz imaging, which will have the capability to see through non-metallic solids that the sun illuminates. Lan explains it's like an X-ray that requires less power. Novosyolovablatt's task is to



integrate the hardware of the New Zealand payload, BeaconSat, into the rest of the project. In this way, she's directly engaging with the international aspect of the project.

"An interesting thing about the operations curriculum is that it gets technical, like hard science, but we also give them a flavor of the policy side because it's an important piece," Lan says.

Operations students take a course in the Department of National Security Affairs with renowned NPS Professor Clay Moltz to further their understanding of how space technology is used and how it could be incorporated into the rest of the U.S. military.

Streamlining Space Technology

The International CubeSat project is meant to streamline FVEY technology so the FVEY countries can better work together in space. This involves using the same radio frequency, payload design and ground-based antennas among other things. NPS was one of the first sites to test out many of these industry standards.

Over the past few months, Minelli, Lan and their students have turned a large third-floor room at NPS into the official RF Lab. The space sits right under NPS' own antenna.

"This is our sandbox," Minelli says. "This is where we test them out."

NPS' Space Labs have also brought elements of space to its students, so they can properly test out their payloads. The CubeSat skeleton is 3D printed, so students don't have to start completely from scratch. They can carefully create their prototypes, using Raspberry Pi single-board computers in the clean room before testing them out in a variety of situations. For example, students have access to a thermo-pressure chamber and shaking machine that can "shake your teeth out," according to Lan. They also conduct weather balloon tests to see how payloads respond to orbit-like atmospheric conditions. The goal is to think of everything that could possibly go wrong before actually sending a payload up into space.

"Murphy's [Law is] a partner in this," Lan jokes.

This project works with lower cost technology to start. Once FVEY countries better understand how to assimilate international hardware with FVEY standards, similar projects will use more advanced technology. NPS will continue to help lead this effort.

"In my opinion, NPS is one of the best space universities out there," West says. "They're really good at getting students hands on, interacting with designing systems from start to finish, figuring out everything about it and how to support it ... I think they provide the best support I've ever seen from a university through applied research that comes back and directly benefits military members."

<http://7thspace.com/headlines/1359518/nps-supports-fvey-efforts-to-streamline-space-technologies.html>

<https://nps.edu/-/nps-supports-fvey-efforts-to-streamline-space-technologies>

[Return to Index](#)

FACULTY:

China to Release First Pakistani Film in Almost 40 Years Amid Tensions with India

(The Print 27 Oct 20) ... Kairvy Grewal

New Delhi: For the first time in close to 40 years, a Pakistani film is set to release in Chinese cinemas in November. This move comes just ahead of the celebrations of the 70th anniversary of China and Pakistan's diplomatic relations, established in May 1951. It also comes at a time when China's relationship with India is at a low, due to border tensions.

The film, titled *Parwaaz Hai Junoon*, will hit the theatres on 13 November. A military action movie, starring Hamza Ali Abbasi, Ahad Raza Mir and Hania Aamir, it was released in Pakistan in 2018.

The date for its China premiere was announced a day after Chinese ministry spokesman Zhao Lijian appreciated Pakistan for its stance on Xinjiang, a province that has been in the spotlight for



holding millions of Uyghur Muslims in detention centres. After a Chinese-sponsored visit to the province, Moed Yusuf, Pakistani Prime Minister's advisor on national security, had said that Islamabad had "absolutely zero concerns" about the province.

The China-Pakistan relationship

Directed by Haseeb Hassan, the film tells the story of young, patriotic cadets who emerge as Pakistan's best fighter pilots. The film has been publicised as a "tribute to the Pakistan airforce," and became the fifth-highest grossing Pakistani movie of all time.

The characters in the film dream of flying JF-17 fighter jets, which have been developed together by China and Pakistan. This jet is seen as another option to America's F-16 jet, which reportedly have been difficult to come by, given the deteriorating Pakistan-US ties.

Covell Meyskens, a historian of China in the National Security Affairs Department at the Naval Postgraduate School in California, emphasised importance of this fighter jets appearance in the film, saying, "There's a few fetishised military objects, and one of them is definitely the fighter plane." This technology is "one of the areas China wants to compete in; they've been partnering with Pakistan on this stuff for a long time," he added.

The move to release the film in China comes as a relief to the Pakistani movie industry, which has been struggling to make ends meet given its ban on Indian films. With Pakistani films hitting Chinese screens, the industry now has access to a new, vast market.

<https://theprint.in/world/china-to-release-first-pakistani-film-in-almost-40-years-amid-tensions-with-india/531608/>

[Return to Index](#)

Blue Homeland Doctrine has Broad Consensus in Turkey

(Ahval News 29 Oct 20) ... Nicholas Morgan

Amidst ongoing tensions between Turkey and its neighbours in the eastern Mediterrennean Sea, a once obscure strategic doctrine has become a means of explaining this conflict.

Blue Homeland, or Mavi Vatan in Turkish, promotes the idea that Turkey needs to assert itself forcefully in the waters beyond Anatolia where it has a strategic interest. On the surface, this appears to reflect accurately the disputes today with Greece and Cyprus over offshore mineral resources in the region.

Dr. Ryan Gingeras, an associate professor at the Naval Postgraduate School in Monterey, California, said the concept is relatively new in Turkish strategic thinking and reflects an ideological position held by several high-ranking officers in the military for years.

Blue Homeland is "arguably contrived from within Turkish government circles", Gingeras told Ahval in a podcast. "It is meant as something more than a kind of slogan or catchphrase aimed at defining Turkish interests."

Gingeras, who has written pieces examining Blue Homeland's components, emphasised that the doctrine has only gained prominence in the last several years and its exact origins remain unclear. However, he attributes its creation to a retired Turkish naval officer named Cem Gurdeniz.

The former rear admiral rose through the ranks of the Turkish Navy including stints at NATO headquarters, a stint at the Naval Postgraduate School where Gingeras currently teaches, and this culminated with a stint running the naval policy planning staff from 2009 to 2012.

In 2011, Gurdeniz was charged of conspiracy to stage a coup against President Recep Tayyip Erdoğan along with many other officers and was sentenced to 18 years imprisonment during the so-called Sledgehammer Trials. However, he was released early in 2015.

According to Gingeras, Gurdeniz's worldview veered into the realm of conspiratorial thinking rooted in a strain of thought called Eurasianism that is common among some circles of the Turkish military's



upper ranks. It is characterised by a suspicion of the West and a belief that Turkey's future ultimately lies with other Eurasian powers such as Russia and China.

It is something of an unexpected partnership between former members of Turkey's secularist brass and Erdoğan's ruling party, but this assertive, new concept has found wide support across the political spectrum, including factions of the Turkish opposition who embrace this idea.

Members of the Republican People's Party (CHP), the leading secular party, have supported the confrontation over natural resources with Greece and Cyprus while the Good Party's (İYİP) leadership stated that they considered the security of the "blue homeland" equal to that of the mainland.

"It is generally agreed that Turkey possesses a great deal of potential as an emerging power at this moment," said Gingeras. He said there is a shared belief that some of Turkey's Western partners are obstacles to achieving this status.

To go along with its wider regional designs, Turkey has invested for years now in a programme to modernise its navy. Long considered secondary to its army, Ankara has purchased new warships including corvettes, submarines and even a light aircraft carrier called the Anadolu. Increasingly, these ships have been constructed at home in spite of its sluggish economy.

Gingeras said that the root of Turkey's naval build-up goes back to 1974, when it was subject to an arms embargo for its invasion of Cyprus. Despite this agenda to improve its military capacity at sea, progress has been uneven despite claims from pro-government media that suggest the contrary, he said.

"Most of this navy only exists on paper, it has not been actualised yet," Gingeras said. Turkey still does not entirely rely on domestic parts for all of its fleet, and its removal from the United States' F-35 stealth fighter jet programme after purchasing the Russian S-400 missile defence system has hampered the modernisation agenda, he said.

Washington has threatened further economic and political reprisals for Ankara's purchase of the S-400, which it says could be used by Russia to garner sensitive information on the F-35 and other NATO weapons.

As prominent as Blue Homeland has become as of late, the extent to which it explains all of Turkey's recent actions abroad is debatable.

Despite Gurdeniz's relatively active presence on the Turkish media circuit, some of his ideological kinsmen have seen their stock fall within the government. A case in point is former rear admiral Cihat Yayci, who retired from the navy after a demotion by Erdoğan. The reasons for this are subject to speculation, including that Erdoğan or his defence minister, Hulusi Akar, distrust politically influential officers and saw fit to clip his wings.

Some have called the place of Blue Homeland into question for the decision, but Gingeras cautioned against reading too deeply into these moves or even the perceived popularity of Gurdeniz's thinking.

"Turkish strategic thinking still remains somewhat opaque," Gingeras said to Ahval. "We shouldn't take the word of former flag officers as being definitive evidence of ways people in the Turkish government right now are thinking."

<https://ahvalnews.com/blue-homeland/blue-homeland-doctrine-has-broad-consensus-turkey#>

[Return to Index](#)

Will Russia Influence the American Vote?

(The Conversation 29 Oct 20)

(Fairfield Citizen 29 Oct 20)

(The Telegraph 29 Oct 20) ... **Scott Jasper, Lecturer in National Security Affairs, Naval Postgraduate School**

The idea that someone recently tried to influence Americans to vote for a particular candidate by sending them threatening emails may sound outlandish – as might federal officials' allegation that the Iranian government is behind those messages.

But U.S. voters should prepare for even more strange and unexpected examples of information warfare that manipulate, distort or destroy election-related information between now and Election Day –



and perhaps beyond that, depending on whether there are questions about who may have won the presidency.

Since 2016, Americans have learned that foreign interests attempt to affect the outcomes of presidential elections, including with social media postings and television ads.

As a scholar of Russian cyber operations, I know other nations, and Russia in particular, will go to extreme measures to influence people and destabilize democracy in the U.S. and elsewhere.

Be on guard

Here is what to look out for.

Other measures the Russians could still take include announcements aimed at influencing the vote, such as leaked emails and documents that may not be authentic.

Also, watch for claims that hackers have gained access to, or manipulated, state or local election systems. It doesn't have to be true for people to become worried, uncertain and untrusting of election results.

Be prepared to see ransomware attacks – software that seizes control of key computers and demands a ransom to unlock the system – on precincts in key battleground states, which may not aim to alter the vote, but rather stall the vote count and certification. A mid-October ransomware attack on Hall County, Georgia, government networks interrupted phone service and some computer systems, including a database used to verify voters' signatures.

Anything can happen – but Americans can be ready to skeptically and critically examine any announcements of attempted, or claims of successful, election interference.

Misleading propaganda

The real goal of information warriors – no matter where they are from, even beyond Russia and Iran – is to make it hard for Americans to know what is real.

In 2016, for instance, Russian disinformation operations created fake social media accounts claiming to be U.S. citizens, in hopes of spreading political division and conflict. They portrayed Hillary Clinton as weak and corrupt, which damaged her support among voters.

In this election cycle, the information warfare is more sophisticated. Russian-made propaganda has portrayed Joe Biden as incompetent and corrupt – but has also claimed that U.S. democracy is failing. Examples include an episode on a Kremlin-controlled Sputnik show titled “How much money to buy the presidency? Bloomberg tries to find out” and an episode called “Iowa Caucus Chaos: People are Losing Confidence in Election Results” on its sibling Russia Today video network. These outlets are available across the U.S. on radio, cable and satellite TV systems, and online – including on conservative websites.

Russian information warriors are impersonating real advocacy groups. They even created a now-defunct news website named Peace Data, which used fake names and photos for its editors, but hired unsuspecting real journalists as freelancers and ordered them to write stories critical of Biden, discussing corruption, abuse of power and human rights violations.

Some of the stories were also hostile to Trump, which indicates that the main goal remains to sow division in the United States.

Visible responses

Fortunately, businesses, federal cybersecurity officials and intelligence leaders are signaling that they are more willing than they were in 2016 to sound the alarm about foreign interference in the U.S. presidential election.

For instance, in August, the National Security Agency warned the cybersecurity community about malicious software written by the Russian military, including details of the military unit involved, as well as advice on how system administrators can protect their networks and servers.

And in September, Microsoft reported that a Russian hacking group has attempted to intrude into the digital files of at least 200 organizations tied to the 2020 U.S. election. It targeted political campaigns,



advocacy groups, parties and political consultants. Affiliated with Russian military intelligence, this is the same group that hacked and leaked damaging Democratic Party emails in 2016.

In late October, Director of National Intelligence John Ratcliffe and FBI Director Christopher Wray alleged that Russia and Iran had obtained U.S. voter registration information, at least some of which is publicly available. They also claimed – without offering evidence – that Iran is responsible for sending threatening emails to voters in as many as four states, including Florida and Alaska, that reportedly said “You will vote for Trump on Election Day or we will come after you.”

Big technology platforms have also taken steps to fight disinformation. Facebook took down a network of fake accounts linked to Russian military intelligence. Facebook will not post political ads in the week week before Election Day and Google will reject all election-related ads after Election Day to prevent false claims.

Twitter has also shut down accounts that it could reliably attribute to Russian-sponsored entities. And Twitter has sought to slow the spread of posts by limiting retweeting – though that has concerned Republicans, who fear this measure will stifle conservatives’ speech.

Post-vote chaos

The week after Election Day could be volatile, especially if mail-in ballots are slow to be counted and results appear to change as the count continues.

Russia could use social media accounts that have not yet been detected to push reports of voter suppression or ballot fraud, trying to convince the public that election results are somehow inaccurate. U.S. Cyber Command might take Russian troll servers offline, as it did during the 2018 U.S. midterm election.

Meanwhile, voters can protect themselves by being skeptical of urgent or alarming claims in online media, and by remembering that they may be targets of disinformation campaigns. U.S. security agency efforts might stop Russia from altering the vote count, but sowing discord about its integrity could be enough to serve Russia’s goal of undermining democracy.

<https://theconversation.com/will-russia-influence-the-american-vote-148860>

<https://www.fairfieldcitizenonline.com/news/article/Will-Russia-influence-the-American-vote-15684884.php>

<https://www.thetelegraph.com/news/article/Will-Russia-influence-the-American-vote-15684884.php>

[Return to Index](#)

ALUMNI:

AFRL Researchers Recognized as Early Career Leaders

(Robins AFB 27 Oct 20) ... Jeanne Daily

Air Force Research Laboratory commander, Brig. Gen. Heather L. Pringle, recently announced the 2020 AFRL Fellows and the newest class of AFRL Science and Engineering Early Career Award (S&E ECA) recipients. She welcomed 11 researchers as AFRL Fellows and nine scientists and engineers for Early Career Awards. Two of the S&E ECA honorees work in AFRL units located on Kirtland Air Force Base, N.M.

This award, first given in 2012, recognizes the laboratory’s most promising young scientists and engineers for exceptional leadership potential and significant research or engineering achievements during the on-set of their career.

Dr. Mark Spencer began his government career in 2014 at AFRL’s Directed Energy Directorate where he is a senior research physicist. Spencer leads the way in research to understand deep atmospheric turbulence.



“This extremely difficult challenge results from propagating laser light vast distances through the atmosphere and ultimately prevents our warfighters from defeating distant threats using directed-energy functions,” Spencer said.

Spencer is from a small town in southern California, named Hemet, which he stated is within the “Inland Empire” as opposed to large metropolitan areas such as San Diego and Los Angeles.

He received a Bachelor of Science in Physics from the University of Redlands – a small liberal arts university in Redlands, Calif., and his master’s and doctorate degrees in Optical Sciences and Engineering from the Air Force Institute of Technology located on Wright Patterson AFB, Ohio.

In discussing a career highlight, Spencer said his two U.S. patents, one in 2019 and the other in 2020, top the list. “These patents were awarded jointly with fellow Air Force researchers, Lt. Col. Casey Pellizzari, an assistant professor at the United States Air Force Academy, and Charles Bouman, a professor at Purdue University,” he said.

“The patents describe the hardware and methodology needed to image laser light vast distances through the atmosphere with never-before-seen performance,” Spencer said. “Such technology will enable advanced directed-energy functions for our warfighters. I am leading efforts to robustly demonstrate this technology through lab and field tests beginning in late 2021 and into early 2022.”

Spencer said he enjoys working for AFRL because the lab gives him the opportunity to use his education to develop cutting-edge technology for the warfighter.

“I really enjoy mentoring up-and-coming scientists and engineers at AFRL. It is my hope that my overall efforts will solve critical technology gaps for the Department of Defense over the course of my career.”

“This recognition means the world to me because it acknowledges all the great work that we do at AFRL, particularly within the Directed Energy Directorate,” Spencer said. “It is rewarding to look back at all the things I have been a part of at AFRL over the past six years. I would like to thank everyone who has helped me along the way!”

The AFRL Space Vehicles Directorate nominated Dr. Richard ‘Zap’ Zappulla II for the Early Career Award. Zappulla has been working with AFRL since 2013. As a research aerospace engineer, he has contributed to guidance, navigation and control (GNC) technologies in the areas of space domain awareness and satellite control on three recent directorate flight experiments.

The experiments reflect an Air Force investment of almost \$1 billion. Zappulla’s nomination indicates one of these projects, called the Mycroft spacecraft flight experiment, has been cited by Dr. Will Roper, Assistant Secretary of the Air Force for Acquisition, Technology and Logistics and Gen. Jay Raymond, Chief of Space Operations for the U.S. Space Force as being the “...the Air Force’s biggest game changer.”

Zappulla grew up in Boca Raton, Fla. He received a Bachelor of Science Degree in Aerospace Engineering with highest honors from the Georgia Institute of Technology, followed by a Master of Science Degree in Aerospace Engineering from the same institution. He would go on to receive a **doctorate in Astronautical Engineering from the Naval Postgraduate School.**

“My career highlight so far, was being the lead GNC engineer and principal investigator for the Mycroft flight experiment,” Zappulla said.

“This program allowed me the opportunity to work alongside of, and learn from some amazing individuals while advancing the state-of-the-art in space domain awareness technologies and capabilities for the U.S. Air Force, the U.S. Space Force and the Department of Defense.”

“The experiences, opportunities and level of ownership I had in executing and making the Mycroft flight experiment a tremendous success was “out of this world,” and could not have happened anywhere else,” he said. “Because of this flight experiment, I grew as an engineer and leader, and had the honor to personally brief numerous senior leaders to include the current Secretary of the Air Force and Air Force Chief Scientist.”

Zappulla said he enjoys being able to solve and contribute to the solutions of the next generation of “hard problems” that the Department of the Air Force and DoD face.



“This means working hand-in-hand with the entire community,” he said. “This includes the acquisition folks, the space operators and when the occasions arise, the opportunity to provide senior leaders the current state-of-the-art and state-of-the-possible, so that it can be included in their decision-making calculus.”

“I am honored and humbled to be recognized for the AFRL Scientist and Engineer Early Career Award,” Zappulla said. “I believe that this recognition acknowledges the tremendous achievements of the Space Vehicles Directorate, and the importance and relevance of our work to the Air Force, Space Force and Department of Defense.”

<https://www.robins.af.mil/News/Article-Display/Article/2395255/afrl-researchers-recognized-as-early-career-leaders/>

[Return to Index](#)

NSWCDD Dam Neck Activity Change of Command Highlights Teamwork and ‘War Winning Capability’ for the Fleet

(Naval Sea Systems Command 29 Oct 20)

Cmdr. Michael Aiena relieved Cmdr. Joe Oravec as commanding officer of Naval Surface Warfare Center Dahlgren Division (NSWCDD) Dam Neck Activity in a change of command ceremony held at Dam Neck Activity’s Hopper Hall auditorium, Oct. 16.

“It has been a great privilege to serve as the commanding officer of Dam Neck Activity,” said Oravec while speaking to NSWCDD Dam Neck Activity Sailors, employees, and guests on site as well as those watching via a live Teams broadcast. “I have enjoyed both our challenges and our successes and I will always remain a strong believer in the dedication of the Dam Neck workforce.”

Oravec was awarded the Meritorious Service Medal (gold star in lieu of second award) for his achievements as NSWCDD Dam Neck Activity commanding officer. He told the audience that Dam Neck’s ability to maintain direct support to both the fleet and to program sponsors – especially in light of COVID-19 challenges – were nothing short of outstanding.

Rear Adm. Kevin Byrne, Commander of the NAVSEA Warfare Centers, was the ceremony’s senior officer in attendance and guest speaker.

Once Aiena read his orders and assumed command of NSWCDD Dam Neck Activity, he addressed the audience, including his predecessor.

“I would like to congratulate you on a successful command tour and thank you for a thorough turnover,” Aiena told Oravec. “Your dedication to the Dam Neck mission and team is clear, both in your words and in your actions. I will strive to take as good a care of your team as you have done. As you depart, please know we will build upon the solid foundation you have laid. Everyone at team Dam Neck congratulates you on a job well done and is excited for you and your family as you proceed outbound to the Missile Defense Agency as a major program manager.”

A native of New Orleans, La., Aiena served in several seagoing and shore-based assignments after graduating from the U.S. Naval Academy in 2000. He most recently served as the electronic warfare and electro-optical and infrared assistant for Above Water Sensors and Lasers Directorate at the Program Executive Office for Integrated Warfare Systems (PEO IWS) in Washington D.C.

“I am humbled to have been selected as the commanding officer, Naval Surface Warfare Center Dahlgren Division Dam Neck Activity,” said Aiena. “I am thrilled with this opportunity to work with the Sailors and civilians that make up the command for they are our most valuable resource.”

In the course of his assumption of command remarks, Aiena recounted the commissioning ceremony for the USS Arleigh Burke (DDG 51) in 1991. The lead ship of the Arleigh Burke class of guided missile destroyers was named for former Chief of Naval Operations Adm. Arleigh Burke. “This ship is built to fight, you’d better know how,” he said, repeating the words Burke spoke at the ship’s commissioning ceremony.



“For team Dam Neck, this means that in the areas of integrated training, cyber warfare capability, fleet support expertise, and safety – we will execute smartly in doing our part to make our Sailors and their equipment ready for sustained combat operations,” Aiena told his audience.

The new NSWCDD Dam Neck Activity commanding officer also addressed Capt. Casey Plew, NSWCDD commanding officer, and John Fiore, NSWCDD technical director. “Capt. Plew, Mr. Fiore – thank you, I look forward to and embrace this opportunity to work with you and your team as we help design, deliver, and sustain war winning capability for our fleet. “

In his operational tours, Aiena served as communications officer aboard USS Robert G. Bradley (FFG 49) where he deployed in support of counter-narcotics operations. He also served as force protection officer, weapons officer and main propulsion assistant aboard USS Leyte Gulf (CG 55) while deployed in support of the Global War on Terrorism.

During his shore tour, he served as a staff officer at the Center for Surface Combat Systems in Dahlgren, Va. An engineering duty officer since 2008, Aiena’s tours in acquisition began at NSWC Port Hueneme Division followed by a tour at PEO for Space Systems. Aiena – a **2010 graduate of the Naval Postgraduate School** – was also the National Deputy for the United States at the NATO Sea Sparrow Project Office while serving at PEO IWS.

The NAVSEA Warfare Centers provide research, development, test and evaluation for the future Navy as well as in-service engineering and logistics support for the operational naval forces.

NSWCDD Dam Neck Activity provides integrated training solutions; C6ISR (command, control, communication, computer, combat, cyber defense, intelligence, surveillance and reconnaissance) and cyber-engineering support; combat system element support; and system safety analysis to a variety of Navy and Department of Defense sponsors.

<https://www.navsea.navy.mil/Media/News/SavedNewsModule/Article/2398562/nswcdd-dam-neck-activity-change-of-command-highlights-teamwork-and-war-winning/>

[Return to Index](#)

