

Navy Warfare Development Command's

NEXT

Summer/Fall 2015
Volume 3, Number 2

Advancing Electromagnetic Maneuver Warfare



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MESSAGE FROM THE COMMANDER



*ADM Scott A. Stearney
NWDC Commander*

Welcome to the Summer/Fall 2015 edition of *NEXT* magazine. In these pages, you will read about the Navy's effort to exploit the electromagnetic spectrum (EMS) to gain warfighting advantage in antiaccess area denial (A2AD) environments. You will learn about Fleet Experimentation (FLEX), which is advancing weapons capabilities through the Laser Weapon System (LaWS) operational demonstration and how fleet input into such efforts continues through the fiscal year 2016 FLEX execution plan. You will also read about a capability demonstration for adaptive force packages for maritime command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) missions executed in partnership between the Stiletto Maritime Demonstration Program and the Chief of Naval Operations Rapid Innovation Cell (CRIC). We introduce the third generation of CRIC members, who are joining the effort to identify and develop emerging technologies for naval warfighting gaps. Bringing innovative ideas forward and contributing to their refinement is also the aim of Navy Warfare Development Command's (NWDC's) growing Navy Brightwork—a collaborative, idea-harvesting portal for those throughout the fleet who want to better the Navy. Rounding out this issue, we recognize the contribution of Navy Reservists to the NWDC mission and announce the launch of a classified quarterly electronic publication of the warfighting development community. Thank you for reading, and please let us know how we can continue to improve *NEXT* by taking the brief survey highlighted on the cover of this issue.

NWDC—“Forward for the Fleet”

MISSION

Navy Warfare Development Command develops and integrates innovative solutions to complex naval warfare challenges to enhance current and future warfighting capabilities.

VISION

Navy Warfare Development Command operates at the speed of the fleet to stay at the forefront of innovation, focused on nonmaterial solutions for the near-term and the future.

Seamlessly combining our core competencies—concepts, experimentation, modeling and simulation, doctrine, and lessons learned—NWDC generates cost-effective solutions that arm the warfighter with the tools needed to meet the global challenges of the maritime environment.

Our people, know-how, and technology work in unison to effectively move operational capability forward . . . for the fleet.

HISTORY

Naval Doctrine Command (NDC) was established in 1993 to provide the doctrinal foundation for naval forces to effectively contribute to joint and combined operations. NDC was disestablished and Navy Warfare Development Command was created as part of the Naval War College in 1998 at Newport, RI.

Navy Warfare Development Command was aligned under United States Fleet Forces Command (USFF) in 2002 in support of the Sea Trial process. As a result of base realignment and closure (BRAC) commission legislation, NWDC moved from Newport, RI, to Naval Station Norfolk, VA, in June 2010 (the BRAC move was fully completed September 30, 2010).

Commander, Navy Warfare Development Command was designated in 2008 as the Navy's Executive Agent for Concept Generation and Concept Development.

Navy Warfare Development Command is located aboard Naval Station Norfolk, VA. The headquarters facility meets current Leadership in Energy and Environmental Design (LEED) Green Building Rating System standards. The three-story, 84,849 square-foot building includes office space for more than 300 subject matter experts, including foreign liaison officers.

Navy Warfare Development Command headquarters is also the home of the Navy Center for Advanced Modeling and Simulation (NCAMS), a 10,000 square-foot, state-of-the-art modeling and simulation facility that supports the Navy Continuous Training Environment (NCTE), Experimentation, and Concept Generation and Concept Development. 

Navy Warfare Development Command's
NEXT

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On the Cover

CELEBES SEA (May 13, 2015)—An EA-18G Growler assigned to the Cougars of Electronic Attack Squadron 139 launches from the aircraft carrier USS Carl Vinson. The Carl Vinson and its embarked air wing, Carrier Air Wing 17, deployed to the U.S. 7th Fleet area of operations supporting security and stability in the Indo-Asia-Pacific region. (U.S. Navy photo by Mass Communication Specialist Second Class John Philip Wagner, Jr./Released)

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NEXT is published quarterly by Navy Warfare Development Command.

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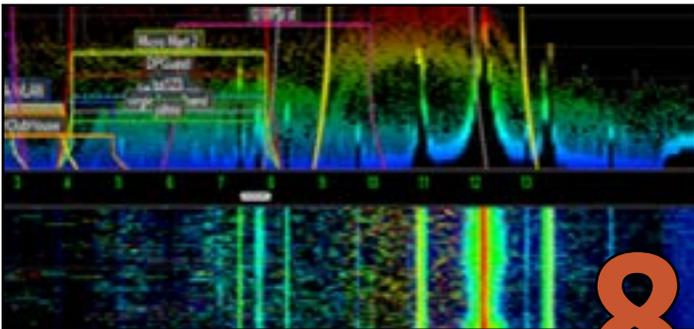
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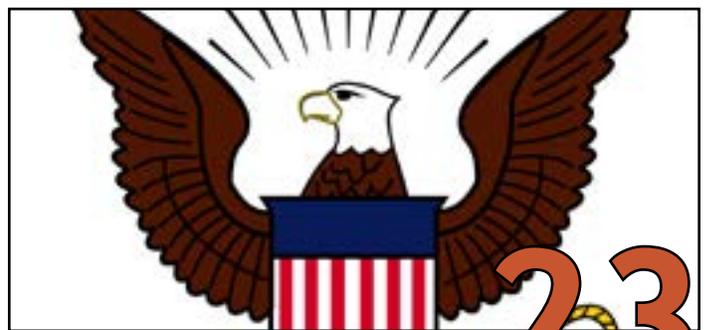
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U.S. 5TH FLEET AREA OF RESPONSIBILITY (May 23, 2013)—Electronics Technician Third Class Tanner Huston cleans an antenna on the lower yardarm on the mast aboard the guided-missile destroyer USS Stockdale. The Stockdale was deployed to the U.S. 5th Fleet area of responsibility promoting maritime security operations, theater security cooperation efforts, and support missions for Operation ENDURING FREEDOM. (U.S. Navy photo by Mass Communication Specialist Second Class David Hooper/Released)

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The Navy Doctrine Library System is the authoritative repository of all approved Navy doctrine as well as joint, multiservice, and Allied doctrine used by the Navy. NDLS also serves as the central forum for developing and updating Navy doctrine and contains personalization features that allow users to save doctrine information for future reference and comment on doctrine that requires correction or update. The NDLS database contains not only the doctrine itself, but also its status, sponsoring organization, and other relevant metadata.

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with **RADM Scott A. Stearney**

NEXT: Why is electromagnetic maneuver warfare (EMW) an important topic for the Navy today?

RADM Stearney: Recognition of the military importance of the electromagnetic spectrum (EMS) is not new. The Japanese Navy exploited the EMS in the decisive battle of Tsushima Strait in 1905 when they used radio technology to scout the Russian Fleet, less than a decade after Guglielmo Marconi's receipt of a British patent for wireless telegraphy. U.S. Navy exploitation and countermeasures in the EMS have grown exponentially with the pace of technology, but have often been applied within a single physical domain. Today, the EMS is part of all military operations and must be synchronized with actions in the cyberspace, air, land, and sea domains. The pervasiveness of the EMS in all domains presents vulnerabilities and opportunities for the Navy and for our potential adversaries. Increasingly sophisticated and capable threats necessitate that we develop advanced cross-domain warfighting capabilities to include those in the EMS. Understanding our signatures and vulnerabilities in the EMS while exploiting and countering enemy activities will enable all-domain access for naval forces in an antiaccess area denial environment. Chief of Naval Operations ADM Jonathan Greenert has made it clear how critical the understanding of EMW is for every member of the Navy. The Navy is establishing EMW as a core competency and an integral element of modern warfighting across the fleet.

NEXT: What is Navy Warfare Development Command's role in EMW?

RADM Stearney: ADM Phil Davidson, Commander, U.S. Fleet Forces Command, in his role as the executive agent for EMW, has delegated the task to Navy Warfare Development Command (NWDC) to bring the right minds together as an EMW Planning and Assessment Working Group (PAWG) from a broad range of organizations that have all been engaged in the EMS for the air, surface sea, undersea, and expeditionary communities. Information Dominance Forces Fleet Electronic Warfare Center (FEWC) Commander CAPT David Mundy serves as my deputy in helping lead the PAWG and Navy-wide support for the phased campaign plan that will move EMW from an idea to implementation.

NEXT: What is the EMW PAWG aiming to achieve?

RADM Stearney: The PAWG's effort has four major areas of emphasis. First, we are aligning Navy EMW planning and writing the EMW campaign plan. Second, we are advancing fleet understanding of EMW. NWDC's Concepts and Innovation Department authored an EMW concept in coordination with the PAWG which further illuminates EMW as an operational approach to create warfighting advantages through the EMS. We will be continuing to highlight EMW at all appropriate venues, as senior Navy leadership has been doing, and through publications like *NEXT* magazine and NWDC's *Advanced Warfighting Journal* on the SECRET Internet Protocol Router Network. NWDC will generate and update EMW-related doctrine and CONOPS. Ultimately, EMW must be considered

in coordination, collaboration, and planning in all 22 Navy warfare areas to achieve the seamless integration of communications, command and control, signals intelligence, electronic warfare, spectrum management, and cyberspace disciplines to deliver combined effects. To achieve this, future EMW planning will incorporate ongoing planning efforts, working groups, studies, training, experimentation, and exercises. Third, we are assessing what is being done now in the EMS to determine optimal application of current EMW-related capabilities, eliminate stovepipes and parallel efforts, and build upon existing initiatives in all warfare communities. Fourth, we'll identify future requirements to align warfighters, resource sponsors, research and development, and the acquisition community toward the achievement of EMW goals.

NEXT: How is EMW being worked across NWDC?

RADM Stearney: NWDC staff are members of the PAWG creating the EMW campaign plan. NWDC is also leading the concepts, doctrine and experimentation line of effort as part of the EMW campaign plan. We've written the EMW concept and are moving out to use experimentation to explore ideas, validate operating concepts, develop solutions, and influence capability development. Finally, we're systematically working through the Navy's doctrine library to ensure EMW is incorporated into the publications that serve as repositories for our warfighting DNA. EMW must be inherent in our Navy warfighting culture and will be a part of all our endeavors at NWDC as we continue to integrate innovative solutions to complex naval warfare challenges.



*By Steve
Rowe,
NWDC Concepts and Innovation
Department*

The Chief of Naval Operations (CNO) has tasked Navy Warfare Development Command (NWDC) to serve as the Navy's center for innovation, to drive the creation and sustainment of innovation across the Navy, and to promote Navy-wide innovation venues and collaboration tools¹. We do this through many venues, and the Navy Brightwork portal is one of those innovative networks connecting Navy ideas from across the fleet.

Navy Brightwork is a collaborative, idea-harvesting Web portal, supported by idea review and development processes and hosted within the Department of Defense's online collaborative community, milSuite. Navy Brightwork was created to collect promising ideas from all communities and all levels of seniority across the Navy enterprise. NWDC is particularly interested in providing an avenue to socialize ideas from deck plate Sailors, but anyone with a common access card (CAC) can post an idea or comment on ideas that are already there. Users can also add supporting documents, graphics, or videos to help illustrate the issue they are working on.

The goal is to tap the expertise of the "crowd," leveraging the diverse perspectives and experiences of many users to evaluate and possibly improve the original idea. Site users can comment, modify, refine, and/or vote up or down on Navy Brightwork submissions. The desired end state for Brightwork is a place where these interested parties log in regularly to check out ideas of interest; discuss those ideas; and form consensus recommendations on new procedures, technologies, and tactics.

"We hear all the time from Sailors, 'You know, I have a good idea, but I don't know where to send it.' We want to be a voice for Sailors. We're trying to provide operators the ability to speak," said Jamie Buchanan, Navy Brightwork site administrator. Buchanan explains that the hope is the site helps bridge a divide. "All we're trying to do is fill the gap, closing the distance between the actual operators—the ones who are using the stuff, and the technologists—the ones developing them, taking the best ideas and funneling them through votes and comments to help narrow them down to where we can send them on to an office that can and will do something about it."

Navy Brightwork complements other Navy crowdsourcing sites that currently exist or are starting to come online. Because Navy Brightwork is public key infrastructure-protected and CAC-enabled, it provides a place to discuss those ideas that are not classified but are too sensitive for the open Internet. For example, Navy Brightwork currently hosts ideas and supporting discussion on force protection capabilities that are not appropriate on a publicly accessible portal.

There have been approximately 200 individual ideas collected and opened for discussion on Navy Brightwork since January 2014 with 38 of these ideas being forwarded to type commanders and/or systems commanders for their consideration. All ideas received are given the opportunity to stand on their merit and are brought to the attention of higher-echelon commands.

To better facilitate the crowdsourcing process, Navy Brightwork embarked on an aggressive path to inform the broader Navy populace of its existence in September 2014. Since that time, group membership on the site has grown from 180 to 869, more than 400 percent. By building the membership base, NWDC hopes to ultimately establish an active knowledge bank of subject matter experts who can help steer and vet received ideas, transforming a currently manpower-intensive process of receiving and evaluating ideas into one that is self-sustained by site members. One of the beauties of Navy Brightwork is that contributors and participants may be as active (or inactive) as they wish. There is no obligation or commitment to join the group, but a common thread among participants is the desire to better the naval Service and the lives of those who support it.

The robust professional discussions that occur on Navy Brightwork go to the heart of the CNO's tasks for NWDC and support initiatives by SECNAV and other senior leaders by contributing to a reinvigorated culture of innovation in the Navy. In the words of CDR Jason Schwarzkopf, the NWDC Innovation Outreach lead, "The power of Brightwork is not just the collaboration; it's the power of networks that you derive from the collaboration. The networking element cannot be overstated."

Visit Navy Brightwork at <https://www.milsuite.mil/navybrightwork> and join the conversation. 

1. OPNAVINST 5401.9A, Navy Concept Generation and Concept Development Program.

NWDC

Advancing Electromagnetic Maneuver Warfare

By CDR Mark Coffman, NWDC Concepts Division

The electromagnetic-cyber environment is now so fundamental to military operations and so critical to our national interests that we must treat it as a warfighting domain on par with sea, air, land, and space. – A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER

And so begins the new electromagnetic maneuver warfare (EMW) concept, which blends fleet operations in space, cyberspace, and the electromagnetic spectrum (EMS) with advanced capabilities to create warfighting advantages.

What is EMW?

EMW is the U.S. Navy's warfighting approach to gain decisive military advantage in the EMS to enable freedom of action across all Navy mission areas. EMW is not a program or system. It is an approach we all must master to be able to use the EMS to understand and successfully operate in the future battlespace. EMW is about protecting our communications and employing all of our sensors and transmitters so that we maintain freedom of action and the access we need in all domains to win the fight.

Future adversaries will exploit the EMS for sensing, targeting, and delivery of fires, and to deny or degrade our ability to use the EMS. Naval forces must have the resilience to operate under the most hostile electromagnetic conditions.

Enhanced battlespace awareness and understanding provided by EMW will allow our Navy to more effectively operate with significantly reduced risk in a hotly contested antiaccess area denial (A2AD) battlespace. This awareness includes improving our understanding of the environment, our own force, and that of the adversary.

EMW will also provide our forces with the ability to seize the initiative. EMW means employing the full electromagnetic spectrum to assure commanders the ability to effectively command and control in future threat environments and to greatly increase our warfighting capabilities for both offensive and defensive operations. The goal is to synchronize operations in the EMS with operations in the sea, air, land, and cyberspace domains to defeat our adversaries' increasingly advanced capabilities. With improved battlespace awareness and assured command and control (C2), the force will be able to maneuver and integrate fire against A2AD capabilities.

Why is it important?

Since the end of the Cold War, the Navy has not been

seriously challenged in its ability to project power, establish sea control, and act to protect national interests, because of our relatively large number of ships and aircraft, our dominance of the electromagnetic spectrum, and our technological advantages. We are entering an era where our dominance of the seas may be challenged and cannot be assured. Adversary naval, air, and land forces equipped with advanced intelligence, surveillance, reconnaissance capabilities, and integrated long-range defenses will need to be neutralized to maintain freedom of the seas for all, and achieve national military objectives.

After the Cold War, and in the absence of a peer competitor, the Navy became increasingly dependent on the EMS to understand the battlespace and to command and control our forces. The growing challenge now facing the Navy

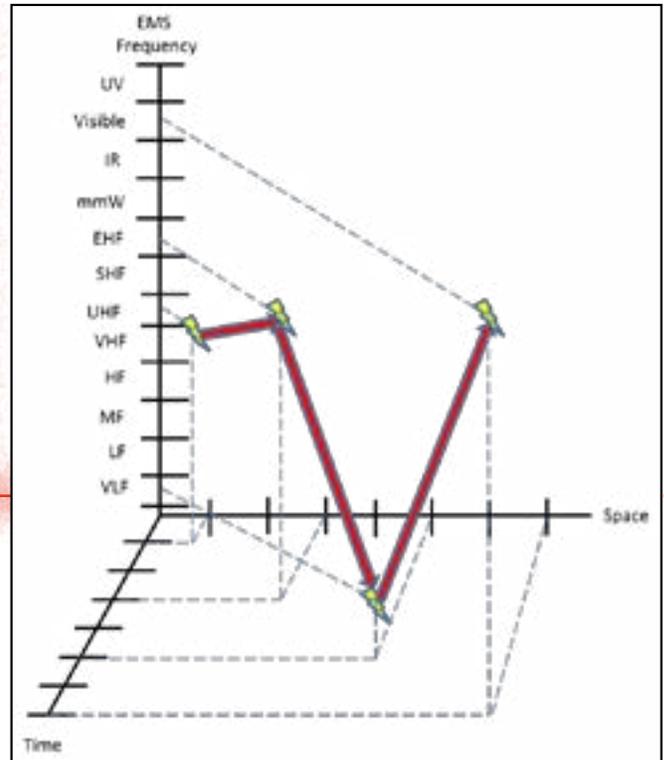


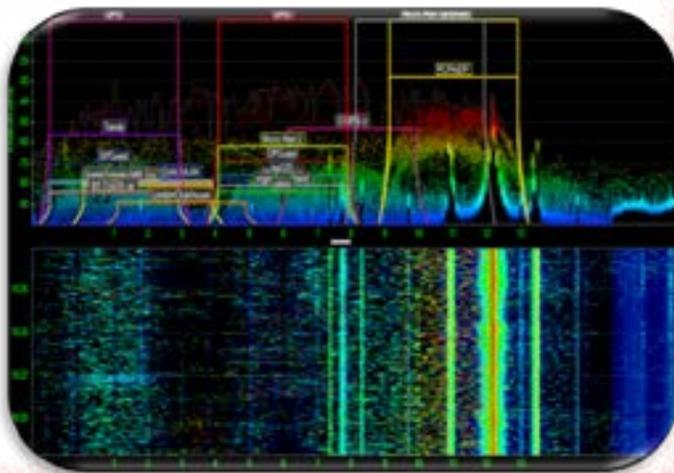
Illustration of electromagnetic spectrum maneuver. (U.S. Navy photo/Released)

demands we use the existing and emerging electromagnetic capabilities in innovative ways to assure all-domain access and to preserve freedom of action necessary for deterrence, sea control, and power projection operations.

Increases in governmental regulation and commercial usage impact the Navy's access to the EMS. We are now challenged to gain the critical EMS maneuver space necessary to achieve mission objectives given that there is less bandwidth and less access to the spectrum.

A fundamental paradigm shift is necessary for the Navy to effectively operate in the future. Tomorrow's victory will not be won with overwhelming mass and kinetic superiority, but rather through our ability to move unhindered within all domains. This has implications for everyone in the Navy from the deck plates and flight lines to the highest levels of Navy leadership. EMW must be taught at all levels of Navy training and considered in our acquisition process for all platforms and systems, in our doctrine and planning for operations, and in the day-to-day ways in which we do our jobs. Network access, social media, and even personal electronic equipment have implications that we must all understand to protect our people and forces.

The Navy also needs to improve the agility of electromagnetic-dependent systems to be effective in meeting the challenges from the sophisticated A2AD threats of the future. We can no longer afford to employ systems that work only on a single or limited number of frequencies or a small band of frequencies.



*Congested and contested electromagnetic spectrum.
(U.S. Navy photo/Released)*

What is Navy Warfare Development Command (NWDC) doing?

NWDC is undertaking a substantial number of initiatives in support of development of EMW capabilities. First, NWDC is developing the Navy concept for electromagnetic maneuver warfare. This concept describes EMW support to Navy



SEA OF CRETE (March 16, 2015)—Sailors participate in a combat training evolution aboard the guided-missile destroyer USS Laboon. The USS Laboon is conducting naval operations in the U.S. 6th Fleet area of responsibility in support of U.S. national security interests in Europe. (U.S. Navy photo by Mass Communication Specialist Third Class Desmond Parks/Released)

objectives that enable delivery of decisive effects in and through the EMS.

Second, NWDC, supported by a Planning and Assessment Working Group (PAWG) made up of fleet EMW stakeholders, is developing the EMW Campaign Plan, a comprehensive approach which synchronizes EMW actions needed to achieve the required 2020 EMW End State. The End State is for the Navy to gain decisive advantage in the EMS, achieving freedom of action in all Navy mission areas in support of theater warfighting requirements.

As lead for EMW development under United States Fleet Forces Command (USFF), NWDC is developing a governance model and charter that will enable USFF to effectively lead EMW for Chief of Naval Operations (CNO). EMW cuts across and up/down echelons. The governance model allows all voices to be heard and, equally importantly, it provides the means for USFF to efficiently synchronize and execute EMW actions.

What else is being done throughout the Navy?

EMW is not simply electronic warfare, it is a "whole-of-Navy" endeavor. While NWDC is leading this CNO-driven effort for USFF, the EMW executive agent, there is Navy-wide participation in this effort. The office of the CNO, systems commands, and the Naval Research Laboratory are planning, developing, and fielding material systems. Training commands and USFF are developing EMW training. Navy personnel commands will develop EMW career pipelines. NWDC is also leading an EMW experimentation campaign to test and evaluate systems, doctrine, and procedures to provide needed EMW capabilities.



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The way ahead

Implementation of the Fleet Forces EMW Campaign Plan will be the driving force behind evolution of EMW. Results will be measured, assessed, and adjusted. Alignment of materiel, training, and doctrine will be important, and it will be essential to synchronize systems delivery and integration with fleet training, doctrine, and experimentation to support the Optimized Fleet Response Plan. Every effort will be made to accelerate doctrine and tactics, techniques, and procedures development, in conjunction with training, to increase warfighter effectiveness.

What does the future hold?

Today, we radiate at will. Tomorrow, we will develop a force capable of effective, autonomous operations in an information-denied or -degraded environment. Individual platforms will be able to collect data on enemy signals

to inform the force while dialing up and down their own emissions to deceive or jam the adversary. The future also holds great promise for sensors and jammers on unmanned surface, undersea, and air systems.

What's in it for me?

All Navy warfighters and support force personnel must gain an appropriate understanding of EMW as it applies to their jobs and the potential vulnerabilities associated with the use of Navy and personal electronic equipment that they operate. The success of our force in accomplishing the assigned mission and the safety of your unit and your shipmates may well depend on each Service member's knowledge and actions. 



WATERS TO THE WEST OF THE KOREAN PENINSULA (March 10, 2015)—Operations Specialist Second Class British Fears, assigned to the Arleigh Burke-class guided-missile destroyer USS Michael Murphy, monitors helicopter operations from the combat information center while underway during exercise FOAL EAGLE 2015. FOAL EAGLE is a series of annual training events that are defense-oriented and designed to increase readiness and maintain stability on the Korean Peninsula while strengthening the Republic of Korea-U.S. alliance and promoting regional peace and stability of the Indo-Asia-Pacific region. (U.S. Navy photo by Mass Communication Specialist Second Class Daniel M. Young/Released)

NWDC Connects Fleet to Design FY16 Experiments

Navy Warfare Development Command (NWDC) hosted a fleetwide planning event March 31–April 2 to kick off development of the fiscal year (FY) 2016 Fleet Experimentation (FLEX) execution plan.

The FLEX program, managed by NWDC on behalf of U.S. Fleet Forces Command and U.S. Pacific Fleet, designs and executes collaborative, synchronized, and relevant experiment campaigns based on near-term fleet priorities and capability gaps.

“We have an extended but unified network of fleet commanders across the globe with similar challenges, and challenges unique to their areas of operations,” said NWDC Commander RADM Scott A. Stearney. “There are many organizations across the Navy conducting experiments with potential solutions to those challenges; we must be synchronized to ensure we’re driving toward the same campaign end states.”

The FLEX program continues to design war games and at-sea experiments that result in tangible products to improve warfighter capabilities—primarily doctrine, training, and materiel solutions.

“Experimentation results may include analytical reports to be shared across the Navy’s intellectual domain; products that highlight new actions fleet operators need to be taking now;

or new tactics, techniques, and procedures,” said Stearney.

The annual planning event was an opportunity for numbered fleets, warfighting development centers, and representatives from acquisition and science and technology communities to share experimentation plans and priorities.

Stakeholder organizations also discussed planned events that can be leveraged for future experimentation efforts, such as training exercises or transit periods.

CAPT Steve Faggert, NWDC’s lead for the FLEX program at the time of the event, reiterated the importance of connectedness.

“Ships’ steaming days are a valuable commodity, so it is extremely important to leverage fleet events whenever possible,” said Faggert. “That requires early coordination and support of senior leadership; not only to ensure our objectives don’t interfere with training events, but also to ensure there is enough dedicated time to complete successful experiments.”

NWDC develops and integrates innovative solutions to complex naval warfare challenges to enhance current and future warfighting capabilities. 



Navy Warfare Development Command (NWDC) launched the Advanced Warfighting Journal (AWJ), a classified electronic quarterly, in July 2015. Designed to improve collaboration, the AWJ contains articles from across the fleet and capability development communities of interest on topics impacting advanced warfighting.

The new, classified e-publication is hosted on the NWDC’s Navy Warfighting Development SECRET Internet Protocol Router Network portal: <https://portal.nwdc.navy.smil.mil/awd/awj/>

The AWJ was created to inform discussion and improve information sharing on a range of advanced warfighting topics. “The AWJ is a forum to discuss the pressing tactical and operational issues of the day,” said NWDC Operations department head CAPT Jim Loper. “It is a place for tacticians of all the different naval warfighting communities to present ideas and discuss both community-specific and cross-domain problems and solutions.”

Electromagnetic maneuver warfare is the theme of the inaugural AWJ. Subsequent issue themes and article submission due dates: Navy integrated fires, September 1, 2015; maritime command and control, November 2, 2015; and force integration, March 1, 2016.

“The AWJ also complements NWDC’s *NEXT* magazine that contains news and information about NWDC activities and unclassified articles on warfighting topics,” Loper said. “We welcome submissions to both publications.”

AWJ submissions (in an editable .doc or .docx format) or inquiries may be sent to NWDC_NRFK_AWJ@navy.smil.mil.

NEXT magazine submissions (.doc or .docx format) may be sent to NWDC_NRFK_PAO@navy.mil.

Please address questions about either publication to NWDC Public Affairs Officer Mr. Grant Sattler, (757) 341-4210 or alan.sattler@navy.mil. 

LAYING DOWN THE LAWs



*Laser Weapon System on board USS Ponce.
(U.S. Navy photo by John Williams/Released)*

Laser Weapon System (LaWS) Operational Demonstration

By CDR Marcus Beslin, Greg Gecowets, and Jennifer Wright,
NWDC Experimentation Department

While the AN/SEQ-3 (XN-1) Laser Weapon System (LaWS) may be cutting edge, this is not its first time afloat.

Flash back to BLACK DART 2012, when development team members aboard the guided-missile destroyer USS *Dewey* conducted the first successful engagement of an unmanned aerial vehicle (UAV) with a laser weapon. The highly successful and widely publicized results from the experiment piqued the interest of the Chief of Naval Operations (CNO), who subsequently expressed an interest in using LaWS to provide additional defensive capability to the afloat forward staging base (interim) USS *Ponce*.

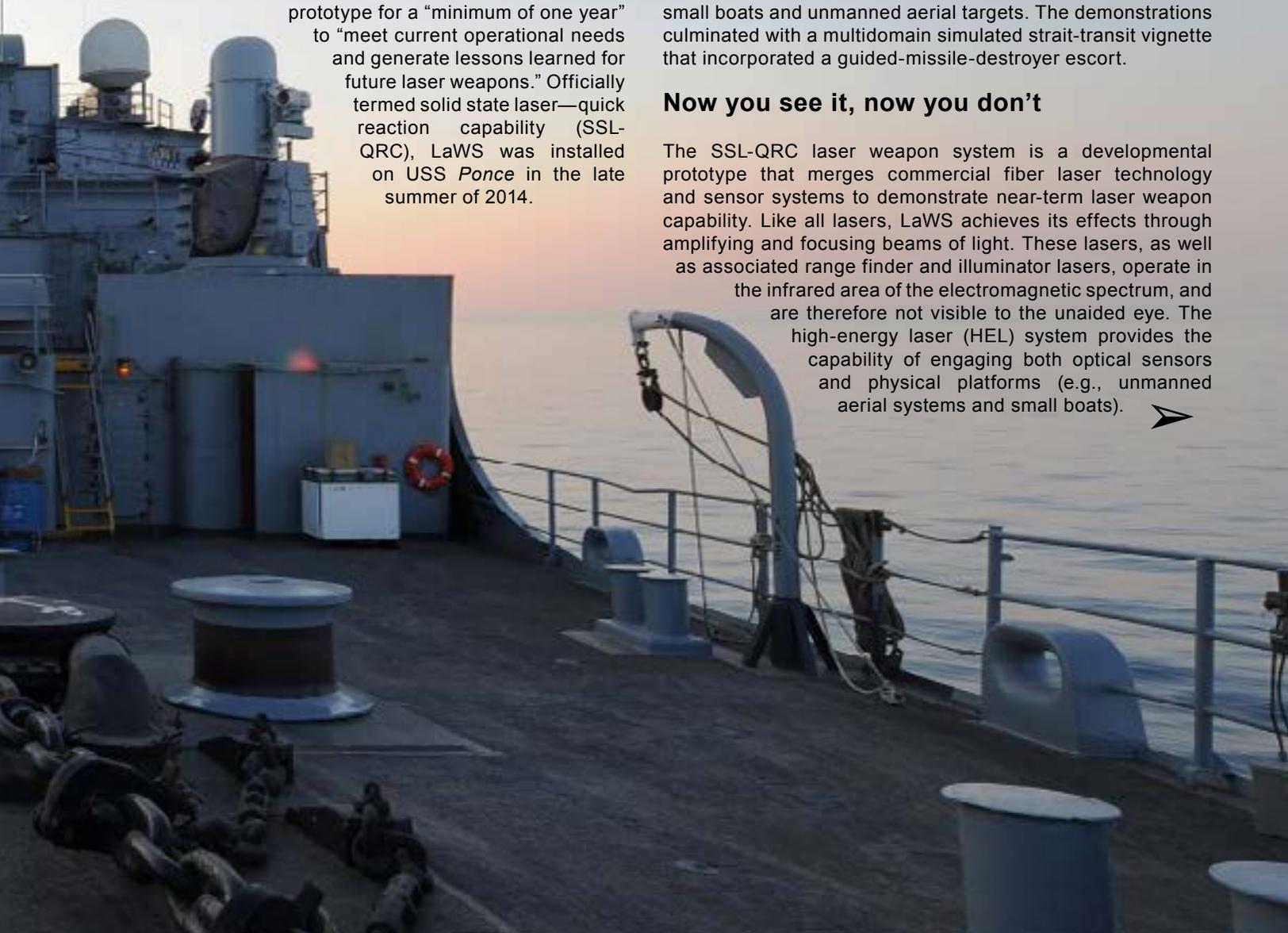
Shortly after, a weapons acceleration CNO executive board recommended installation of an upgraded prototype for a “minimum of one year” to “meet current operational needs and generate lessons learned for future laser weapons.” Officially termed solid state laser—quick reaction capability (SSL-QRC), LaWS was installed on USS *Ponce* in the late summer of 2014.

After the installation, Naval Surface Warfare Center Dahlgren Division (NSWCDD) conducted an underway System Operational Verification Test (SOVT) in order to ensure proper system calibration, integration, and safety functions. Additionally, multiple tracking and firing events were conducted to verify system underway operations and to provide the crew the opportunity to integrate LaWS into the ship’s defense systems.

With Navy Warfare Development Command (NWDC) leading the way, an operational demonstration was conducted in November 2014, with the support of U.S. Naval Forces Central Command, and in partnership with the Office of Naval Research (ONR), NSWCDD, Naval Sea Systems Command (NAVSEA), and Surface Tactical Development Group (STDG). High-energy laser engagements were conducted against unmanned small boats and unmanned aerial targets. The demonstrations culminated with a multidomain simulated strait-transit vignette that incorporated a guided-missile-destroyer escort.

Now you see it, now you don’t

The SSL-QRC laser weapon system is a developmental prototype that merges commercial fiber laser technology and sensor systems to demonstrate near-term laser weapon capability. Like all lasers, LaWS achieves its effects through amplifying and focusing beams of light. These lasers, as well as associated range finder and illuminator lasers, operate in the infrared area of the electromagnetic spectrum, and are therefore not visible to the unaided eye. The high-energy laser (HEL) system provides the capability of engaging both optical sensors and physical platforms (e.g., unmanned aerial systems and small boats). ➤



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LaWS Operational Demonstration

In order to support the SSL-QRC, the LaWS operational demonstration was designed based on the following objectives:

- ◆ Demonstrate solid state laser (SSL) operations against operationally representative targets in a realistic environment
- ◆ Inform development of high-energy laser for program-of-record deployment on surface combatants
- ◆ Inform development of an SSL tactical memorandum (TACMEMO) in support of SSL continued operations on board USS *Ponce*.

During the operational deployment period for USS *Ponce*, LaWS complemented existing sensors and weapons to provide additional ship self-defense against fast inshore attack craft (FIAC) and unmanned aircraft system (UAS)/UAV threats. The demonstration was designed for actual operators who used and validated experimental tactics, techniques, and procedures (TTP)¹. Demonstration “runs” were intended to document system capabilities and provide training opportunities for the LaWS detachment and other combat information center (CIC) personnel. At-sea runs took place November 13–20, 2014, in the Arabian Gulf.



ARABIAN GULF (November 15, 2014)—The USS *Ponce* conducts an operational demonstration of the Office of Naval Research-sponsored Laser Weapon System while deployed to the Arabian Gulf. (U.S. Navy photo by John F. Williams/Released)

The LaWS operational demonstration was structured to produce three types of deliverables: video and still imagery; input for a new U.S. Navy TACMEMO; and a final experiment report and consolidation of raw data, provided to ONR and NAVSEA. Video and still imagery from the demonstration have already been used by ONR to create and distribute public information regarding current and future Navy capabilities. In December 2014, CNN Tech (cnn.com/tech) featured an article, “Navy: New laser weapon works, ready for action” highlighting the LaWS operational demonstration with images and video taken during the event.

Employment and tactics information derived from the demonstration have been incorporated into the new TACMEMO 3-20.5-01, AN/SEQ-3(XN-1) Laser Weapon System (LaWS) Solid State Laser. Authored by NWDC, this new TACMEMO also incorporates Experimental Tactical Bulletin SUW-14-06.

Overall recommendations from the demonstration concluded that continued use of LaWS on USS *Ponce*, especially maximizing opportunities for live-fire exercises and training, will improve understanding of laser safety in an operational environment and provide important input for future system, concept, process, and TTP development. The data collection, analysis, and execution support provided to the highly successful and highly publicized LaWS operational demonstration was also the highlight of the FY14 Fleet Experimentation (FLEX) Execution Plan.

Detachment Training and Laser Safety

New weapon systems frequently require both additional manpower and specialized training. The LaWS detachment consisted of four personnel with in-depth knowledge of current Navy systems and laser-specific training. Similar to most detachments, LaWS operators completed comprehensive operations and maintenance training prior to deployment. There were two LaWS detachment groups on board during the operational demonstration: the initial group, who trained on the actual hardware and supported system testing prior to deployment, and the second group, who trained on simulators and relied heavily on “on-the-job training.” Both groups participated in live-fire events and provided input regarding realism and the effectiveness of system training. Laser safety is a significant responsibility for each LaWS detachment.

While targeting lasers have been in the fleet for years, the combination of high energy and nonvisible beam brings additional considerations to LaWS operations. Safety concerns for the demonstration were focused on three main areas: minimizing interference with operations, preventing operator mishaps, and carefully managing test assets to curate the highest level of operational risk management possible. Operational procedures on board USS *Ponce* now include use of eye protection, notification to embarked personnel, and evaluation of beam direction and reflection prior to engagement.

1. Experimental Tactical Bulletin SUW-14-06, AN/SEQ-3 (XN-1) Laser Weapon System (LaWS) Solid State Laser for USS PONCE Afloat Forward Staging Base (I) 15 (U), developed by STDG.

Significant Findings

In accordance with the demonstration plan, LaWS was able to acquire, identify, and track multiple contacts during multiple demonstration runs. It inflicted observable damage on designated targets, including burning segments of plywood target boards, inducing explosions in 107-mm warheads, and causing the loss of control of a UAV. Overall, the demonstration revealed strengths and weaknesses of LaWS in an operational environment. In addition to visibly demonstrating laser capabilities, the demonstration runs generated information suitable to update training and TTP, as well as refining requirements for future laser weapon systems.

Personnel interaction with LaWS has already generated various findings and lessons learned that are being used to shape and refine the SSL technology maturation and low-power module program efforts. Continued exposure to the operational maritime environment will provide directed energy program offices with additional opportunities to gather aging, wear, exposure, and employment data to ensure programs of record are suitable, reliable, and effective.

Additional details regarding the LaWS operational demonstration, final experiment report, or any FLEX event or initiative (past, present, or future) can be found on the FLEX Information Management System SECRET Internet Protocol Router Network Web site at: <https://fims.nwdc.navy.smil.mil>. 

Electronics Technician Chief James D. Dickinson, Jr., and Martin Drake, United States Central Command science advisor, operate the Laser Weapon System console. (U.S. Navy photo by Mass Communication Specialist Second Class D.M. Young/Released)

Employment and tactics information derived from the LaWS operational demonstration were analyzed and consolidated into a new Navy publication, TACMEMO 3-20.5-01, AN/SEQ-3(XN-1) Laser Weapon System (LaWS) Solid State Laser. This NWDC-authored TACMEMO also incorporates Experimental Tactical Bulletin SUW-14-06 and is available on the Navy Doctrine Library System Web site at: <https://ndls.nwdc.navy.mil>.





INNOVATION IN ACTION: ADAPTIVE FORCE PACKAGES

By Nicholas Malay, Naval Surface Warfare Center Carderock Division Public Affairs

The Stiletto Maritime Demonstration Program conducted a capability demonstration April 13–24, 2015, in support of the Chief of Naval Operations (CNO) to assess new concepts for command and control and multisensor fusion technologies for small vessels. The demonstration was executed through a partnership with the Chief of Naval Operations Rapid Innovation Cell (CRIC) off the Virginia coast near Joint Expeditionary Base Little Creek-Fort Story, in Virginia Beach, Virginia.

During the 2-week demonstration, system developers from private industry assembled their components into rapidly reconfigurable mission packages. These packages performed maritime command, control, communications, computers, intelligence, surveillance, and reconnaissance missions in a realistic maritime environment on board the Stiletto, a large, all-composite vessel used as a technology demonstration tool. The Stiletto program is a maritime demonstration platform that serves as a prototype demonstration tool for industry, Government laboratories, and academic institutions.

The Stiletto Maritime Demonstration Program is sponsored by the Rapid Reaction Technology Office under the Deputy Assistant Secretary of Defense for Emerging Capability & Prototyping to rapidly evaluate and mature emerging technologies in a realistic maritime environment. Engineers and technicians with expertise in maritime

technology from the Norfolk detachment of the Naval Surface Warfare Center, Carderock Division (NSWCCD) maintain the craft and operate the program.

Stiletto personnel partnered with the CRIC and coordinated with Navy Expeditionary Combat Command (NECC) to create the Adaptive Force Package Littoral Operations Center (AFP LOC), a configuration of maritime rapidly reconfigurable mission packages to perform joint and coalition maritime operations.

The AFP LOC provides command and control and multisource sensor fusion for small vessels and auxiliary maritime platforms that typically do not have these organic capabilities on board. Adaptive force packages are essentially the personnel and their associated analytical equipment, which can be tailored to meet the specific needs of a given mission.

The AFP LOC has three primary components: infrastructure (e.g., antenna cabling, patch panels, and power); backbone (e.g., computer systems, navigation, radar, and weapon systems); and sensor packages which are mission-specific and may be hardware- or software-based. All systems are modular and able to be carried on and set up on the AFP LOC infrastructure in less than 24 hours.

However, vessels typically do not have AFP LOC organic capabilities on board. Rob Tutton, NSWCCD engineer and manager of the Stiletto Maritime

Demonstration Program, said, “The electrical and security infrastructure must be built into the vessel in advance, which requires time and funding, but once the infrastructure is installed and approved, then the AFP LOC allows for easy installation and removal with minimal impact to the vessel’s normal operations.” According to Tutton, “I believe this is the true genius behind the AFP LOC that will provide savings and increased capability for the Navy that aligns with the CNO’s ‘payloads over platforms’ concept.”

The CRIC’s AFP LOC capability demonstration coincides with the Secretary of the Navy’s establishment of task force innovation (TFI) priorities to ensure emerging operational capabilities, such as adaptive force packages, have a clear and expedient path to the fleet. The task force includes subject matter experts who have been charged with developing a comprehensive innovation agenda for the U.S. Navy and U.S. Marine Corps.

The objectives were to demonstrate the ability to set up a rapidly reconfigurable operations center on a large surface craft capable of relaying information from other surface and air platforms and demonstrate the ability to communicate and transfer data with a land-based tactical operations center via line-of-sight radio and satellite networks.

“The C4ISR systems the Navy currently fields onboard ships are

expensive, slow to upgrade and install, and nearly impossible to reconfigure for a change in mission,” CRIC Project Lead LT Jason Knudson said. “As a result, we only field full C4ISR systems on our carriers, destroyers, amphibious ships, and cruisers. We asked the question, ‘How might we make C4ISR mission packages rapidly reconfigurable?’ We are determined to break out of the old model and take advantage of new technologies and platforms of opportunity.”

The program also provided the 25 participating industry partners an opportunity to receive immediate end-user feedback toward increasing technology readiness levels and access to direct operator input.

The capability demonstration was unique in that each vendor signed a cooperative research and development agreement (CRADA) with Carderock Division specifically developed for the Stiletto Maritime Demonstration Program. The capability demonstration’s requirements led Dr. Joseph Teter, NSWCCD director of technology transfer, and deputy Alyssa Littlestone to develop and execute a new type of limited-purpose CRADA allowing private industry to bring technology and expertise onto the

at-sea demonstration platform. Each agreement facilitates the exchange of the data collected between the Navy and the company. Since this is not a traditional acquisition process, these official agreements were necessary to allow the Government and private companies to work together on research and design.

“The vendors were encouraged to work with other vendors to rapidly integrate their individual technologies into a system of systems to overcome capability gaps,” said Tutton.

“At this time, we are forced to take our assets with capability and push them to where we need access. Often, this involves taking a multibillion-dollar investment off station when other platforms are available, but may not have the capability,” Knudson said. “We are saying push out the capability, not the platform. Make it man-portable. Make your platforms plug-and-play-ready. By doing this, we can make the CNO’s concept of ‘payloads over platforms’ a reality.”

With Navy Expeditionary Combatant Command and Navy Expeditionary Intelligence Command’s expertise in expeditionary operations, Knudson said he hopes to see NECC and NEIC,

among others, operating AFP LOC missions in theater by the end of the year.

Two scenarios were conducted daily to demonstrate how the AFP LOC may help optimize command and control capabilities: a high-value target interdiction scenario and a humanitarian assistance/disaster-relief scenario. To test rapid reconfigurability, the AFP LOC shifted between these drastically different mission sets within 1 hour.

In addition to the Stiletto vessel, an 11-meter rigid-hull inflatable boat and other Carderock Division-owned assets, such as jet skis, were used as needed depending on the requirements of the demonstration.

“For this demonstration, the CRIC was assessing adaptive force packages while our smaller craft simulated small-boat threats; CRIC and Stiletto personnel along with systems developers tracked items of interest from the Stiletto’s command information center,” Tutton said.

The next Stiletto maritime demonstration is scheduled for fall 2015. 

The Stiletto off the coast of Virginia Beach, Virginia, April 21, 2015, during a maritime demonstration. (U.S. Navy photo by Devin Pisner/Released)



Third Generation Selected for CNO Rapid Innovation Cell

Navy Warfare Development Command (NWDC) has selected the third-generation membership of the Chief of Naval Operations Rapid Innovation Cell (CRIC).

The CRIC provides junior leaders with an opportunity to identify and develop emerging technologies to rapidly field solutions to the Navy's most pressing challenges. The 13 new CRIC members represent the naval aviation, surface warfare, information dominance, supply and logistics, and human resources communities, and include 11 officers and 2 enlisted Sailors.

The new members are: LT Jeremy Arnott, a naval aviator serving as Phase I standardization officer with Training Squadron Twenty One (VT-21), in Kingsville, Texas; LT Timothy Bierbach, a P-8A Poseidon naval flight officer and squadron maritime tactics instructor with Patrol Squadron Sixteen (VP-16) in Jacksonville, Florida; LTJG Alexander Burkardt, an information professional officer assigned to Navy Information Operations Command in Fort Meade, Maryland; LT Eren Cataloglu, an information warfare officer attached as a military cyber liaison to the

U.S. Department of State's Bureau of Intelligence and Research in Washington, D.C.; Logistics Specialist Third Class Michael Crowley, a postal clerk aboard the USS *Dwight D. Eisenhower* in Norfolk, Virginia; LT Michael Glynn, a naval aviator instructor pilot with Training Squadron Twenty One (VT-21) in Kingsville, Texas; Logistics Specialist Second Class Robert Kennedy, custodian of postal effects aboard the USS *Dwight D. Eisenhower* in Norfolk, Virginia; LT William Langford, a human resources officer assigned to the Office of the Deputy Chief of Naval Operations (Manpower, Personnel, Training and Education) in Washington, D.C.; LT Michael Mabrey, a naval aviator serving as an F/A-18 instructor pilot and assistant training officer with Strike Fighter Squadron One Zero Six (VFA-106) at Naval Air Station Oceana, Virginia; Supply Corps Officer LCDR Christopher O'Connor, assigned to Navy Supply Systems Command N53 Strategic Plans and Communications in Mechanicsburg, Pennsylvania; LTJG Christopher O'Keefe, an intelligence officer assigned to the Office of the Chief of Naval Operations Surface Warfare Division (N96) Strategy and Alignment in Washington, D.C.; LT Daniel Walker, a human resources

Third-generation members of the Chief of Naval Operations Rapid Innovation Cell gather for team-building exercises during orientation April 14–16, 2015, in Norfolk, Virginia. (U.S. Navy photo/Released)



officer with Naval Service Training Command Continuous Process Improvement Office in Great Lakes, Illinois; and LCDR Jeffrey Wilcox, an information professional officer serving as flag communications officer with Commander, Carrier Strike Group Eleven in Everett, Washington.

Participation in the CRIC is a collateral duty. Members of the CRIC generally commit about four days a month outside their regular duties to participate in ideation events and manage their projects. Membership in the CRIC is project-based and averages 12–18 months, not to exceed 24 months. The project ideas presented by the new CRIC members are evaluated by a senior panel in a format similar to CNBC's "Shark Tank." The panel ranks and prioritizes the project proposals for allocation of resources. Navy Warfare Development Command supports CRIC members as incubators for their disruptive, nontraditional ideas,

enabling them to mature to a point where they can effectively demonstrate their values to the Navy.

These new CRIC members attended indoctrination April 14-16, 2015, at the Lockheed Martin Center for Innovation and at NWDC. Indoctrination provided the fundamental requirements and expectations associated with project management, NWDC staff interaction, and innovation ambassadorship. Members of the CRIC also engaged in CRIC enrichment activities to expand horizons, challenge paradigms, and develop professional knowledge, skills, and abilities to enable success as project managers and innovation advocates. They also learned methods for successful collaboration, cross-pollination, and fusion of ideas by establishing cohesive, effective networks within CRIC and with external partners. Established in 2012, the CRIC has examined the potential of dozens of ideas, validating the most promising for further development. 

Navy Lessons Learned



Navy Warfare Development Command, Navy Lessons Learned Directorate,
1528 Piersey St., BLDG O-27, Norfolk, VA 23511

NIPR: <https://www.jllis.mil>

SIPR: <https://www.jllis.smil/mil>

CaS: [http://\(your ship\)/nwdc/nll/nll.nsf](http://(your ship)/nwdc/nll/nll.nsf)

NAVY DOCTRINE UPDATE

The Navy Warfare Development Command (NWDC) publishes the Navy Doctrine Update to communicate changes to Navy doctrine and provide other useful doctrine information. The update provides a synopsis of recently published or updated publications, lists of any new joint and Allied publications, and Navy publications that are in development. Doctrine expresses operational institutional wisdom. The Navy produces doctrine to guide the employment of forces during operations and serve as the basis for training and professional military education.

NWDC functions as the overall approval authority of Navy doctrine publications, with designated primary review authorities (PRAs) functioning as the leads in the development and maintenance of each specific publication. The validity and usefulness of NWPs, NTPPs, and NTRPs depend fundamentally on the quality of the processes for:

1. Developing new publications
2. Reviewing and updating existing ones
3. Recommending cancellation of outdated publications.

Doctrine requires frequent input from those who use it, and all Sailors play a role in developing doctrine and keeping it current. Official and unofficial recommendations and comments may also be submitted via the publication-commenting feature of the Navy Doctrine Library System:

NIPRNET: <https://ndls.nwdc.navy.mil>

SIPRNET: <https://ndls.nwdc.navy.smil.mil>

Comments and recommendations may also be e-mailed to NWDC_NRFK_DOCTRINE@navy.mil or mailed to Commander, Navy Warfare Development Command, ATTN: Doctrine, 1528 Piersey Street, BLDG O-27, Norfolk, VA 23511-2723.

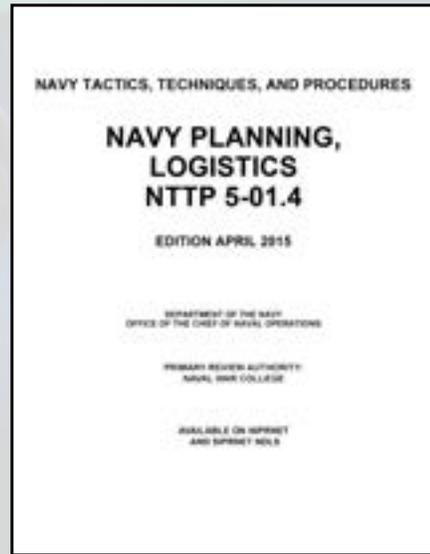
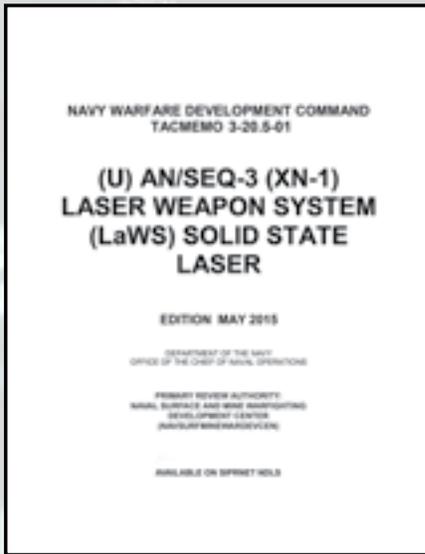
Points of contact for this update are CDR Ray Dumont at raymond.n.dumont@navy.mil and CDR Tom Singleton at thomas.singleton@navy.mil.



NTPP 2-01.3 supports planners and warfighters by establishing tactics, techniques, and procedures for coordination and oversight of surveillance, reconnaissance, and processing, exploitation, and dissemination operations. It discusses opportunities for intelligence, surveillance, and reconnaissance optimization during the operations process, and discusses how to provide feedback to supporting assets to optimize operations.

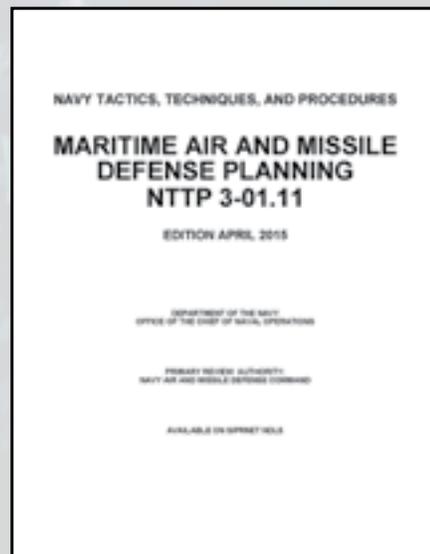
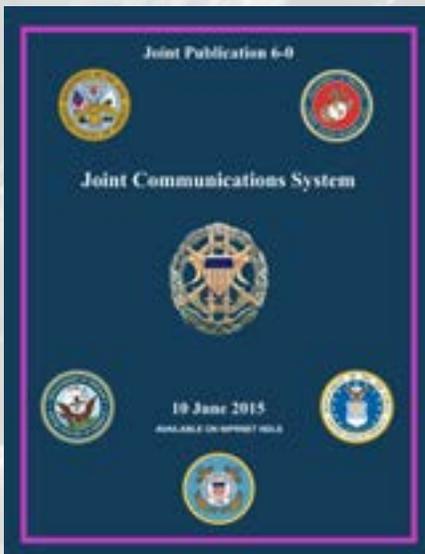


NTPP 3-56.4 is a single-source, descriptive reference guide to facilitate multi-Service coordination, integration, and control of airspace during exercises, contingencies, and other operations where more than one Service component must share the airspace for operational use. This publication supports planners and warfighters by establishing tactics, techniques, and procedures for planning, coordinating, and executing airspace control in a multi-Service environment. This April 2015 edition supersedes FM 3-52.1/ATTP 3-2.78 dated May 2009.



TM 3-20.5-01 provides tactics, techniques, and procedures for the employment of the AN/SEQ-3(XN-1) Laser Weapon System solid state laser. It is for use by U.S. Navy ships when countering fast inshore attack craft and unmanned aircraft system threats. It supersedes Surface Tactical Development Group Experimental Tactical Bulletin SUW-14-06.

NTTP 5-01.4 provides guidance and procedures for operational-level logistics planning in a deliberate or crisis-action environment. This publication is aligned with current joint, Navy, and Marine Corps planning doctrine and provides a logistics perspective suitable for planning operations across the range of military operations. It supplements NWP 5-01, Navy Planning.



JP 6-0 is the keystone document for the communications system series of publications. It provides the doctrinal foundation for communications system support to joint operations.

This June 2015 edition supersedes the June 2010 edition and updates terminology, information on national security, and other communications considerations.

NTTP 3-01.11 provides planners supporting a Navy component command or Navy fleet commander serving in the capacity of a joint forces maritime component commander with the principles and processes for conducting operational-level planning. This information is useful in supporting the development of air and missile defense concept of operations, supporting plans, orders, operation general matter and operational tasks messages, and other planning documents.

NAVY DOCTRINE UPDATE

NAVY DOCTRINE IN DEVELOPMENT

Draft Navy doctrine publications may be accessed on NDLS by changing Browse Options to include their display. All registered NDLS users can view and provide comments on all draft and approved publications.

NTTP 1-10.1, Force Tactical Action Officer (FTAO)
(PRA: Tactical Training Group Atlantic)

NTTP 1-10.3, Navy Combat Identification
(PRA: Navy Warfare Development Command)

NTTP 2-02.1, Strike Group and Unit Level Cryptologic Operations
(PRA: Navy Information Operations Command Norfolk)

NTTP 3-01.5, Aegis Core Tactics
(PRA: NAVSURFMINEWARDEVCCEN)

NTTP 3-01.8, Integrated Air Defense Systems
(PRA: Air Land Sea Applications Center)

NWP 3-02.1.4M, Defense of the Amphibious Task Force
(PRA: Expeditionary Strike Group Two)

NTTP 3-01.42, Joint Suppression of Enemy Air Defense and Antiradiation Missile Employment (JSEAD/ARMJ)
(PRA: Air Land Sea Applications Center)

NTTP 3-02.14, Naval Beach Group Operations
(PRA: Naval Beach Group One and Two)

NTTP 3-02.2, Supporting Arms Coordination in Amphibious Operations (PRA: NAVSURFMINEWARDEVCCEN)

NTTP 3-02.4.1, Unexploded Ordnance
(PRA: Air Land Sea Applications Center)

NTTP 3-02.5, Explosive Ordnance Disposal
(PRA: Air Land Sea Applications Center)

NTTP 3-02.18, Airfield Opening
(PRA: Air Land Sea Applications Center)

NWP 3-07.2, Navy Doctrine for Antiterrorism/Force Protection (PRA: U.S. Fleet Forces Command)

NWP 3-07.20, Navy Support to Security Cooperation
(PRA: Navy Warfare Development Command)

NTTP 3-10.1, Riverine Operations
(PRA: Navy Expeditionary Combat Command)

NTTP 3-10.3, Navy Expeditionary Logistics Support Operations (PRA: Navy Expeditionary Combat Command)

NTRP 3-11.32, CBRN Threats and Hazards
(PRA: U.S. Army Chemical School)

NTTP 3-11.37, CBRN Passive Defense
(PRA: U.S. Army Chemical School)

NTTP 3-13.1.1, Submarine Information Operations
(PRA: Commander Submarine Development Squadron Twelve)

NTTP 3-13.2, Navy Information Operations Warfare Commander's Manual (PRA: Navy Information Operations Command Norfolk)

NTTP 3-13.6, Countering Intelligence, Surveillance, Reconnaissance, and Targeting (PRA: Navy Information Operations Command Norfolk)

NTTP 3-15.1, Naval Mining
(PRA: NAVSURFMINEWARDEVCCEN)

NTTP 3-15.22 Vol I, Airborne Mine Countermeasures (AMCM) (PRA: Airborne Mine Countermeasures Weapon Systems Training School)

NTTP 3-15.23, Underwater Mine Countermeasures
(PRA: Navy Expeditionary Combat Command)

NTRP 3-20.6.22M, WMEC 270 Class Tactical Pub
(PRA: USCG FORCECOM)

NTRP 3-20.6.23M, WHEC 378 Class Tactical Pub
(PRA: USCG FORCECOM)

NTRP 3-20.6.28M, WPC 154 Class Tactical Pub
(PRA: USCG FORCECOM)

NWP 3-20.32, Surface Ship Gunnery
(PRA: NAVSURFMINEWARDEVCCEN)

NTRP 3-20.6.26, LCS Class Tactical Publication
(PRA: NAVSURFMINEWARDEVCCEN)

NTRP 3-20.6.33, LHA 6 (Flight 0) Class Tactical Publication
(PRA: NAVSURFMINEWARDEVCCEN)

NTTP 3-20.8, Multi-Service Tactics, Techniques, and Procedures for Air Operations in Maritime Surface Warfare (AOMSW) (PRA: Air Land Sea Applications Center)

NTTP 3-21.22, Submarine Sonar Search Manual
(PRA: Commander Submarine Development Squadron Twelve)

NTRP 3-51.1, Electromagnetic Spectrum Operations Afloat
(PRA: Navy Information Operations Command Norfolk)

NTTP 3-55.13, Air to Surface Radar Employment
(PRA: Air Land Sea Applications Center)

NWP 3-56, Composite Warfare Commander
(PRA: Commander Pacific Fleet)

NTTP 3-57.2, Defense Support of Civil Authorities
(PRA: Air Land Sea Applications Center)

NTTP 4-02.7, Health Services Support in CBRN Environment
(PRA: U.S. Army Medical Department Center and School)

NTRP 4-02.22, Treatment of Chemical Weapons Agent Casualties (PRA: U.S. Army Medical Department Center and School)

NTTP 5-01.3, Operational Assessment (PRA: Air Land Sea Applications Center)

NAVY RESERVISTS: 'THE RIGHT SKILLS FOR THE TASK' AT NWDC

*By Grant Sattler,
NWDC Public Affairs*

As the U.S. Navy Reserve celebrates its centennial through 2015, Navy Reserve officers and enlisted personnel are impacting the future as they contribute to the Navy Warfare Development Command (NWDC) mission to develop and integrate innovative solutions to complex naval warfare challenges.

"Navy Reservists are integral to the NWDC team," said NWDC Commander RADM Scott A. Stearney. "NWDC's Reserve det provides this command a deep bench, supporting our core mission capabilities whenever called."

Navy Reserve NWDC Detachment 101 sources personnel with specialized backgrounds to enable NWDC to surge military manpower to participate in limited-duration events, increasing the command's interactions with the fleet while permitting active component military staff to remain on other assigned tasks. Last year, the detachment provided the command with more than 3 man-years of support through normal monthly weekend drill days, Reservists' annual active-duty training, extra funded active-duty days, individual involuntary mobilization to active duty, and voluntary active-duty orders for specific missions.

Coordinating that Reserve support is the job of Navy Reserve NWDC Detachment 101 Operations Officer CDR Michael Araojo.

"If NWDC is seeking someone with specific experience to participate in a working group, we put a call out to unit members. If we are not able to support a requirement with detachment personnel, we can tap into the entire Navy Reserve to obtain individuals with the right skills for the task," he said.

As a surface warfare officer, Navy Reservist LCDR Sean Marvin recently participated as a member of a working group in the development of a new tactics, techniques, and procedures (TTP) product. A Navy Reservist since 2009, Marvin completed his active-duty service with an assignment at NWDC in Newport, Rhode Island, before the command moved to Naval Station Norfolk. In addition to enjoying work with the Navy, Reserve duty allows him flexibility to contribute to the family income and raise children while his wife continues an active-duty Navy career.

The effort the Navy Reserve makes to provide the right individual is a great benefit, said NWDC Experimentation Action Officer LCDR Rob Haulenbeek following a recent war game. "In short, it was invaluable based primarily on

the experience level and security clearance possessed by the Reservist supporting our game. Without this specific Reservist, we would have had to retask an active-duty officer to perform data collection," he said.

Fleet experimentation is an area where Reserve support is very active. For example, support of TRIDENT WARRIOR 2014, experimentation with land-based and shipboard Reserve officers-in-charge, experimental initiative data collectors, and database feedback input totaled 214 man-days across the Navy Reserve.

Last year, the detachment also helped NWDC with tasks ranging from providing physical-security watch stander and command duty officer support to supporting Doctrine review and reconciliation of Allied tactical publications, concepts of operation, Navy TTP, and various other publications.

Araojo said a liaison from the detachment is associated with each NWDC department to coordinate Reserve support. He said there are ancillary benefits derived by employing Navy Reserve members.

"In a way, bringing Navy Reservists on board leverages expertise from the private sector. We bring experience from outside the Navy box—a different way of seeing things," Araojo said. "I am happy to be supporting NWDC as my background as an analyst is a good fit with N5L (Lessons Learned Analysis)."

As his annual active-duty training, Araojo assisted with post-deployment brief meta analysis to help identify recurring themes, capability gaps, and best practices that were presented in post-deployment briefs from carrier strike groups, amphibious ready groups, and independent deployers. Navy Reservist CDR Elizabeth Allee continued the task when she arrived for her annual training.

"The Navy has done more for me than I could ever have done for the Navy," said Allee, who has served 12 years as a Navy Reservist after 6 years on active duty, and is now pursuing a post-graduate degree. Not only has Navy service taken her to new places and introduced her to new people, she said, but the Navy Reserve continues to present opportunities to learn.

In addition to the future retirement benefit and flexible career options, Navy Reserve duty also keeps Sailors connected. "Reserve duty keeps me close to the fleet and the issues important to the Navy," Allee said. "Staying ready in case called upon is a big part of it, but annual training also keeps me close to the world that is part of my personal identity and in that respect, NWDC is a great place to serve." 

GOT A BRIGHT IDEA?

Bring it
to the Navy's
marketplace
for great ideas

NAVY

BRIGHTWORK

NIPR: <https://www.milsuite.mil/navybrightwork>

SIPR: <http://www.intelink.sgov.gov/blogs/brightwork>

