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Washington, DC

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RDML John Palmer
Commander
DLA Land and Maritime Defense Supply Center

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BROADENING FORCE REACH THROUGH CREWLESS COMPETENCY
The Pentagon has issued a directive indicating unmanned surface vessel (USV) capability be a key component of future U.S. Navy surface fleet proficiency. Large USVs (LUSVs) will be a part of this portfolio.
By PEO Unmanned and Small Combatants

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Commander
U.S. Naval Sea Systems Command
Washington, DC

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Cover: The amphibious assault ship USS Bataan (LHD 5) underway in the Atlantic Ocean during a composite training unit exercise (COMPTUEX) with the Bataan Amphibious Ready Group and 26th Marine Expeditionary Unit. (U.S. Navy photo by MCS 2nd Class Zachary A. Anderson)
With a new decade upon us, lessons learned from the previous serve to prepare our nation for new threat evolutions. Facing this reality across three quarters of the globe, the U.S. Navy projects America’s power where no other security force can. The Annual 2020 issue of Naval Power & Force Projection (NP&FP) offers insight into a wide breadth of the maritime defense domain. From surface to air, the critical resupply of equipment essential to conflict deterrence must happen before real-world conflict demands it.

In this edition of NP&FP, exclusive interviews with Commander, U.S. Naval Sea Systems Command (NAVSEA) VADM Tom Moore, and Commander, U.S. Naval Air Systems Command (NAVAIR) VADM Dean Peters, provide a look at challenges singular to both sea and air zones of operation: ensuring materiel readiness through systems delivery and sustainment, and promoting capabilities development through proactively-planned investment. From ships to cybersecurity, maintaining the highest standards in hardware and software performance supporting NAVSEA surface and undersea missions is VADM Moore’s top priority. Keeping VADM Peters up at night is continual improvement in Fleet Readiness Center (FRC) production and the forecasted delivery of parts essential to day-to-day NAVAIR operations.

From a supply chain perspective, no agency is more in tune with the needs of combat logistics support than DLA Land and Maritime (L&M). A subordinate command of the Defense Logistics Agency (DLA), DLA L&M, commanded by RDML John Palmer, is leveraging inter-service collaboration with the goal of improving operational readiness of the nation’s combat equipment. Tasked with overseeing roughly 2500 employees responsible for the delivery of more than $4 billion worth of repair parts annually to the Joint Services is no small task. DLA is currently working with U.S. Transportation Command (USTRANSCOM) to establish processes aimed at expanding parts support to the F-35 Lightning II Joint Strike Fighter.

Finally, we examine the Navy’s Ghost Fleet Overlord Unmanned Surface Vessel (USV) effort. Overseen by Program Executive Office Unmanned and Surface Combatants (PEO USC), efforts are moving forward to field a class of Large Unmanned Surface Vessels (LUSVs), a key enabler of the Navy’s distributed maritime operations concept, which includes being able to forward deploy and team with manned combatants, or augment battle groups.

We welcome any comments and suggestions. Thank you for the continued readership!
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The Pentagon has issued a directive indicating unmanned surface vessel (USV) capability be a key component of future U.S. Navy surface fleet proficiency. Large USVs (LUSVs) will be a part of this effort.

By Program Executive Office Unmanned and Small Combatants

LUSV Evolution

The 2018 National Defense Strategy states that unmanned maritime systems and advanced technologies are demanded in response to projected threats and the Great Power Competition. The ability of peer competitors to deny naval forces freedom of movement drives the need for more ships with increased firepower, distributed over a wider ocean area. Unmanned Surface Vessels (USVs), at a fraction of the cost of manned combatants, provide this additional capacity.

A Sailor and civilian technicians monitor an unmanned surface vehicle (USV), after it was first-time launched and recovered by Military Sealift Command's expeditionary sea base, USNS Hershel "Woody" Williams (T-ESB 4), into the Chesapeake Bay this past September. The USV is a mine countermeasure platform and future large USVs (LUSVs) with similar roles may incorporate other offensive weapons capabilities for greater force projection. (U.S. Navy photo by Bill Mesta/Released)
the Fleet’s anti-surface and strike capability and capacity. LUSVs will be designed to give the Navy increased capability and necessary capacity at lower projected procurement and sustainment costs, reduce risk to Sailors, and increase readiness.

The first block of LUSVs are focused on affordably expanding afloat strike and anti-surface warfare capacity in support of manned surface combatants. LUSVs are a key enabler of the Navy’s distributed maritime operations concept, which includes being able to forward deploy and team with manned combatants, or augment battle groups.

Design through Research and Test

The Navy is leveraging accomplishments of the U.S. Defense Advanced Research Projects Agency (DARPA), Anti-Submarine Warfare (ASW) Continuous Trail Unmanned Vessel (CTUV), the Office of Naval Research (ONR) Medium Displacement Unmanned Surface Vehicle (MDUSV) Sea Hunter, and the Secretary of Defense Strategic Capabilities Office Ghost Fleet Overlord project to inform and accelerate the LUSV project.

These agencies made early investments in autonomy, endurance, command and control, and payload development, and the results are directly informing the autonomy for these ship designs and ability to upgrade as technology advances. Investment in continued testing and experimentation will improve these efforts. The LUSV effort is utilizing current Navy warfare system programs of record that have been adapted to enable remote monitoring and operational control from either an afloat or ashore command and control point.

In order to characterize hull, mechanical and electrical (HM&E) reliability and ensure autonomous navigation, the Navy needs thousands of hours of testing. Additionally, the Navy needs to develop the man-machine teaming operations, maintenance concepts, and cyber resiliency which require numbers of operational prototypes. These prototypes need to operate on common military command and control networks in order to be relevant in an operational environment.

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EXPANDING THE ADVANTAGE TO PRESERVE PEACE

Vice Admiral Thomas Moore became the 44th commander of Naval Sea Systems Command (NAVSEA) on June 10, 2016. As NAVSEA commander, he oversees a global workforce of more than 83,000 military and civilian personnel responsible for the development, delivery and maintenance of the Navy’s ships, submarines and systems.

As a surface nuclear trained officer for 13 years, VADM Moore served in various operational and engineering billets aboard USS South Carolina (CGN 37) as machinery division officer, reactor training assistant and electrical officer; USS Virginia (CGN 38) as main propulsion assistant; USS Conyngham (DDG 17) as weapons officer, and USS Enterprise (CVN 65) as the #1 plant station officer responsible for the de-fueling, refueling and testing of the ship’s two lead reactor plants during her 1991-1994 refueling complex overhaul (RCOH). Additionally, ashore he served two years as a company officer at the United States Naval Academy. In 1994, he was selected for lateral transfer to the engineering duty officer community where he served in various staff engineering, maintenance, technical and program management positions including: carrier overhaul project officer at the Supervisor of Shipbuilding, Newport News, Virginia, where he led the overhaul of the USS Enterprise (CVN 65), USS Theodore Roosevelt (CVN 71) and the first year of the USS Nimitz (CVN 68) RCOH; assistant program manager for In-Service Aircraft Carriers (PMS 312) in the office of the Program Executive Officer, Aircraft Carriers, Aircraft Carrier Hull, Mechanical and Electrical (HM&E) requirements officer on the staff of the chief of naval operations Air Warfare Division (OPNAV N78); and, five years in command as the Major Program manager for In-Service Aircraft Carriers (PMS 312) where he was responsible for the new construction of the George H.W. Bush (CVN 77), the RCOH of the USS Dwight D. Eisenhower (CVN 69) and the USS Carl Vinson (CVN 70) and the life cycle management of all In-Service Aircraft Carriers. In April 2008, he reported to the staff of the Chief of Naval Operations as the deputy director, Fleet Readiness, Office of the Chief of Naval Operations (OPNAV N43). From May 2010 to July 2011, he served as the director, Fleet Readiness, OPNAV N43. Moore commanded the Program Executive Office for Aircraft Carriers from August 11, 2011 to June 1, 2016. Over this five year period, he led the largest ship acquisition program in the US Navy portfolio; was responsible for designing, building, testing and delivering Ford-class carriers; led the Navy’s first-ever inactivation of a nuclear-powered aircraft carrier, USS Enterprise (CVN-65); and was the lead in the US-India Joint Working Group Aircraft Carrier Technology Cooperation.

VADM Thomas Moore
Commander
U.S. Naval Sea Systems Command
Washington, DC

VADM Moore, NAVSEA Commander, spoke recently with NP&FP, regarding focus areas for NAVSEA heading into 2020 and ways the command is addressing current and future challenges.

NP&FP: What are some of NAVSEA’s current priorities?

VADM Moore: NAVSEA's priorities are threefold – on-time delivery of ships and submarines to the fleet, improve the warfighting capability of our ships and systems, and cybersecurity. These align with Chief of Naval Operations Mike Gilday’s top priorities [Warfighting, Warfighter, Building the Next Navy] and align directly with Navy and national strategies outlined in the National Security Strategy and National Defense Strategy. With 80 percent of the world’s population living in coastal regions; 90 percent of our commerce relying on open sea lanes for successful global trade; and 99 percent of our internet traffic.
traveling through undersea cables, the national defense and economic prosperity of our nation are facilitated only through a strong and capable Navy.

NAVSEA's fundamental responsibility is provide our fleet commanders with the capabilities required to deter aggression, defeat our enemies in combat, and provide humanitarian support in times of crisis. To execute the Navy's mission, we need forward-deployed ships and we need to be on-station around the globe 24-7-365 with the requisite capabilities, lethality, and mobility.

That's why NAVSEA's number one mission is the on-time delivery of ships and submarines. In 1992, we had a fleet of about 600 ships and of that number about 100 were deployed at any one time. Today, we have 290 ships of which about 80 are deployed or underway on any given day – so the demand signal is still high, but we have fewer ships at our disposal. The fleet relies on us to deliver ships, either from new construction or from their maintenance periods with a reliable level of capability and quality so those assets are delivered and ready to relieve those ships returning from deployment and, in turn, making space for the next ship in line. At any given time, approximately 40 percent of the Navy's ships and submarines are under NAVSEA's control, undergoing either short- or long-term maintenance. Optimizing our planning, our workflows, and our supply chains are primary areas of focus, but increasing the training, innovation and competence of our workforce and optimizing our contracting and collaboration with our industry partners are areas of critical importance in meeting this goal.

NAVSEA's second priority speaks directly to the capability of the fleet and that is to increase the warfighting capability of our ships and systems. That means increasing the rate at which we deliver new, more capable ships; it means modernizing the ships we already have to improve their capability and extend their service lives; and it means harnessing emerging reliable and secure artificial intelligence-enabled tools. Increasing the training and sophistication of our Sailors and our industry partners goes hand-in-hand with this priority, and enables us to capture and incorporate innovations and new capabilities, increase the ship and system reliabilities and to take advantage of state-of-the-art model-based engineering in our future designs.

Many of our current threats come not from the sea or the air, but through our increasingly complex cyber environment. Our adversaries employ increasingly complex techniques to deny, disrupt, disable, or cause physical and economic damage to U.S. infrastructure and capabilities via electronic attacks. Our priority is to protect the systems we deliver from cyberattacks and to ensure we maintain the ability to detect, restore and restore those systems to their full capability. To achieve this, we are increasing our collective knowledge of cybersecurity threats and tools, while integrating affordable cybersecurity solutions into current and future products.

NP&FP: How are you addressing readiness?

VADM Moore: With roughly 40 percent of the battleforce undergoing maintenance at any one time, the primary way NAVSEA addresses readiness is by delivering these ships on-time and ready for national tasking.

NAVSEA conducts most of the maintenance on our aircraft carriers and submarines at one of our four public Naval Shipyards. Our surface ships receive maintenance at private shipyards that are overseen by NAVSEA's Regional Maintenance Centers. Since 2010, we've seen the workload in our Naval Shipyards grow by 25 percent. To meet that demand, NAVSEA grew its workforce from 27,368 full time employees in 2010 to 36,100 in 2018 – which was actually one year earlier than we expected. While the workforce has expanded to meet the workload, retirements and new hires resulted in an inexperienced workforce where we expected. While the workforce has expanded to meet the workload, retirements and new hires resulted in an inexperienced workforce where 50 percent of the workforce has less than five years of experience, a significant challenge to overcome because of the complex nature of the work. To address this challenge NAVSEA is transforming how we train new employees, using both virtual learning tools and hands-on work. The shipyard's "safe-to-fail" training areas not only offer new employees practical experience that avoid costly equipment replacements and work delays, NAVSEA's artisans also experiment with innovative techniques to improve work processes and save time during an availability.

On the private shipyard side, we face a number of challenges and are implementing several practical initiatives to help both reduce the cost and schedule for surface ship maintenance and provide our industry partners with the stability and predictability they need to succeed.
The Navy is preparing the second Long-Range Plan for Maintenance and Modernization of Naval Vessels. This plan will enable us to forecast maintenance workloads for all in-service ship classes for the next 30 years. Not only will identify shortfalls in the industrial base, it will provide our industry partners with stable and predictable workloads and allow them to manage the required capital equipment and technical workforce necessary to keep our fleet fit.

We're also modifying how we contract for surface ship maintenance. Traditionally, we would award a contract 60 days before the ship is due to start its availability. We want to provide the companies more time to prepare for the work, so we're working to award 120 days before the planned start. This allows more time to order long-lead items and ensure they're staffed at the right level. For the Navy, it helps ensure the ship delivers on-time at no additional cost.

We're also working to minimize the amount of work the Navy adds to an availability once we start the maintenance work. Through studying past availabilities, we've determined that if we add new work to an availability late in the process, when 60 percent of the initial work package is complete, we will not be able to deliver on-time. Now, to add work into an on-going availability we require flag officer concurrence to ensure all stakeholders agree with decision and to lay out any potential schedule impacts.

Workload stability is a key schedule and cost driver for our industry partners – the more stable and predictable the workload, the more they're able to submit competitive bids, retain their trained artisans, and therefore complete availabilities on time. With that in mind, we're looking to bundle ships together into single competitively-awarded contracts.

Along those same contracting lines, in most recent contracting agreements we've included pre-priced changes, so that when an emergent requirement expands the scope of the contract, the work is not stopped while awaiting a contract modification.

NP&FP: What future initiatives are you focused on?

VADM Moore: We are taking a holistic approach to ensuring both our public and private yards have the information, people, and equipment needed to maintain the world's greatest Navy. We will continue to work with Congress and our industry partners to address our challenges and to efficiently maintain and modernize the Navy's growing fleet.

Two areas deserve particular attention in this area are technology and infrastructure. We are now testing innovative technology that will improve our maintenance processes. Cold spray is a great example. This technology sprays metal powders at high velocity that mechanically bonds to a surface. The result is a high-performance coating that can be machined to very tight tolerances. Now, we can take older components – valves for instance – and instead of buying new ones or sending them out for an expensive refurbishment we can spray them, machine them to the right level, and reuse the component. This saves money and reduces the cycle time to replace or repair certain parts.

Another innovative program uses hull-crawling robots to carry a variety of test equipment and conduct hull inspections, non-destructive testing and biofouling removal. Not only does this remove the need for scaffolding or lifting equipment, it offers the potential to reduce dry docking periods by up to two weeks and improve the level of safety for our people.

The Navy is dedicated to modernizing its four shipyards and is now in its second year of the planned 20-year, $21 billion Shipyard Infrastructure Optimization Program (SIOP) that will deliver 21st-century shipyards to the Navy. The four Naval Shipyards were designed
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to support building ships of sail and coal. Today, they maintain the Navy’s nuclear-powered aircraft carriers and submarines. While these facilities have been adapted for today’s work, their original architecture remains. SIOP will reconfigure each shipyard to improve productivity through infrastructure improvements, the recapitalization of outmoded equipment while also executing required dry dock maintenance and upgrades needed to support the next-generations submarines and aircraft carriers.

In SIOP’s initial two years, the Navy has started a series of projects and begun the delivery of new capital equipment across the four shipyards.

For Pearl Harbor Naval Shipyard & Intermediate Maintenance Facility (PHNSY&IMF), we delivered 150-ton heavy lift transporters to support Virginia Class availabilities. More importantly, the Navy and its industry partner tracked every aspect of the recent USS Asheville (SSN 758) maintenance availability to build a “digital twin” of the shipyard. This dynamic virtual shipyard will enable the Navy to manipulate data and measure the impact of moving certain shops and work spaces to different areas within the existing footprint. The Navy will use this data to reimagine the shipyard to improve productivity, safety, and the quality of life of our shipyard personnel. PHNSY&IMF will also be the first shipyard to receive a Dry Dock Production Facility (DDPF) which, as currently envisioned, will enclose multiple dry docks and move much of the production work to the waterfront. The Navy plans to award the DDPF construction contract in fiscal year 2023.

Puget Sound Naval Shipyard & Intermediate Maintenance Facility (PSNS&IMF) will be the second naval shipyard to have a digital twin built. To ensure the Navy properly understands the complex workflow, it will track both an aircraft carrier and submarine availability. Work started on this effort on Oct. 14, and we expect final delivery in Fall 2020. PSNS&IMF received the first 55-ton mobile crane this year which will allow the shipyard to more effectively execute maintenance work.

Portsmouth Naval Shipyard (PNSY) replaced an obsolete and maintenance-intensive lathe with a computer operated Horizontal Turning Center. The center will improve productivity at PNSY and reduces the maintenance burden on our workforce. Work has also begun on Dry Dock #1 in preparation for refueling selected Los Angeles Class Submarine submarines. Efforts include building a super flood basin and a building designed to support Los Angeles Class service life extension work. The Navy anticipates starting PNSY’s digital twin study in early 2020.

Norfolk Naval Shipyard (NNSY) has seen a number of Military Construction efforts begin or deliver in the past year. We re-opened the renovated Waterfront Operations Support Facility (Building 1735) located near Pier 3 last July. This two-story structure houses 15 shop spaces and allows for work to be executed near the ships, which reduces travel time and increases efficiency. On the same day, the Navy broke ground on a new Production Training Facility that will host most of the training classes and shops for the entire shipyard. Further, the Navy awarded a contract in September to build a new defueling and inactivation complex that will replace a 25-year old facility. The new M-140 Complex will alleviate frequent required repair work and support the increase in submarine inactivations planned for the 2020s.

The Navy also awarded a contract for a horizontal boring mill for NNSY’s Navy Foundry and Propeller Center in Philadelphia, Pennsylvania to support Columbia Class (SSBN) and Virginia Class (SSN) propulsor manufacturing. NNSY took possession of a Bridge Mill which replaces two obsolete and less effective machines to support aircraft carrier and submarine shaft, rudder, and fairwater plane work. The Navy plans to begin NNSY’s digital twin effort in early 2020.
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*All Classified | **Partially Classified
Navy USV Program Forges Ahead

The second phase of the Ghost Fleet Overlord program commenced with the award of contract modifications to the two industry teams who participated in Phase I, the Program Executive Office Unmanned and Small Combatants (PEO USC) announced Oct. 1, 2019. Request for Proposal for the development of the Medium USV was issued July 16, 2019 and the Navy issued a request for proposals on Sept. 5, 2019 for the award of multiple conceptual design contracts for the Large USV in fiscal 2020.

The Overlord program, developed by the Office of the Secretary of Defense Strategic Capabilities Office (OSD SCO) in partnership with PEO USC, will play a vital role in informing the Navy's new classes of unmanned surface vessels (USVs).

Phase I converted two existing commercial fast supply vessels into USVs and focused on autonomy system integration; demonstration of navigational autonomy; and hull, mechanical and electrical system reliability upgrades. Phase I concluded in September with a successful capstone demonstration of both Overlord vessels executing interactions compliant with the Convention on the International Regulations for Preventing Collisions at Sea (COLREGS). Along with reliability of systems tests, more than 600 hours of autonomy testing was successfully completed during Phase I, including several long-range autonomous transits in a complex navigational environment.

Phase II will be conducted using the same ships from Phase I and will focus on the integration of government-furnished command-and-control systems and payloads and involve more complex and challenging naval experimentation. Phase II will complete in Fiscal Year 2021 at which point the Overlord vessels will transition to the Navy for further experimentation.

The experiences gleaned from both Phase I and II of Overlord are designed to inform and accelerate the Navy's Large and Medium USV programs, which are managed by the same team in PEO USC.

More info: Navsea.navy.mil

A Ghost Fleet Overlord test vessel takes part in a capstone demonstration during the conclusion of Phase I of the program this past September. Two existing commercial fast supply vessels were converted into unmanned surface vessels (USVs) for Overlord testing, which will play a vital role in informing the Navy’s new classes of USVs. (Photo by U.S. Navy/RELEASED)

Bolstering EW

As Electronic Warfare (EW) continues to shape the future battlespace, Northrop Grumman is advancing a critical capability for the U.S. Navy. The Surface Electronic Warfare Improvement Program (SEWIP) protects surface ships from anti-ship missiles, providing early detection, signal analysis and threat warning. Three SEWIP block upgrades have been established and a fourth is planned. SEWIP Block 3, being developed by Northrop Grumman and the U.S. Navy Program Executive Office Integrated Warfare Systems (PEO IWS), adds electronic attack to the SLQ-32(V) EW system, and is a cornerstone capability that will meet the urgent operational needs of the Fleet. The timing couldn’t be more important, as the pace and complexity of emerging threats continues to escalate.

In January 2019, Northrop Grumman announced it had successfully reached a Milestone C decision from the U.S. Navy, reflecting the government-led review of the technology’s performance and readiness. The company’s navigation and maritime systems division soon launched low-rate initial production (LRIP) of the SEWIP Block 3 AN/SLQ-32(V)7 system. That same month, Northrop Grumman opened a multi-million dollar, state-of-the-art high-bay facility, specifically designed for integration and testing of the system’s hardware and software.

Low-Rate Initial Production and Testing

Northrop Grumman’s manufacturing team has successfully built the SEWIP Block 3 engineering and manufacturing development (EMD) hardware and is currently conducting system integration and test. Testing in the high-bay facility’s anechoic chamber has been proceeding well.

After successfully completing the manufacturing readiness assessment, demonstrating proven processes and equipment in place, the team launched material procurement and has started manufacturing the first two LRIP systems. An important milestone was recently reached with the production of the 500th RF module, Transmit and Receive components used in the SEWIP Block 3 system.

As progress continues, Northrop Grumman is on track for targeted installation of the first SEWIP Block 3 system in 2021 on an Arleigh Burke-class guided missile destroyer.

More info: Ngc.com
The U.S. Navy recently tested Raytheon's SPY-6 next-generation scalable radar system at its Pacific missile range, and the results were "eye watering" according to Mike Mills, Raytheon's SPY-6 program director.

"It's 100 times more sensitive than the existing SPY-1. It gives you that much more range, and that means the Navy can counteract that much quicker," Mills said.

Much of what the system can pick up remains classified, Mills said. But as threats become more complex, they're tougher to detect; SPY-6 can help the Navy keep its edge, he added.

"This radar now is able to give that capability back to the Navy that they're able to track and detect those [threats] as early as possible to combat that," he said. "That's really what it gives the Navy back."

SPY-6 is built using individual 2-square-foot building blocks called Radar Modular Assemblies (RMAs). The one that will be built on the Flight III DDGs is made up of 37 RMAs. Different ships can go smaller with 24- or nine-block setups.

The Navy's Flight IIA destroyers will receive the 24-block model to help keep those ships in the fight.

More info: Raytheon.com

CNO Outlook on Priorities for 2020 and Beyond

Recent guidance from Chief of Naval Operations ADM Michael Gilday promotes former CNO ADM John Richardson's "A Design for Maintaining Maritime Superiority" moniker in streamlined points:

- **Readiness.** The first priority is to improve ship maintenance and modernization. Gilday's guidance includes the Navy's Optimized Fleet Response Plan governing ship life cycle sustainment, and an order to Naval Sea Systems Command to develop a plan and report back to him in 60 days with ways to improve and sustain the maintenance industrial base, and to target an 80 percent reduction in days lost to depot maintenance extensions in 2020.

- **Warfighting Goals.** The guidance spends much of its time dwelling on ambitious goals, such as connecting the Navy's assets on a fleet tactical grid that will allow the force to operate in a more distributed manner over a larger area. The concepts will be proved out in large-scale exercises, which the Navy will execute annually, the guidance adds. The concept also call for a heavier emphasis on space, cyber and electronic warfare, as well as integrating more special operations into the way the Navy fights.

- **Advanced Training.** The guidance goes into some detail on the kinds of training the Navy should pursue, including more live-virtual constructive training, which uses computer simulations to integrate synthetic tracks into real-time sensors to give operators a more lifelike experience in training. The guidance also calls for a continued push toward what the Navy terms as "ready, relevant learning," or using more technology to get sailors trained faster with the skills they need right away, and eschewing extras that may not be part of their everyday job. It also calls on integrating more training on decision-making science into leadership development.

- **Undersea Warfare.** The first two priorities under "Future Navy" are to field the Columbia-class ballistic missile submarine and to "maintain mastery of the undersea domain." Listed third is to maintain strong forward presence with the carrier fleet. The guidance continues that the Navy must continue to invest in longer-range precision strike capabilities, and do so through an integrated approach alongside the Marine Corps. And, in short, the Navy must be oriented toward offense, a shift away from the defensive posture taken post Cold War, which focused on protecting the carrier as the main strike weapon.

- **Budget Consciousness.** A focus on fielding cheaper ways to defend ships is non-negotiable, Gilday said, meaning that he will continue to push toward directed energy and electronic warfare as a means of bringing down costs.

More info: Navy.mil
PROMOTING COLLABORATIVE TEAMING FOR SYSTEMS READINESS

Vice Admiral Peters assumed responsibilities as Commander, Naval Air Systems Command in May 2018. VADM Peters is a native of Louisville, Kentucky. He’s a 1985 graduate of the U.S. Naval Academy. Peters has earned post-graduate degrees in Aeronautical Engineering and Telecommunications and is a graduate of the U.S. Naval Test Pilot School, Class 102.

After earning his wings as a naval aviator in 1986, he flew the SH-2F Seasprite in support of multiple detachments deployed to the North Atlantic, Persian Gulf and Gulf of Mexico, completing anti-submarine warfare, surface warfare and counternarcotics operations embarked on four different ship classes. He served as detachment officer-in-charge aboard USS Thomas C. Hart (FF 1092).

As commanding officer of Air Test and Evaluation Squadron (HX) 21, the squadron accomplished over 11,000 flight test hours and was the 2006 recipient of the CNO Safety Award.

Peters has served in numerous acquisition billets. From Nov. 2007 through July 2011, Peters served as program manager for the H-60 Helicopters Program Office (PMA-299), delivering over 150 helicopters, numerous upgrades, and supporting the first three carrier strike group deployments of the MH-60R and MH-60S Seahawks. From Aug. 2011 to July 2014, Peters commanded the Presidential Helicopters Program Office (PMA-274), leading the program through Milestone B and contract award for the Engineering and Manufacturing Development Program.

Peters’ flag assignments include commander, Naval Air Warfare Center Aircraft Division; assistant NAVAIR Commander for Research and Engineering; and Program Executive Officer, Air Anti-Submarine Warfare, Assault and Special Mission Programs (PEO(A)).

VADM Peters, NAVAIR Commander, spoke recently with NP&FP, regarding current and forward-looking efforts the Navy’s primary air support entity is pursuing, in particular, material readiness and capabilities development.

NP&FP: What are NAVAIR’s top priorities?

VADM Peters: NAVAIR’s top two priorities are improving material readiness and increasing speed of capability development. We are fleet focused – committed to delivering capabilities that meet expectations and enable our Sailors and Marines to win in today’s dynamic and competitive environment.

Our toughest near-term challenge in achieving Chief of Naval Operations (CNO) and Command Master Chief (CMC) goals for mission capable aircraft and weapon systems is restoring the material condition of our aviation fleet and depot level repairable components. Efforts include dramatically improving capability and production capacity at our Fleet Readiness Centers (FRCs), eliminating quality escapes in equipment delivery and repair, and collaborating with Naval Supply Systems Command (NAVSUP) and Defense Logistics Agency (DLA) to improve forecasting and on-time delivery of equipment and parts.

The collective efforts of the Naval Aviation Enterprise are paying off. On Sep. 24, 2019, Naval Aviation met the Secretary of Defense’s goal of 80% mission capable Super Hornets and Growlers. The Air Boss, Vice Adm. Miller, has challenged us to up our game, expanding our progress to increase lethality and survivability across all mission sets and across all Type/Model/Series (T/M/S) aircraft.

Our second major priority is increasing the speed of developing and delivering effective and sustainable aircraft and weapons systems.
Efforts range from strengthening our rapid-response capabilities to reducing acquisition cycle time and improving quality and reliability through our contracting process.

Over the past year, we redesigned NAVAIR’s organizational structure and Concept of Operations (CONOPS) for increased responsiveness – placing people and resources closer to the product and the fleet and inspiring shared focus and accountability for fleet outcomes.

The three tenets of NAVAIR’s “Mission Aligned Organization” are delegating authority closer to the point of execution; integrating functional disciplines for increased collaboration, innovation and speed; and adapting our approach to the outcome – designing and executing with the end in mind.

NP&FP: How are you addressing readiness and sustainment?

VADM Peters: We have several initiatives underway that are demonstrating exciting results. At the Naval Aviation Enterprise level, implementation of the Naval Sustainment System for Aviation (NSS-A)
has been instrumental in achieving our 80% mission capable goal for Super Hornets and I expect similar improvements across all platforms as we expand and replicate lessons learned.

NAVAIR’s contribution to NSS-A includes increasing Fleet Readiness Center (FRC) intermediate and depot-level maintenance capabilities and production capacity. We are leveraging data analytics to identify and close performance gaps and reduce the number of days lost through depot-level availability extensions. Our aviation depot plan expands NSS-A improvements to all T/M/S aircraft and component repair lines. In addition, we are increasing repair capacity and capability at intermediate-level FRCs to reduce component repair turn-around time and improve parts availability for the flight line. FY19 results across FRCs showed increased throughput on aircraft, components and engines.

Another component of the NSS-A initiative is improving reliability of systems and components. Leveraging industry best practices, we implemented Reliability Control Boards (RCB), which occur monthly for all T/M/S aircraft and focus on the top 20 components degrading readiness. These activities have yielded action against both specific component reliability issues and systemic/cross-platform issues such as corrosion and systems common to multiple T/M/S. RCBs also help identify issues related to data availability and analytic capabilities critical our reliability goals. To address these issues, we’ve established a cross-organizational NAE data analytics team, implemented common metrics and tools across all T/M/S aircraft, and identified an Artificial Intelligence (AI) solution to address the integrity of existing data. Improvements in troubleshooting and repair practices have led to a 37% improvement in our F/A-18E/F and Generator Control Units since February 2019.

Our FRCs are committed to delivering the highest quality airframes, engines, components and support equipment to the Fleet. One of our goals is to eliminate quality escapes for repairs. In 2017, we implemented a Quality Management System aligned with the Aerospace Standard for Aviation Maintenance Organizations (AS-9110). This standard focuses on the control of repair schemes and maintenance plans, configuration management, and skills and qualifications necessary to perform maintenance and repairs. Since implementing this system, we’ve achieved a 57% reduction in quality escapes.

We’re working with NAVSUP and DLA to improve forecasting and on-time delivery of equipment and parts. Our Sustainment Group is developing the Informed Demand Dashboard and Informed Demand Calculator; both will pull from multiple data sources to create a more “informed demand signal” from fleet and FRC maintenance activities that ensures accurate data on supply posture throughout the system and enables effective and appropriate response to true demand.

Finally, our additive manufacturing (AM) program team reviews aircraft dashboards for equipment and parts challenges that can be resolved with AM parts. To date, we’ve achieved a 70% cost reduction and 97% faster delivery time for low criticality, low-risk polymer parts. AM is definitely a game changer for both readiness and speed!

NP&FP: What initiatives are you pursuing to increase speed of capability delivery?

VADM Peters: Increasing the speed of capability delivery is one of our strategic imperatives. Our NAWCAD AIRWorks team is a rapid response capability created to address urgent warfighting needs discovered during fleet operations. AIRWorks tailors traditional acquisition processes for speed; and leverages in-house government talent and infrastructure capabilities to design, prototype and execute complex solutions fast. This pre-set, lead-systems-integration environment enables great proficiency in fielding aircraft modifications with repeatable success and high quality.

AIRWorks brokers partnerships with mid-tier companies and small businesses to quickly integrate, certify and produce solutions across a
# 2020 Calendar of Events

| JAN | 15-16 | 2nd Military Aviation Systems Summit | Huntsville, AL |
|     | 22-23 | 2nd Operational Medicine Symposium   | San Diego, CA |
|     | 29-30 | 4th Joint Networks Summit            | San Diego, CA |
| FEB | 5-6   | 4th Military Additive Manufacturing Summit | Tampa, FL |
|     | 12-13 | 8th Automated ISR & Battle Management Symposium | Washington, DC |
| MAR | 11-12 | 8th DoD Unmanned Systems Summit       | Alexandria, VA |
|     | 11-12 | 2nd DoD Information Warfare Symposium | Washington, DC |
|     | 18-19 | 8th Joint Civil & DoD CBRN Symposium  | Alexandria, VA |
| APR | 15-16 | 7th Border Security & Intelligence Summit | Alexandria, VA |
|     | 22-23 | 2nd Hypersonic Capabilities Symposium | Alexandria, VA |
|     | 23-24 | 3rd Military IoT & Sensors Summit     | Washington, DC |
| MAY | 6-7   | 18th Bi-Annual DoD/VA and Gov Health IT Summit | Alexandria, VA |
|     | 13-14 | 2nd Expeditionary Power & Energy Summit | Washington, DC |
|     | 20-21 | Megacities & Urban Conflict Summit    | Washington, DC |

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fleets of similar Navy aircraft. With a basic technical data package and initial specification in hand and our set of pre-awarded, competitive contract vehicles, we can have a solution on contract within a fiscal quarter! In addition, NAWCAD has a growing additive manufacturing network and industrial base to speed AM projects through design, qualification and certification.

NAVAIR has significantly increased its use of AM in recent years. Since flying our first flight-critical part on the V-22 in 2016, we’ve qualified over 190 parts across our platforms and systems; over 120 of these parts can be produced by Fleet maintainers using their own printers, giving them the agility the Fleet needs to be ready. This summer, we qualified a part for our MAL-12 maintenance squadron enabling them to get an aircraft back in the air in 7 days instead of the average 500. NAVAIR produced over 3,500 parts in 2019 – but we need industry with us to scale and integrate AM across the enterprise.

Model-Based Systems Engineering (MBSE) has great potential to increase speed of capability development in today’s rapidly evolving threat environment. MBSE enables programs to adapt quickly to emerging threats and fleet needs and ensure operational relevance by continuously assessing weapons system requirements and design attributes from a “mission context” throughout the development process.

Our Mission Integration and Special Programs Office (PMA298) is applying MBSE to increase of capability development in three product areas: the Next Generation Fighter program, Battle Management Aids (an integrated set of tools to support the high-end fight), and the Naval Integrated Fires capability. MBSE methods and tools enable the program office to identify mission-level needs and allocate resulting system performance attributes to individual platforms and weapon systems with increased speed and operational relevance. An Integrated Modeling Environment (IME) enables the government-industry team to continuously collaborate using a single technical baseline developed in an interactive construct. This facilitates early discovery of performance limitations or integration challenges, automates verification and validation, and results in earlier fielding of initial capability and upgrades.

We are also increasing speed through innovative procurement strategies. Our total acquisition cycle time for FY19 competitive procurements reflects a 20% decrease year over year from FY16 – a 48% decrease from four years ago! We are making great strides in reducing the sole-source total acquisition cycle time as well, deploying advances in machine learning and other innovative tools. Our use of Multiple Award (MAC) Indefinite Quantity (IDIQ) contracts for hardware and services has reduced acquisition cycle time, in some cases up to 75%.

NAWCAD AIRWorks recently used its Prototype and Limited Production MAC IDIQ contract to competitively award manufacture of 28 production-representative MH-60 Gunner Seats for testing and fleet validation. In one year, AIRWorks and industry designed, developed, tested, validated and awarded a full rate production contract for 600 Gunner seats. If we had employed traditional acquisition methods, this work would have taken two to three times as long, and the government would likely not have acquired the technical data package for the design. This approach saved significant time and money and addressed a top safety priority for the fleet.

We’re also increasing speed by reducing repetition in the acquisition process. Our program managers and business experts have increased their use of option quantities and production lots in major weapons system production contracts. This allows for budget and planning foresight and allows for advances in data forecasting accuracy so teams can leverage historical actual costs and negotiated pricing. Success stories in this area include AIM-9X and AARGM missile programs, where we leveraged available data to include FY20 quantities. This eliminates the FY20 solicitation, proposal, evaluation and negotiation cycle, enabling us to adapt to fleet demands with variation in quantity procedures built into the contract.

Advanced analytics holds even greater promise to increase speed of capability delivery. Software such as RStudio enables the government to identify the correct data to request to establish a fair and reasonable price, including supplier data and historical labor actuats. Targeting the right data has the potential to reduce the data demand on Industry, decreasing the proposal preparation portion of the total acquisition cycle time. Our proposal analysis division is developing tools both industry and the government can use to decrease the time it takes to propose, analyze and negotiate deals. We plan to mature and expand this capability to all of our major primes in FY20 and beyond.

Reducing the volume of financial transactions and associated turn-around time also holds great potential for increasing speed. In FY19, we achieved a 12% reduction in funding document volume and a 10% reduction in turnaround time overall. We reduced the number of funding documents for sustaining engineering by 41%. We will continue to pursue efficiencies in FY20 with a specific goal of reducing reimbursable work orders by combining like efforts from the same program lines.
SUPPORTING GROUND- AND SEA-BASED SUPPLY CHAIN ADAPTABILITY

Rear Admiral John T. Palmer assumed command of DLA Land and Maritime, Columbus, Ohio, June 27, 2018, after coming from U.S. Pacific Fleet where he served as Director, Logistics, Fleet Supply and Ordnance.

As DLA Land & Maritime Commander, Palmer oversees the end-to-end integration of the DLA Land and Maritime Supply Chains delivering repair parts to all Military Services. He directs the efforts of more than 2,500 associates at 37 locations worldwide, to include three DLA Depot Level Reparable detachments and four detachments supporting U.S. Naval Shipyards. DLA Land and Maritime’s core functions include purchasing materiel, monitoring inventory levels, maintaining technical data, and assuring quality conformance of approximately two million spare and repair parts utilized by more than 19,000 military units and federal and civilian agencies. In 2019, DLA Land and Maritime’s sales exceeded $4.1 billion.

RDML Palmer is a native of Lexington, Kentucky, and a 1988 graduate of The Citadel with a Bachelor of Science in Business Administration. He also graduated from the Naval Postgraduate School with a Master of Science in Systems Management (Acquisition and Contract Management) and the Columbia University Graduate School of Business Senior Executive Program.

His command shore assignments include commanding officer, Naval Supply Systems Command (NAVSUP) Fleet Logistics Center San Diego; commander, Defense Distribution Mapping Activity (DDMA); and commander, Defense Distribution Depot Richmond, Virginia (DDRV). Operational assignments include supply officer, USS Harry S. Truman (CVN 75); principal assistant for logistics, USS George Washington (CVN 73); supply officer, USS Boone (FFG 28); and material division officer and aviation support division officer, USS Guam (LPH 9).

Other tours ashore include assistant commander, Supply Operations & Logistics Policy (N3/4) and executive assistant to Commander, NAVSUP; director of supply corps personnel, Navy Personnel Command (NCP); deputy assistant commander for contracts, deputy department head for contracts in support of PEO (W) (Cruise Missiles & Unmanned Aerial Vehicles) and AIR 1.0 (Multi-Mission Aircraft & Multi-Mission Platform Equipment, Naval Air Systems Command (NAVAIR); procurement branch chief, Defense Logistics Agency Aviation (formerly Defense Supply Center Richmond); and instructor of supply management and joint aviation supply & maintenance material management, Navy Supply Corps School.

RDML John Palmer
Commander
DLA Land and Maritime
Defense Supply Center
Columbus, OH

RDML Palmer, DLA Land and Maritime Commander, Defense Supply Center Columbus, spoke recently with NP&FP regarding current focus areas and challenges at the nation’s combat logistics support agency.

NP&FP: What is DLA L&M’s current broad mission focus and how has that evolved over recent decades to present?

RDML Palmer: Our mission reflects the primary focus area of the Defense Logistics Agency’s overall mission, which is warfighter support, so I’d like to give you a perspective on the scope of DLA’s mission and tie in Land and Maritime’s contribution to that mission.

DLA is the nation’s combat logistics support agency, and as implied, DLA ensures our military services receive whatever commodities they need with the exception of ordnance. These commodities which include food, fuel, parts, clothing and textiles, construction and engineering...
material, are provided where and when required. DLA’s mission is also enabled by a global network of depots for distributing material as well as a global network of disposition activities that enables us to manage the entire supply chain. DLA has also expanded support beyond the warfighter to other Whole of Government departments and agencies engaged in humanitarian assistance or disaster relief at home and abroad. DLA is a worldwide, 24-hour operation that provides more than $37 billion in goods and services annually, employs approximately 25,000 civilians and military who support the combat readiness of more than 2,500 military weapon systems. This global effort requires DLA to manage about 5 million items.

DLA is a sizable logistics operation with a big footprint, and Land and Maritime’s portion of that capability involves the management of two of DLA’s nine supply chains. As a DLA major subordinate command, Land and Maritime manages the supply chains for ground-based and maritime weapon systems repair parts. As you might imagine, our largest customers are Army and Marine Corps ground weapon systems through our Land Supply Chain and Navy surface ships and submarines through our Maritime Supply Chain.

Land and Maritime’s current mission focuses on supporting our military through inter-service collaboration with the goal of improving operational readiness of their combat equipment. We are a logistics support operation that employs more than 2,500 military and civilians at locations worldwide. Their efforts help maintain approximately 2,200 weapon systems and support more than 21,200 customers, all while managing more than 2 million items. Additionally, we process more than 358,000 contracts annually, which equates to $15.4 million in contract actions per day in pursuit of optimal warfighter support. During FY19, Land and Maritime operations generated more than $4.1 billion worth of repair parts to support maintenance requirements of the military services.

NP&FP: From a combatant command service perspective, how is DLA L&M ensuring COCOM high-level readiness and lethality?

RDML Palmer: From a Force Generation perspective, DLA Land and Maritime not only provides parts to units training and preparing for deployment, but we are also embedded in many of the Services’ maintenance depots coordinating supply, storage and distribution functions. This enables the Services to staff, train and equip units in preparation for operations under the cognizance of the various Combatant Commands (COCOMs). In addition, we provide direct COCOM support through parts positioned for use around the globe by forward deployed operational units.

We track our logistics support effectiveness through several criteria. One of our evaluation metrics is material availability (MA), which measures how often parts under Land and Maritime’s cognizance are available when ordered. Another metric is backorders (BO), which measures the number of unfilled customer orders that exist. Ideally, we want our operating metrics to reflect high MA and low BOs. That means we’re providing quality logistics support to our customers with minimal delays. In FY19, Land and Maritime achieved record setting performances in both MA and BOs. Land and Maritime’s MA exceeded 90%, and this was complemented by a 15% reduction in BOs. That MA translates into Land and Maritime meeting or surpassing the equipment demands of our military services and additional customers in 9 out of 10 requirements. These results are not achieved in isolation. Land and Maritime strategically communicates across the Services to help improve demand planning accuracy by assisting with the identification and prioritization of their operational needs. This communication cross flow increases the tracking accuracy of military weapon system requirements and makes sure those requirements are filled efficiently.
NP&FP: In terms of global posture, how does DLA L&M sustain immediate action readiness regardless of tasking?

RDML Palmer: The DLA Land and Maritime is located in 29 locations around the world to position our team shoulder-to-shoulder with the warfighter at home and abroad. DLA also has regional commanders co-located with overseas COCOMs, and the regional commanders are in constant communications with COCOMs and component commands. This gives us key and timely information to respond to changes in unit schedules and surge activity to include deployments and redeployments. With this information, DLA can leverage our network of distribution depots to store and issue critical material around the world. One of the best examples of global posture is industrial maintenance that is conducted for our Forward Deployed Naval Forces (FDNF) in Japan. DLA Land and Maritime has parts and personnel positioned forward to support the maintenance of these units that are critical to power projection overseas.

NP&FP: With supply chain accountability a priority, talk about ways DLA L&M is streamlining acquisition processes.

RDML Palmer: This is an area of constant advancement. Incorporating contracting innovations, reducing the time it takes to award contracts and improvements in demand forecasting capability are just a few modernizations Land and Maritime employs as we focus on continuous process improvement for our procurement processes. One area that’s proven successful is our increased integration of long term contracts where applicable. Long term contracting has enabled us to reduce procurement lead time while also guaranteeing more reliable parts availability. These and other actions have resulted in documented cost savings that have increased our acquisition efficiency and improved logistics support to our military.

NP&FP: As the threat to homeland security, whether natural disaster or terror-based, speak to ways DLA L&M helps bolster U.S. infrastructure.

RDML Palmer: DLA continues to expand its energies executing objectives outlined in its strategic plan. Under DLA’s Whole of Government focus, the Agency works closely with the Federal Emergency Management Agency (FEMA) and other Department of Defense organizations to provide emergency logistics support when requested. We provide support for hurricane relief on a frequent basis in addition to other humanitarian efforts inside and outside the U.S. DLA is able to respond through deployable depots with emergency response teams to provide meals, fuel, water and water treatment capabilities, construction and engineering material and any additional commodities that may be required. By extension, we also provide simultaneous support to National Guard and Reserve units that may also be responding to the events of the day.

NP&FP: To better support the Joint Logistics Enterprise, how is DLA L&M leveraging partnerships with interagency, industry, and foreign allies?

RDML Palmer: As the equipment needs of our services continue to grow, we have redoubled our outreach efforts to bring key defense sector industry leadership together to develop more inventive approaches to meeting the logistics fulfillment challenge. Land and Maritime has strategic supplier alliances (SSAs) with key parts manufacturers that provide large quantities of parts in support of land and maritime weapon systems. Under our SSA agreements, we communicate more frequently with these strategic allies and hold them to higher standards of performance than other vendors. The SSAs result in better warfighter support, but we also host numerous industry forums drawing national industry partners and we regularly collaborate with large and small businesses to improve logistics coordination between the services and DLA. These outreach activities are all components of DLA’s strategy to strengthen the defense industrial base and optimize logistics support operations by generating a synergy that ultimately enhances our military’s readiness posture.

NP&FP: Feel free to speak to any challenges/goals going forward.

RDML Palmer: As the National Defense Strategy makes clear, our armed forces now face the prospect of potential conflict with peer adversaries. As such, strategies are constantly changing to permit our warfighters to fight and win in this new environment. Logistics must be agile enough to compensate for all potential adversaries and adjustments to be made by our leadership across the COCOMs and Services. DLA and DLA Land and Maritime are working to provide agile and flexible logistics in controlled and contested environments to enable our armed forces to fight and win - anytime - anywhere.
The effort will leverage DLA's global supply chain capabilities to improve F-35 readiness as it assumes storage responsibility in January. The F-35 Joint Program Office (JPO) designated DLA in December as the Product Support Provider (PSP) for North American Regional Warehousing, as well as PSP for Global Transportation and Distribution in partnership with U.S. Transportation Command (USTRANSCOM).

DLA's new role in F-35 support will increase the Defense Department's visibility of F-35 spare parts inventory as DoD works to decrease sustainment costs and improve readiness, said Navy Capt. Jeff Davis, director of DLA Logistics Operations' Sustainment Solutions Division. "We're working closely with the JPO, USTRANSCOM, and Lockheed Martin to improve sustainment support for the F-35 by moving inventory into DLA warehouses located closer to the point of demand inside the fence line of DoD aviation maintenance facilities. The goal is to accelerate maintenance through closer coordination with maintenance facilities," he said.

Navy and Air Force Life Cycle Support

Sustainment for the F-35 differs from traditional weapons systems support where the military services determine what's needed where, then look to organizations like the Naval Supply Systems Command and Air Force Materiel Command for support. F-35 sustainment instead applies an approach known as Contractor Logistics Support in which Lockheed Martin provides all supply support for aeronautics and software, and Pratt & Whitney supports engine and lift fan modules.

As the newly designated PSP for warehousing in the United States and Canada, DLA will provide storage and management support for the Joint Spares Pool made up of all F-35 program spares jointly owned by international partners. The spares are packaged to meet the needs of specific customers. The Base Spares Package, for example, contains repair parts needed to support aircraft operating on a given military installation. The Afloat Spares Package includes items commonly needed to support F-35 operations aboard a ship, and the Deployment Spares Package provides parts units need to sustain aircraft operating away from home base or supporting contingency operations.

"The F-35 Joint Program Office Hybrid Product Support Integrator, comprising of JPO, Lockheed Martin, and Pratt & Whitney staff, determines what's needed in each package and makes decisions about where the material needs to be positioned and how much is needed. DLA's responsibility is to store that material and work with
USTRANSCOM, which will leverage its network of contracts and carriers to move items to customers as we receive supply shipping orders from the JPO,” Davis said.

**Recent Milestones and Goals**

DLA and USTRANSCOM stood up a PSP Transition Cell in February to outline requirements for warehousing and transportation. Teams are working to tailor F-35 program financial, contracting and information technology processes to leverage existing DLA and USTRANSCOM capabilities. DLA expects to reach full operating capability in 2021 when inventory is migrated from contractor-owned systems into DLA business systems.

“Then we’ll have what’s called an accountable property system of record that provides the type of accountability required for managing government property,” Davis said, adding that JPO would still retain ownership of the inventory.

“Migration of F-35 inventory will be accomplished using existing DLA infrastructure, eliminating duplication of inventory in commercial facilities,” Davis said. Spares packages have already been moved to DLA Distribution facilities in Oklahoma City, Oklahoma, and Hill Air Force Base, Utah. Proof of principle demonstrations with USTRANSCOM have also tested the transportation process.

“We’ve done test shipments to DoD entities overseas in the Middle East and U.S. Pacific Command areas of operation, and we’ve bested our own time-definite delivery metrics,” said Navy Capt. Justin Lewis, a member of the PSP integration team. Davis said he believes the agency will help make the F-35 program more efficient as it streamlines warehousing. “In many cases, inventory is currently being held in contractor warehouses located close to DLA warehouses. Using DLA warehouses positioned on the base with customers we’re already supporting just makes sense and eliminates costly supply system duplication while maximizing the use of facilities already available to customers,” Davis said.

DLA Disposition Services is also awaiting an official designation by the Joint Strike Fighter Joint Executive Steering Board as the Global Disposition PSP, through which it will provide disposal services for F-35 parts. The assignment of National Stock Numbers is the first step in the identification of F-35 material and will enable material management, demilitarization and disposal. DLA’s support to the F-35 JPO Global Support Solution is in alignment with Under Secretary of Defense for Acquisition and Sustainment objectives to improve mission readiness while optimizing inventory accountability and sustainment affordability. DLA does this by focusing on strong partnerships with DoD entities and industry and leveraging Joint Logistics Enterprise opportunities. ●

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- Air Force Safe-To-Fly Certification
- ECAT Contract: SPE2D1-16-D-0009
- DLA DAPA Agreement: SP0200-03-H-0008
- DLA VIPA Agreement: VMP-1412-03
- FSS Contract 65IIa/GSA Schedule - V797D-30127

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**NSN 6515-01-626-8691**
Masimo PN 3639

- U.S. Army Air Worthiness Release Certification
- ECAT Contract: SPE2D1-16-D-0009
- DLA DAPA Agreement: SP0200-03-H-0008
- DLA VIPA Agreement: VMP-1412-03
- FSS Contract 65IIa/GSA Schedule - V797D-30127
- Air Force Safe-To-Fly Certification

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**NSN 6515-01-655-9412**
Masimo PN 9709, 9809, 9909

(Bluetooth LE Option with a Rotational Screen)

- ECAT Contract: SPE2D1-16-D-0009
- DLA DAPA Agreement: SP0200-03-H-0008
- DLA VIPA Agreement: VMP-1412-03
- FSS Contract 65IIa/GSA Schedule - V797D-30127
- Air Force Safe-To-Fly Certification

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Caution: Federal (USA) law restricts this device to sale by or on the order of a physician. See instructions for use for full prescribing information, including indications, contraindications, warnings, and precautions.

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The INVISIO V10, V20 and V50 are lightweight and rugged single and dual com Control Units designed for those users requiring only single or dual comms. Combined with the INVISIO X5 in-ear headset the INVISIO Control Unit provides industry leading hearing protection, clear communication in noisy environments and state of the art situational awareness.

Learn more at www.invisio.com