



DEC 2019

# FRAGO 01/2019: A DESIGN FOR MAINTAINING MARITIME SUPERIORITY

Our Navy's strategic direction, focused on Great Power Competition, is sound. This Fragmentary Order is written for senior Navy leaders to simplify, prioritize, and build on the foundation of Design 2.0 issued in December 2018. We will focus our efforts toward **Warfighting, Warfighters, and the Future Navy**, expanding on the momentum we have gained as a Navy over the past two years guided by both the National Defense Strategy (NDS) and the National Military Strategy (NMS).

**Mission One for every Sailor – active and reserve, uniformed and civilian – is the operational readiness of today's Navy.** Our nation expects a ready Navy – ready to fight today – and our commitment to the training, maintenance, and modernization that will also ensure a Navy ready for tomorrow. We will deliver this Navy.

Modern naval operations are in rapid transition, demanding the integrated, multi-domain capabilities of our fleets. We will respond to this transition with **urgency**. Our fleets will be ready to fight and win at sea – keeping that fight forward, far from the homeland. Underpinned by resilient reach-back/reach-forward and logistics capabilities, we will deliver a combat credible maritime force, ready to conduct prompt and sustained combat operations at sea. We must also succeed in sustained, day-to-day competition, winning future fights before they become kinetic.

Together with the United States Marine Corps, our Navy is the bedrock of **Integrated American Naval Power**, a force capable of fulfilling the mandate of the NDS and NMS. We will remain steadfast in our alliances and partnerships, which remain indispensable in any future fight. We will apply time, effort, and resources to grow naval power and think differently to find every competitive advantage.

We will focus our efforts on **Warfighting, Warfighters, and the Future Navy**.

## WARFIGHTING

**End State:** A Navy that is ready to win across the full range of military operations in competition, crisis, and contingency by persistently operating forward with agility and flexibility in an all-domain battlespace. Our Navy must be the best when the nation needs it the most. On a daily basis, our objective is to have our fleet sustainably manned, trained, equipped, and integrated into the Joint Force. Deployed forward, we will be ready to meet requirements directed by the Secretary of Defense, the tasking of Combatant Commanders, and be prepared to surge with the Joint Force in crisis. Our fleet will be a potent, formidable force that competes around the world every day, deterring those who would challenge us while reassuring our allies and partners. Joining with the Marine Corps, we will deliver decisive **Integrated American Naval Power** when called.



To do this, we will:

**Improve Ship Depot-Level Maintenance and Modernization.** To responsibly grow and dynamically operate the fleet, we will predictably and effectively maintain the fleet – in peacetime and in support of conflict. As we have learned over the past decade, it is cheaper to maintain readiness than to buy it back. Our toughest near-term challenge is reversing the trend of delivering only 40% of our ships from maintenance on time. As the fleet ages, we must continue to invest deliberately to modernize our weapons, sensors, and platforms to outpace adversary trends. Working with the shipyards and leveraging data analytics to identify and close performance gaps, the Naval Sea Systems Command, supported by the Type Commanders, will deliver a plan in 60 days that develops and sustains the industrial base. We will further develop and implement better productivity metrics and identify the key levers to deliver all depot availabilities on time and in full. Our goal is to improve productivity, reduce lost days through depot availability extensions by 80% in FY20 compared with FY19, and eliminate lost days through depot extensions by the end of FY21.

**Assess Our Force Generation Model.** Recent revisions to the Combatant Commanders' operations plans, the Joint Staff's global campaign plans, and globally integrated base plans will inform the Secretary of Defense's Directed Readiness Tables (DRT). The FY21 DRT will drive the readiness posture of the Joint Force to deploy forces. We will assess our Optimized Fleet Response Plan to ensure our force generation: (i) meets top-down requirements for rotational deployments while providing our Sailors stable, predictable deployment cycles; (ii) meets surge requirements for crises; (iii) provides adequate time to maintain and modernize the fleet; (iv) resets the force after a crisis; and (v) provides accountable logistics support. U.S. Fleet Forces (USFF) will lead this assessment in coordination with Commander Pacific Fleet (CPF) and Naval Forces Europe and Africa (NAVEUR) with results due by January 2020.

**Leverage the Power of the Integrated Fleet.** We fight and win as a team. We are greater when we integrate more closely with the Marine Corps. We will build capability with our most natural partner, tying more closely with the Marine Corps at all levels. Together, we will build Navy-Marine Corps integration by aligning concepts, capabilities, programming, planning, budgeting, and operations to provide Integrated American Naval Power to the Joint Force. Our Deputy Chiefs of Naval Operations (DCNOs) – along with our Echelon II Commanders – will drive this integration with their Marine Corps counterparts. Opportunities include our cyberspace operations, war-game and exercise programs, development of the Naval Tactical Grid, and potential Dynamic Force Employment options.

**Design and Implement a Warfighting Development Campaign Plan.** We will leverage advances in our warfighting capability, by integrating and accelerating them with a Warfighting Development Campaign Plan to provide effective deterrence today and ensure the Navy wins the next war, should it occur. The plan will ensure alignment of the Navy's strategy with higher-level guidance, and provide strategic guidance for the fleet: design, architecture, command, control, communications, computers, cyber, intelligence, surveillance and reconnaissance, and targeting (C5ISR&T) requirements, and resource decisions. It will accelerate Navy institutional learning related to key operational problems; prioritize and align the Navy's analytic efforts; and be fully informed at all levels of classification by intelligence, our own capabilities, and operational plans. OPNAV N7 will provide this plan by January 2020 and subsequently lead implementation.



**Master Fleet-Level Warfare.** Our fleet design and operating concepts demand that fleets be the operational center of warfare. We will learn from fleet battle problems and the Large Scale Exercise (LSE) 2020, then restore annual LSEs as the means by which we operate, train, and experiment with large force elements. Fleet exercises will be led by fleet commanders leveraging operational concepts like Distributed Maritime Operations (DMO), Expeditionary Advanced Base Operations (EABO), and Littoral Operations in a Contested Environment (LOCE). Combined with wargaming, the exercises will serve as the key opportunity for experimentation and the development and testing of alternative concepts. These exercises and experiments will inform doctrine and tactics; future fleet headquarters requirements, capacity, and size; and investments in future platforms and capabilities. As we develop our plans for future LSEs, we will leverage experience from Combatant Command, Joint, and other service exercises to better prepare the Navy to integrate, support, and lead the Joint Force in a future fight. DCNOs will collect lessons from these exercises to inform submissions for Program Objective Memorandum (POM) 23 and beyond.

**Accelerate Performance Improvement.** Intensifying competition requires more from us and yet we cannot expect our budgetary allowances to grow – we have to perform better under these conditions. We will hold ourselves accountable for performing to plan (P2P) across our business practices including force development, force generation, and force employment. We will broadly embrace a P2P mindset, shifting our focus from rearward-looking assessments and activity to forward-looking projections of key outcomes. Our leaders will find the real levers of performance through data-driven insights. When confronted with a barrier to moving a key performance lever, we must remove it or elevate it to a specific leader to address. OPNAV N8 will continue to serve as the lead agent for our P2P efforts.

**Expand our Digital Competitive Advantage.** Effective DMO with integrated platforms, weapons, and sensors requires a new, resilient operational architecture: Joint All Domain Command and Control (JADC2). We will operate and defend this architecture as a warfighting platform, enabling the secure flow of data to gain decision superiority across the Joint Force. We will leverage the power of networks, cloud computing, machine learning, and artificial intelligence – including tactical clouds on our platforms and shore infrastructure – to connect all weapons and sensors. Digitization increases lethality, integrates new technologies, and improves information warfare capabilities. We will also transform our legacy business systems to improve our agility and readiness. We will partner with other services, industry, academia, and our science and technology community to deliver these capabilities. The Navy's Digital Transformation Office will deliver our initial operational framework in coordination with OPNAV N2N6 and supported by the Naval Information Warfare Systems Command, in January 2020. Additionally, OPNAV N2N6 will lead coordination with the Department of the Navy's Chief Information Officer and implement our integrated information management strategy.

**Further Integrate Space, Cyber, Electronic Warfare, and Special Operations Into Fleet Maritime Operations Centers (MOCs).** While MOCs have resident intelligence, cryptologic warfare, communications, and meteorology/oceanography capabilities, fleet staffs must strengthen and synchronize space, full-spectrum cyber, electronic warfare (EW), and information operations (IO) to fight effectively across all domains. We will leverage LSE 2020 to pilot a dedicated Information Warfare cell integrated within a MOC to more effectively execute space, cyber, EW, IO, and special operations forces into all-domain operations and enhance our ability



to operate in denied areas. USFF and CPF, supported by Naval Warfare Development Command (NWDC) and the Information Warfare Type Commander (IW TYCOM), will deliver a plan to achieve this integration in January 2020. This requires more than a “bolt-on” solution, and should not necessarily cause manpower requirements to grow.

The results of LSE 2020 will refine the requirements and timeline for dedicated IW cells in all Fleet MOCs as part of POM 22. Additionally, the IW TYCOM, supported by Fleet Cyber Command/U.S. Tenth Fleet, will develop a plan to field small tactical cyber teams as forces for fleet commanders by February 2020.

**Build Alliances and Partnerships.** While we prepare for the next war and provide effective deterrence in the meantime, we must recognize the fight we are in right now. Though we are not exchanging fire with our competitors, we are battling for influence and positional advantage **today**. Operating and exercising together with allies and partners, our fleet commanders will focus on full interoperability at the high end of naval warfare. We will build on existing maritime intelligence and logistics partnerships with allied nations, and expand relationships with partner nations to broaden and strengthen global maritime awareness and access.

**Assess the Navy’s Ashore Infrastructure Investment Strategy.** Historically, we have assumed significant risk in shore infrastructure investment by diverting funds to increase afloat readiness, future force structure, and other priorities. This risk manifests itself over time with reductions to combat readiness, productivity, and quality of life for our Sailors. The Navy must account for infrastructure investments to support our force. Additionally, today’s networks need to be resilient, agile, extensible, and maneuverable – ashore and afloat – to accomplish the mission. Commander, Navy Installations Command (CNIC) will deliver, by March 2020, an assessment of readiness-based risk in the shore through FY26. Leveraging CNIC’s readiness assessment, OPNAV N4 will generate by April 2020, a long-term strategy to mitigate these risks. This strategy will also inform an enhanced readiness assessment and reporting structure whereby shore readiness forms part of a unified fleet readiness picture assessed by and reported through Fleet Commanders.

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## WARFIGHTERS

**End State:** A world-class naval force through recruitment, education, training, and retention of talented American men and women – a force that also empowers Navy families through the initiatives under the Navy Family Framework 3.0.

To do this, we will:

**Accelerate Ready, Relevant Learning (RRL).** To retain our competitive advantage, I expect that every U.S. Navy Sailor be trained better than his or her Chinese or Russian counterparts. Sailors who enlist today are learning in vastly different ways than in the past. RRL is the Navy’s answer to this cultural reality. From the waterfront, to traditional brick-and-mortar schoolhouses, to mobile devices at home, RRL’s agile learning methods provide what operators need on the deckplates and the flight line to be ready to fight. At the heart of this effort, we will empower Sailors



to master skills critical to naval warfare and we will use technology as a tool to enhance that capability. USFF, as executive agent for RRL, will provide an assessment as described in the Vision and Guidance for RRL by December 2021, focusing on implementation outcomes and promoting alignment between training requirements and budgetary authorities.

**Integrate and Align Naval Education Into Warfighting Development.** Learning is the ultimate warfare enabler and the intellectual development of our Sailors provides our most critical warfighting capabilities. Under the Naval University System, we will prioritize and align academic efforts and resources for all naval education activities to achieve warfighting advantage. Student and faculty research in warfighting concepts and technology will contribute directly towards this end. Longer term, we will instill continuous learning behaviors to broaden and deepen warfighting knowledge which will enable adaptation, improvement, and strengthen mission command to outthink and outfight any adversary. OPNAV N7, in consultation with the Navy's Chief Learning Officer, will provide a naval education strategy by January 2020.

**Mature and Expand Live Virtual Constructive (LVC) Training.** Computational power and tactical clouds are blurring the boundaries between real and simulated training such that these distinctions no longer matter. We must embrace LVC Training to preserve our advantages, allowing units at all stages of force generation to maximize training for high-end warfare. To retain our readiness advantage, OPNAV N9 will continue development of a LVC environment, integrating the intensity of live with high-fidelity synthetic representations. LVC will allow us to optimize training time and enable operators to develop and master tactics, techniques, and procedures in secure, controllable conditions.

**Build on a Culture of Excellence (CoE).** Aiming to simply avoid doing the wrong thing is too low a bar; we will actively pursue the things that are right. The CoE emphasizes signature behaviors, those that capture the high ideals espoused in our Core Values of Honor, Courage, and Commitment. Within the next several months, the Chief of Naval Personnel (CNP) will pilot a comprehensive suite of tools to assist commanders, commanding officers, and the Chiefs' Mess in promoting a CoE. We will use analytics, decision aids, and the assessments provided by the Navy Inspector General to empower leaders to intervene before destructive behaviors arise, make risk decisions, and emphasize the role of character in promoting trust and confidence within the Navy and with the public we defend. Recruit Training Command (RTC) Warrior Toughness Training Initiatives will provide our newest Sailors with the strength and resilience required to achieve a CoE by using a spirit and character-based approach that incorporates mental and physical techniques. This holistic training must continue to evolve, leveraging the most advanced concepts of the behavioral sciences. Further, we must strengthen the Warrior Toughness ethos across a Sailor's entire career such that we never lose the momentum built during initial training.

**Assess our Strategic Depth.** The Navy relies on its reserve component to provide a sustainable source of additional manpower, critical skills, and equipment to deter and defeat our adversaries in all of our nation's conflicts. The Chief of Navy Reserve (CNR) will lead a full assessment of the reserve component's resourcing, manning, mobilization, and capability to meet great power competition demands in coordination with fleet commanders by April 2020.

**Transform Manpower, Personnel, Training, and Education.** CNP conceptualized and rapidly implemented tools to reduce the burdens on Sailors and their families.



We will not stop until our pay and personnel system rivals that of the world's most successful companies. We will continue to use digital applications and cloud computing to free Sailors from the distractions of complex life events that occur during a career of service. We must man our platforms at their stated requirement. CNP will develop a plan by April 2020 to ensure manning wholeness by building and properly allocating the distributable inventory to the fleet, thus minimizing gaps at sea.

**Integrate Decision Science Into Leadership Development.** Advancements in decision science are enabling better decisions at all levels of leadership. Improved decision-making – from the deckplates to the Flag Bridge – is a decisive advantage in stressful conditions, particularly during combat. Further, the quality of decision-making by our leaders enables successful mission command. Decision science will be included in leader development in all levels of training and education to improve our understanding of human judgment and, through that understanding, improve decision-making and leadership. OPNAV N1 (for training) and OPNAV N7 (for education) will provide a plan to integrate decision science into leader development by February 2020.

**Make Cybersecurity Part of our DNA.** Cybersecurity is commanders' business. Commanders need to own it. Commanders will understand the status of their networks and systems and the potential operational risk they are assuming if readiness has degraded. By January 2020, Fleet Cyber Command, supported by Naval Information Forces, will create operational cyber readiness training for all commanders and a standardized cyber readiness dashboard so commanders understand the integrity of the systems upon which they and their forces rely, and the risks they are assuming.

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## FUTURE NAVY

**End State:** A Navy fully prepared to fight and win. Our Navy will be equipped with the right capabilities and numbers to execute our operating concepts. In order to maintain the maritime competitive advantage envisioned in our fleet design, we will ensure the wholeness of combat capable and lethal forces maximizing the benefits of Distributed Maritime Operations, Expeditionary Advanced Base Operations, and Littoral Operations in a Contested Environment. We will develop and field affordable, lethal, numerous, and connected capabilities. We will use experimentation, exercises, and wargames to determine what is required to operate forward – firepower, capacity, command and control, and logistics; build the fleet to match; and train together until we achieve seamlessly integrated combat power across the naval and Joint Force.

To do this, we will:

**Enhance and Exploit our Core Warfighting Advantages.** The Navy's first acquisition priority is recapitalizing our Strategic Nuclear Deterrent. We will continue to drive affordability, technology development, and engineering integration efforts to: (i) support COLUMBIA's fleet introduction on time or earlier; (ii) maintain mastery of the undersea domain; and (iii) sustain a formidable forward presence through our aircraft carrier fleet.



**Develop and Field Platforms and Weapons to Support Precision, Long-Range, Lethal Fires.** Numbers matter. We will fully realize the inherent flexibility of DMO when we provide the capability to mass fires and effects from distributed and networked assets. Setting our operational tempo by the need to aggregate forces limits our responsiveness. We will have an offensive capability from first contact. We will re-examine our force structure and 30-year shipbuilding plans through continuous, integrated assessment with the Marine Corps to define and develop the platforms – both manned and unmanned – needed to provide overwhelming fires to fleet commanders. These capabilities will establish maritime superiority when and where needed. OPNAV N7 will adjust my budget guidance to align with this document and, with DCNOs, make clear-eyed evaluations of the relative warfighting value of Navy programs in this strategic environment. OPNAV N8 and all DCNOs will adjust their programs to meet this end state in POM 22. OPNAV N9 will lead our Warfighting Requirements Process to develop and approve warfighting requirements to achieve a more highly integrated end state.

**Incorporate Manned and Unmanned Teaming (MUM-T) and Autonomy.** The congested and contested operating environments of today will only become more challenging. We will leverage technology to expand our reach, lethality, and warfighter awareness. We will increase funding for experimentation and development of technologies to advance autonomous and MUM-T systems employment in undersea, surface, and air warfare. OPNAV N9 and N4 will develop and incorporate unmanned systems to make the fleet more survivable and resilient, and increase the lethal challenges and operational dilemmas we pose to an adversary, especially in terms of transforming, modernizing, and revolutionizing mine warfare.

**Make Naval Logistics More Agile and Resilient.** Our naval logistics enterprise enables the effective and efficient employment of our forces in dispersed, forward environments across the spectrum of conflict. Repair capabilities, weapons magazines and reload, sustainment and resupply, refueling capability, and the provision of combat medical services to revive our forces will be aligned to support operational requirements of DMO. In conjunction with the Navy's Ashore Infrastructure Investment Strategy, we will examine naval logistics structure, basing, capabilities, and business systems to support the forward fleet, with the goal of driving inventory readiness and accountability as demonstrated through audit. OPNAV N4 will lead this effort in coordination with other DCNOs.

**Bend the Cost Curve.** We have developed exquisite defensive capabilities that have a very high cost-per-shot, designed to defeat threats with a very low cost-per-shot. In an era of constrained budgets and facing competitors with similarly sized economies, and with the low barriers to entry presented by rapid technological development, we must be exceptionally disciplined in allocating resources to improve the offensive power and defensive strength of the fleet. This will include fielding high-return technologies such as directed energy (OPNAV N9) and electronic warfare (OPNAV N2N6).

**Improve Fiscal Stewardship.** Ongoing reform and audit initiatives allow the Navy to better leverage the capital we have, better invest financial resources, and better enable us to deliver more warfighting capability for every tax dollar entrusted to us by the American people. We will relentlessly pursue transparency and accountability in our accounting, business, and inventory systems through audit and evaluation. DCNOs will lead coordination with all Navy budget submission authorities to achieve this goal.



# CONCLUSION

I am confident that we will maximize the Navy we have today while delivering the Navy that our nation will rely upon tomorrow. We will do so with **urgency**. As we focus on the future, we will value and celebrate our heritage. Our Core Values of **Honor, Courage, and Commitment** and our attributes of **Integrity, Accountability, Initiative, and Toughness** will always guide us. They underpin who we are as members of the profession of arms: united by our common oath, dedicated to our special standards of ethics and character, and constantly honing our unique expertise in the art and science of naval warfare.

We will continue to challenge our assumptions. As we do so, we may find areas to adjust within these priorities. I will update this FRAGO when necessary to ensure our efforts remain aligned.

We have much to do. Your tenacity, drive, and initiative will take us where we need to go - and do so at a flank bell.



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Chief of Naval Operations

