

A Design for Maintaining Maritime Superiority

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Mission

The United States Navy will be ready to conduct prompt and sustained combat incident to operations at sea. Our Navy will protect America from attack and preserve America's strategic influence in key regions of the world. U.S. naval forces and operations – from the sea floor to space, from deep water to the littorals, and in the information domain – will deter aggression and enable peaceful resolution of crises on terms acceptable to the United States and our allies and partners. If deterrence fails, the Navy will conduct decisive combat operations to defeat any enemy.

Introduction

For 240 years, the U.S. Navy has been a cornerstone of American security and prosperity. To continue to meet this obligation, we must adapt to the emerging security environment. The initiatives laid out in this Design represent initial steps along a future course to achieve the aims articulated in the revised Cooperative Strategy for 21st Century Seapower (CS-21R) in this new environment. It's a tremendously complex challenge. As we get underway, we must first understand our history - how we got to where we are. Moving forward, we'll respect that we won't get it all right, and so we'll monitor and assess our-selves and our surroundings as we go. We'll learn and adapt, always getting better, striv-ing to the limits of performance. This cannot be a "top-down" effort; everybody must contribute.



Strategic Environment

On the eve of the 20th century, the United States emerged from the Civil War and laid the foundation to become a global power, but its course to continued prosperity was unclear. Navy Capt. Alfred Thayer Mahan helped to chart that course, arguing that American growth required access to overseas markets, which in turn required a preeminent navy to protect that access. America became a nation with global interests, and the seas were the path to new frontiers.

The essence of Mahan's vision still pertains: America's interests lie beyond our own shores. What was true in the late 19th century holds true today – America's success depends on our creativity, our entrepreneurship, and our access and relationships abroad. In an increasingly globalized world, America's success is even more reliant on the U.S. Navy.

In fulfilling our mission, it's important to start with an assessment of the security environment. It is tempting to define the challenge solely in terms of our allies, partners, and competitors – the state and non-state actors on the world stage. While these are critical, it is even more important to understand the dramatic changes that have taken place on the stage itself – the character of the environment in which competition and cooperation occur. Fundamentally, the world has become dramatically more globalized, and this trend is accelerating. Our way ahead must account for this new reality. In particular, this Design will address three major and interrelated global forces that are increasingly used, increasingly stressed, increasingly important, and increasingly contested. These three forces energize the quickly changing environment in which the Navy must operate, and if required, fight and win.

The first global force is the traffic on the oceans, seas, and waterways, including the sea floor – the classic maritime system. For millennia, the seas have served to connect people and societies to help them prosper. As the global economy continues to expand and become more connected, the maritime system is becoming increasingly used by the United States and the world as a whole. Shipping traffic over traditional sea lanes is increasing, new trade routes are opening in the Arctic, and new technologies are making undersea resources more accessible. This maritime traffic also includes mass and uncontrolled migration and illicit shipment of material and people. The maritime system is becoming more heavily used, more stressed, and more contested than ever before.

A second increasingly influential force is the rise of the global information system – the information that rides on the servers, undersea cables, satellites, and wireless networks that increasingly envelop and connect the globe. Newer than the maritime system, the information system is more pervasive, enabling an even greater multitude of connections between people and at a much lower cost of entry – literally an individual with a computer is a powerful actor in this system! Information, now passed in near-real time across links that continue to multiply, is in turn driving an accelerating rate of change – from music to medicine, from microfinance to missiles.

The third interrelated force is the increasing rate of technological creation and adoption. This is not just in information technologies, where Gordon Moore's projections of exponential advances in processing, storage, and switches continue to be realized. Scientists are also unlocking new properties of commonplace materials and creating new materials altogether at astonishing speeds. Novel uses for increasingly sophisticated robotics, energy storage, 3-D printing, and networks of low-cost sensors, to name just a few examples, are changing almost every facet of how we work and live. Genetic science is just beginning to demonstrate its power. Artificial intelligence is just getting started and could fundamentally reshape the environment. And as technology is introduced at an accelerating rate, it is being adopted by society just as fast – people are using these new tools as quickly as they are introduced, and in new and novel ways.

These three forces – the forces at play in the maritime system, the force of the information system, and the force of technology entering the environment – and the interplay between them have profound implications for the United States Navy. We must do everything we can to seize the potential afforded by this environment. Our competitors are moving quickly, and our adversaries are bent on leaving us swirling in their wake.

And the competitors themselves have changed. For the first time in 25 years, the United States is facing a return to great power competition. Russia and China both have advanced their military capabilities to act as global powers. Their goals are backed by a growing arsenal of high-end warfighting capabilities, many of which are focused specifically on our vulnerabilities and are increasingly designed from the ground up to leverage the maritime, technological and information systems. They continue to develop and field information-enabled weapons, both kinetic and non-kinetic, with increasing range, precision and destructive capacity. Both China and Russia are also engaging in coercion and competition below the traditional thresholds of high-end conflict, but nonetheless exploit the weakness of accepted norms in space, cyber and the electromagnetic spectrum. The Russian Navy is operating with a frequency and in areas not seen for almost two decades, and the Chinese PLA(N) is extending its reach around the world.

Russia and China are not the only actors seeking to gain advantages in the emerging security environment in ways that threaten U.S. and global interests. Others are now pursuing advanced technology, including military technologies that were once the exclusive province of great powers – this trend will only continue. Coupled with a continued dedication to furthering its nuclear weapons and missile programs, North Korea's provocative actions continue to threaten security in North Asia and beyond. And while the recent international agreement with Iran is intended to curb its nuclear ambitions, Tehran's advanced missiles, proxy forces and other conventional capabilities continue to pose threats to which the Navy must remain prepared to respond. Finally, international terrorist groups have proven their resilience and adaptability and now pose a long-term threat to stability and security around the world. All of these actors seek to exploit all three forces described above – the speed, precision and reach that

the maritime and information systems now enable, bolstered by new technologies – to counter U.S. military advantages and to threaten the rules and norms that have been the basis of prosperity and world order for the last 70 years.

There is also a fourth ‘force’ that shapes our security environment. Barring an unforeseen change, even as we face new challenges and an increasing pace, the Defense and Navy budgets likely will continue to be under pressure. We will not be able to “buy” our way out of the challenges that we face. The budget environment will force tough choices but must also inspire new thinking.

Looking forward, it is clear that the challenges the Navy faces are shifting in character, are increasingly difficult to address in isolation, and are changing more quickly. This will require us to reexamine our approaches in every aspect of our operations. But as we change in many areas, it is important to remember that there will also be constants. The nature of war has always been, and will remain, a violent human contest between thinking and adapting adversaries for political gain. Given this fundamental truth, the lessons of the masters – Thucydides, Clausewitz, Sun Tzu, Mao, Corbett, and, yes, Mahan – still apply. America’s importance to the world holds fast. Our nation’s reliance on its Navy – our Navy – continues to grow.

Why a “Design?”

The scope and complexity of the challenges we face demand a different approach than that offered by a classic campaign plan. This guidance frames the problem and a way forward while acknowledging that there is inherent and fundamental uncertainty in both the problem definition and the proposed solution.

Accordingly, we will make our best initial assessment of the environment, formulate a way ahead, and move out. But as we move, we will continually assess the environment, to ensure that it responds in a way that is consistent with achieving our goals. Where necessary, we will make adjustments, challenging ourselves to approach the limits of performance.

This Design for Maintaining Maritime Superiority will guide our behaviors and investments, both this year and in the years to come. More specific details about programs and funding adjustments will be reflected in our annual budget documents.

Core Attributes

One clear implication of the current environment is the need for the Navy to prepare for decentralized operations, guided by commander's intent. The ability to achieve this end is reliant on the trust and confidence that is based on a clear understanding, among peers and between commanders and subordinates, of the risk that can be tolerated. This trust and confidence is enhanced by our actions, which must reflect our core values of Honor, Courage, and Commitment. Four core attributes of our professional identity will help to serve as guiding criteria for our decisions and actions. If we abide by these attributes, our values should be clearly evident in our actions.

- **INTEGRITY:** Our behaviors as individuals and as an organization align with our values as a profession. We actively strengthen each other's resolve to act consistently with our values. As individuals, as teams, and as a Navy, our conduct must always be upright and honorable both in public and when nobody's looking.
- **ACCOUNTABILITY:** We are a mission-focused force. We achieve and maintain high standards. Our actions support our strategy. We clearly define the problem we're trying to solve and the proposed outcomes. In execution, we honestly assess our progress and adjust as required – we are our own toughest critic.
- **INITIATIVE:** On their own, everybody strives to be the best they can be – we give 100% when on the job. Our leaders take ownership and act to the limit of their authorities. We foster a questioning attitude and look at new ideas with an open mind. Our most junior teammate may have the best idea; we must be open to capturing that idea.
- **TOUGHNESS:** We can take a hit and keep going, tapping all sources of strength and resilience: rigorous training for operations and combat, the fighting spirit of our people, and the steadfast support of our families. We don't give up the ship.



Four Lines of Effort

The execution of this Design is built along four Lines of Effort that focus on warfighting, learning faster, strengthening our Navy team, and building partnerships. These lines of effort are inextricably linked and must be considered together to get a sense of the total effort. The corresponding objectives and first year tasks listed under each line of effort define how we will begin to move forward.

STRENGTHEN NAVAL POWER AT AND FROM SEA: Maintain a fleet that is trained and ready to operate and fight decisively – from the deep ocean to the littorals, from the sea floor to space, and in the information domain. Align our organization to best support generating operational excellence.

1. Maintain and modernize the undersea leg of the strategic deterrent triad. This is foundational to our survival as a nation.
2. In partnership with the Marine Corps, develop concepts and capabilities to provide more options to national leaders, from non-conflict competition to high-end combat at sea. Operations short of conflict should be designed to contain and control escalation on terms favorable to the U.S. Combat at sea must address “blue-water” scenarios far from land and power projection ashore in a highly “informationalized” and contested environment. All scenarios must address the threat of long-range precision strike. Test and refine concepts through focused wargaming, modeling, and simulations. Validate these concepts through fleet exercises, unit training and certification.
3. Further advance and ingrain information warfare. Expand the Electromagnetic Maneuver Warfare concept to encompass all of information warfare, to include space and cyberspace.
4. To better meet today’s force demands, explore alternative fleet designs, including kinetic and non-kinetic payloads and both manned and unmanned systems. This effort will include exploring new naval platforms and formations – again in a highly “informationalized” environment – to meet combatant commander needs.
5. Examine the organization of United States Fleet Forces Command, Commander Pacific Fleet and their subordinate commands to better support clearly defining operational and warfighting demands and then to generate ready forces to meet those demands.
6. Examine OPNAV organization to rationalize our headquarters in support of warfighting requirements.



ACHIEVE HIGH VELOCITY LEARNING AT EVERY LEVEL: Apply the best concepts, techniques and technologies to accelerate learning as individuals, teams and organizations. Clearly know the objective and the theoretical limits of performance – set aspirational goals. Begin problem definition by studying history – do not relearn old lessons. Start by seeing what you can accomplish without additional resources. During execution, conduct routine and rigorous self-assessment. Adapt processes to be inherently receptive to innovation and creativity.

1. Implement individual, team and organizational best practices to inculcate high velocity learning as a matter of routine.
2. Expand the use of learning-centered technologies, simulators, online gaming, analytics and other tools as a means to bring in creativity, operational agility and insight.
3. Optimize the Navy intellectual enterprise to maximize combat effectiveness and efficiency. Reinvigorate an assessment culture and processes.
4. Understand the lessons of history so as not to relearn them.

STRENGTHEN OUR NAVY TEAM FOR THE FUTURE: We are one Navy Team – comprised of a diverse mix of active duty and reserve Sailors, Navy Civilians, and our families – with a history of service, sacrifice and success. We will build on this history to create a climate of operational excellence that will keep us ready to prevail in all future challenges.

1. Aggressively pursue implementation of the core tenets of the “Sailor 2025” program – fully integrated and transparent data and analytics, increased career choice and flexibility, expanded family support, and tailored learning.
2. Accelerate “Sailor 2025” efforts to leverage information technology to enhance personnel system and training modernization efforts.
3. Strengthen and broaden leadership development programs to renew and reinforce the Navy Team’s dedication to the naval profession. Leader development will be fleet-centered and will begin early in our careers, focusing on character and commitment to Navy core values. Character and leadership will be rewarded through challenging assignments and advancement.
4. Strengthen organizational integrity by balancing administrative requirements with the benefits gained from the time spent. The goal will be to return more time to leaders and empower them to develop their teams.
5. Strengthen the role of Navy leaders in leading and managing civilian professionals as key contributors to the mission effectiveness of our Navy Team.

EXPAND AND STRENGTHEN OUR NETWORK OF PARTNERS: Deepen operational relationships with other services, agencies, industry, allies and partners – who operate with the Navy to support our shared interests.

1. Enhance integration with our Joint Service and interagency partners at all levels of interaction to include current and future planning, concept and capability development and assessment.
2. Prioritize key international partnerships through information sharing, interoperability initiatives, and combined operations; explore new opportunities for combined forward operations.
3. Deepen the dialogue with private research and development labs, and academia. Ensure that our Navy labs and research centers are competitive and fully engaged with their private-sector partners.
4. Increase the volume and range of interaction with commercial industry. Seek opportunities through non-traditional partners.

Desired Outcome

A Naval Force that produces leaders and teams who learn and adapt to achieve maximum possible performance, and who achieve and maintain high standards to be ready for decisive operations and combat.

Conclusion

We will remain the world's finest Navy **only** if we all fight each and every minute to get better. Our competitors are focused on taking the lead – we must pick up the pace and deny them. The margins of victory are razor thin – but decisive! I am counting on your integrity, accountability, initiative, and toughness to execute the lines of effort described in this Design, execute our mission, and achieve our end state. I am honored and proud to lead you.



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