



# CNO's Navigation Plan

2016 - 2020



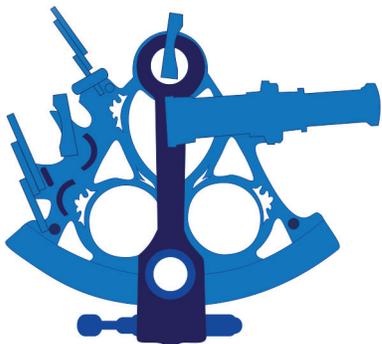
A Navigation Plan is drawn from *Sailing Directions*, which is a foundational document that describes in detail how a ship prepares for and safely and effectively conducts a journey. My *Sailing Directions* prepare us and help set the course of the Navy throughout my tenure as CNO. Each year, I issue a Navigation Plan. This year's Navigation Plan highlights our Navy's key investments, which support missions and functions outlined in the defense strategic guidance (DSG), *Sustaining U.S. Leadership: Priorities for 21st Century Defense*, and the 2014 Quadrennial Defense Review, viewed through the lens of my three tenets: Warfighting First, Operate Forward, and Be Ready. In March 2015, the Navy, Marine Corps, and Coast Guard published a revised maritime strategy, *A Cooperative Strategy for 21st Century Seapower: Forward, Engaged, Ready*, which provides more specific guidance on how we will design, organize, and employ the Sea Services in support of our national, defense, and homeland security strategies.

Six programmatic priorities guided our budget decisions in PB-16: (1) maintain a credible, modern, and survivable sea-based strategic deterrent, (2) sustain forward presence, distributed globally in places that count, (3) develop the capability and capacity to win decisively, (4) focus on critical afloat and ashore readiness to ensure our Navy is adequately funded and ready, (5) enhance the Navy's asymmetric capabilities in the physical domains as well as in cyberspace and the electromagnetic spectrum, and (6) sustain a relevant industrial base, particularly in shipbuilding.

## WARFIGHTING FIRST

Everything we do must be grounded in this responsibility. Our Navy must have the capability and capacity to conduct war at sea, and win decisively. This requires that we fund four enduring functions around which our Navy has historically organized, trained and equipped: deterrence, sea control, power projection, and maritime security, as well as capabilities related to a new fifth function: all domain access. To maintain our warfighting edge, our FY 2016-2020 budget submission:

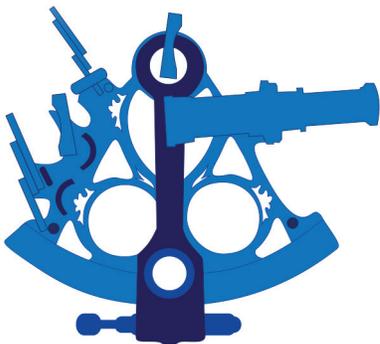
- ◆ Sustains today's 14-ship nuclear ballistic missile submarine force (SSBN), the Trident D5 ballistic missile and support systems, and the Nuclear Command, Control, and Communications systems. It fully funds RDT&E and Advanced Procurement to support construction of the first Ohio Replacement SSBN in 2021 for delivery in 2028 and first deterrent patrol in 2031. This is our top priority in any fiscal scenario.
- ◆ Funds USS GEORGE WASHINGTON's (CVN 73) 44-month refueling



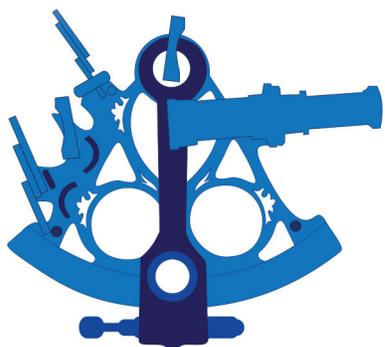
- and complex overhaul, which begins in 2017
- ◆ Supports delivery of the lead ship of a new class of aircraft carriers, USS GERALD R FORD (CVN 78). This will restore the aircraft carrier fleet to 11 ships in 2016.
- ◆ Procures ten ARLEIGH BURKE-class DDGs at a rate of two per year, resulting in an inventory of 72 by 2020. Our first Flight III DDG (requested in 2016) will incorporate the advanced AN/SPY-6 radar (formerly called the Air and Missile Defense Radar), and will be delivered in FY 2021.
- ◆ Procures ten Virginia-class SSNs, two per year, resulting in an inventory of 22 Virginia-class submarines by 2020. Starting in FY 2019, one new construction VIRGINIA class submarine per year will be fitted with the VIRGINIA Payload Module (VPM). The VPM is capable of carrying 28 additional Tomahawk Cruise Missiles in four large-diameter tubes.
- ◆ Funds the start of replacement of WHIDBEY ISLAND-class dock landing ships (LSD) with procurement of the first LX(R) in FY 2020. It also procures a “twelfth LPD” – being developed in parallel with the LX(R), and incorporating design and construction features for affordability – that will be delivered in FY 2022.
- ◆ Continues to expand the role of “reconfigurable support ships” such as the Afloat Forward Staging Base (AFSB) and Joint High-Speed Vessel (JHSV), which provide a high-low mix of capabilities that can be employed across the full spectrum of conflict. These ships will relieve pressure on the global demand for large surface combatants and amphibious ships, and allow commanders to deploy adaptive force packages suitable to changing mission needs. Two JHSVs will deliver in FY 2016 (JHSV 6-7).
- ◆ Funds the final nine Littoral Combat Ships (LCS, Flt 0+), three per year, from FY 2016 to 2018. In FY 2019, the Navy will then procure new Small Surface Combatants (FRIGATES), an upgraded design based on the LCS. They will offer improvements in capability, lethality, and survivability. Five LCS are planned to deliver in FY 2016. Mission Packages (MP) are also critical. PB-16:
  - ◆ Sustains investments in the mine countermeasures (MCM) MPs, which will achieve full operational capability in 2019. The MCM MP provides significantly faster waterspace mine clearance over legacy systems.
  - ◆ Improves surface antisubmarine warfare capability in the ASW MP by employing a multi-function towed array in concert with variable depth sonar (VDS) in 2016.
- ◆ Funds four fleet oilers (T-AO(X)) beginning in FY 2016. T-AO(X) replaces the aging single hull fleet oiler, and will ensure continued combat logistics support to our ships.
- ◆ Transitions a total of four carrier air wings to the E-2D Advanced Hawkeye by 2020, which brings Navy Integrated Fire Control-Counter Air (NIFC-CA) Increment I capability. NIFC-CA integrates aircraft sensor and ship weapons capabilities, improving lethality against advanced air and missile threats.
- ◆ Continues to support the F-35C Lightning II, the carrier-based variant of the Joint Strike Fighter, and keeps it on schedule to enter operational service in 2018. With advanced sensors, data sharing capability, and the ability to operate closer to some threats, it will enhance the air wing’s ability to find targets and coordinate attacks.
- ◆ Procures 47 P-8A Poseidon maritime patrol aircraft to replace the

legacy P-3C Orion aircraft, and completes the transition by FY 2019. We continue investments in the development of a high-altitude anti-submarine weapon delivery capability, comprised of a MK 54 torpedo kit and software support system.

- ◆ Completes the transition to the EA-18G Growler in FY 2016. Replacement of the ALQ-99 jamming pods will begin in FY 2021, when the Next Generation Jammer (NGJ) Increment I, featuring upgraded capabilities against mid-band frequencies, reaches IOC.
- ◆ Continues improvements to the air-to-air radio frequency “kill chain” designed to defeat enemy jamming at longer ranges. By 2020, about 400 jamming protection upgrade kits for F/A-18E/F Super Hornets will be delivered.
- ◆ Procures 24 V-22 (Navy variant) aircraft to replace C-2 Carrier Onboard Delivery aircraft. The V-22 will reach IOC in 2021. It will extend the range and increase the flexibility of carrier strike group resupply.
- ◆ Develops and builds the Large Displacement Unmanned Undersea Vehicle (LDUUV) to augment submarine capabilities. We will use Office of Naval Research Innovative Naval Prototype large UUVs to train our Fleet operators, preparing them for LDUUV Fleet introduction in the early 2020s.
- ◆ Maintains our investment in the Ships’ Signals Exploitation Equipment (SSEE) Increment F, which equips ships with a capability to interdict the communications, and counter elements of adversary kill chains by 2020. PB-16 adds an advanced geo-location capability to SSEE Increment F.
- ◆ Increases our investment in upgraded electromagnetic sensing capabilities for surface ships via 14 additional Surface Electronic Warfare Improvement Program Block 2 systems that will deliver in 2016.
- ◆ Ensures critical programs such as the Transportable Electromagnetic Warfare Module (TEWM), the Lithium battery-powered Remus 600 UUV for use on submarines, and Tomahawk in-flight guidance and targeting upgrades are rapidly introduced to the fleet via “Speed to Fleet” (S2F), an initiative to field advanced technologies to Fleet operators faster than the normal acquisition process.
- ◆ Stands up Real-Time Spectrum Operations (RTSO) as a Program of Record. Also a S2F initiative, RTSO will provide ships and strike groups the ability to sense and control the electromagnetic spectrum, detect interference, notify operators of spectrum issues, and provide recommended actions to improve command and control in this domain.
- ◆ Continues emphasis on cyber efforts to build the Navy’s portion of the DoD’s Cyber Mission Forces and strengthen our cyber defense capabilities afloat and ashore. We will have formed 40 cyber mission teams with approximately 1,700 cyber operators by the end of 2016.
- ◆ Aligns Navy networks with a more defensible DOD Joint Information Environment (JIE) through the implementation of the Next Generation Enterprise Network (NGEN) ashore, and Consolidated Afloat Networks and Enterprise Services (CANES) at sea. There are currently 13 ships with CANES installed. A total of 45 ships will be equipped by the end of FY 2016.
- ◆ Funds Task Force Cyber Awakening (TFCA) programs and capabilities, which we created in FY 2015. TFCA’s charter is to gain a holistic view of cyber security risk across the enterprise and make program, policy, and technical recommendations to deal with these challenges. One of the task force’s main contributions, CYBERSAFE, is a program that applies a coherent and priority-based set of design, certification, and operational



# OPERATE FORWARD



requirements to the cyber components of Navy platforms.

- ◆ Enhances the mobility and persistence of our surface and aviation forces through investments in operational energy efficiency such as hybrid electric drive for DDG-51 class ships and upgraded simulators for F/A-18, MH-60, and E-2C aircraft designed to improve tactical training and combat effectiveness.

Our revised maritime strategy re-emphasizes that forward naval presence is essential to strengthening alliances and partnerships, providing the secure environment necessary for a global economic system based on the free flow of goods, promoting stability, deterring conflict, and responding to aggression. Presence also provides flexible options to our Nation's leaders, and enables us to be where it matters, when it matters. Accordingly, our FY 2016-2020 budget submission:

- ◆ Provides a global presence of about 115 ships by 2020, representing an increase of 20 over the average of ships deployed today (95).
- ◆ Increases presence in the Asia-Pacific region, to include Mobile Landing Platform (MLP), Joint High Speed Vessel (JHSV), both LCS variants, MQ-8C Fire Scout, P-8A Poseidon, EA-18G Growler, upgraded F/A-18E/F Super Hornet, and E-2D Advanced Hawkeye. We will forward station our most capable DDGs in Japan. One additional SSN and the MH-60S Seahawk will forward station in Guam, and the MQ-4C Triton high endurance unmanned aerial vehicles will also start operating from Guam in 2017.
- ◆ Increases presence in the Middle East by 40%, to about 36 ships, in 2020. In 2016, Navy's first Mobile Landing Platform/Afloat Forward Staging Base (MLP/AFSB) will augment the on-station AFSB-Interim (the modified amphibious transport dock, USS PONCE) to support Special Operations Forces and augment mine countermeasure capability. By 2020, seven LCS will operate (rotationally) out of Bahrain.
- ◆ Continues to evolve our posture in Europe by meeting ballistic missile defense (BMD) European Phased Adaptive Approach requirements with four BMD-capable guided missile destroyers (DDG) in Rota, Spain, and land-based (Aegis Ashore) sites in Poland and Romania. Additional presence in Europe will be provided by forward operating JHSVs and other rotationally deployed combatants as required.
- ◆ Will provide "innovative, low-cost and small-footprint approaches" to security in AFRICOM and SOUTHCOM AORs by deploying one JHSV, on average, to each region. Beginning in FY 2016, we will deploy at least one Patrol Coastal ship to SOUTHCOM.
- ◆ Continues to support Naval Expeditionary Forces such as Seabees and Explosive Ordnance Disposal teams as they engage in security force assistance and related projects that strengthen our alliances and partnerships.
- ◆ Supports expansion of the Foreign Area Officer (FAO) community so that it reaches full operational capability by 2019, with an end strength of over 400 personnel to help build and strengthen international partnerships.

# BE READY

Ready Sailors, Civilians, and Families remain the foundation of the Navy's warfighting capability. Our people must be prepared, confident, and proficient. The high global demand for Navy forces stresses the force; therefore this budget continues to provide services and support to ensure that our people remain resilient and ready. Our program:

- ◆ Continues implementation of the Optimized Fleet Response Plan (OFRP), the readiness framework which serves as the foundation of our planning to restore readiness and provide stability and predictability in the lives of our Sailors and their families. USS Eisenhower, George H. W. Bush, and Carl Vinson Carrier Strike Groups (CSG) and Bataan Amphibious Readiness Group (ARG) were the first units to operate under OFRP.
- ◆ Emphasizes and rewards sea duty by continuing increased career sea pay, sea pay premium, and critical skill retention pays.
- ◆ Prioritizes and funds the most critical ashore investments within fiscal restraints per the "Shore Investment Guidance" issued in May 2015. In FY 2016, we fund the sustainment, restoration, and modernization of our facilities only enough to arrest the immediate decline of our most critical infrastructure.
- ◆ Invests the savings derived from compensation reform measures directly into programs that will improve quality of service for our Sailors. PB-16 initiatives include barracks and training building improvements, more funds for TAD travel and schools, expanded use of live, virtual and constructive training environments to provide more realistic training, and increased funding for spare parts and tools. These initiatives leverage smart technology devices and applications through the "eSailor" initiative to enhance training, communication and Sailor career management ashore and afloat. The Navy will continue to pursue additional quality of service initiatives.
- ◆ Prioritizes the integration of women across the force. Over 96% of all Navy jobs are currently available to women and we expect to open all occupations by January 2016.
- ◆ Sustains our personal readiness and resilience efforts. Building upon the success of "Bystander Intervention to the Fleet" training, we will deliver follow-on "Chart the Course" training. This training is designed to reinforce positive behaviors expected of our Sailors; foster an environment of dignity and respect; and encourage prevention and appropriate responses to sexual assault, sexual harassment, hazing, and domestic violence.
- ◆ Pursues talent management initiatives that draw the force from the broadest talent pools; evolve our service assignment process to a more market-based system; revise health and fitness standards; attract and retain innovative thinkers; provide flexible career paths; expand the career intermission program; prioritize merit over tenure; and expand graduate education opportunities.

On any given day, about one-third of our Navy is deployed around the globe, fulfilling our mandate – to be "where it matters, when it matters," ready to respond to crises and ensure the security that underpins our global economy. The last ten years of war and recent fiscal uncertainty have taken their toll, but these programs will ensure our Navy remains a balanced and capable force, able to fight and win today, while we build the Navy of tomorrow.

