



CARDINAL HEADINGS *for* SURFACE WARFARE





MISSION

Deliver and sustain a full-spectrum surface combat force.

VISION

Remain the world's most combat effective, technically advanced, and resilient Surface Navy.



CHANGES AND CONSTANTS

The history of the United States Navy's Surface Force has been a story of technological change – from sail to steam to nuclear power; from smooth-bore cannons to guided missiles. Two centuries have also brought great shifts of strategic focus for the Navy – from Atlantic trade routes to globalization.

While U.S. Navy history is a story of change, that change is underpinned by foundational truths that have remained constant. First and foremost, the U.S. Navy exists to support and defend the Constitution and the country whose course it directs. Beyond this most fundamental mission, whether challenging the Barbary States in the 1800s or containing the Soviet Union during the Cold War, the Navy has ensured freedom of the seas for American commerce and exploration, as well as freedom of movement for U.S. forces in time of war. These missions remain foundational as our nation continues its rebalance toward the Asia-Pacific region, and are aligned with the CNO's tenets of Warfighting First, Operate Forward, and Be Ready. They will remain constant throughout any future strategic shift. To succeed in these missions, the Surface Force must maintain credible combat forces to reassure our allies, discourage potential adversaries and, most importantly, win when called upon to fight.

THE PURPOSE OF CARDINAL HEADINGS

Being the world's most powerful Navy requires considerable conscious, sober thinking. Decisions made today can have lasting effects for decades, both positive and negative. The fleet requires the most combat-capable ships we can reasonably afford. Our ships must be sufficiently manned with well-trained, well-led crews. Such tasks are challenging in the best of financial times. The nation's interests cannot be served without solid, comprehensive guidance and detailed, realistic, risk-informed planning. The purpose of this document is to guide decisions regarding the development of the future Surface Force. Its companion document, the Surface Force Master Plan, is the link between Cardinal Headings and our current force; it is an operational view of how we intend to execute our moral and legal duty to provide forces capable of prompt and sustained combat operations at and from the sea over the years to come.



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PART I: CONTEXT

“The Navy shall be organized, trained, and equipped primarily for prompt and sustained combat incident to operations at sea.”

10 USC Sec. 5062

INTRODUCTION

Congressional direction for the U.S. Navy to be prepared to conduct prompt and sustained combat operations at sea in support of national interests serves as our foundational requirement. Everything else is derived from this.

PROMPT

U.S. Navy ships operate forward, so as to be at the point of interaction in time to influence the course of events in our favor. To reassure allies and deter adversaries, we must arrive on scene rapidly with credible combat power. To succeed, we must be able to effectively employ our combat power



toward defeating our adversaries.

To achieve these aims, we must have well-armed, ready ships with tactically proficient leadership and well-trained crews. Further, the commanding officers of our ships must have the cognitive agility and moral fortitude to function independently in uncertain circumstances with poor or no communications with higher authority. Providing such ships and crews requires high operational availability while on station and effective, embedded and externally supported training.

SUSTAINED

As we operate forward, often independently, our ships must be able to fight through and beyond the first salvos with little or no direct support. The technological complexity of today’s ships, combined with the imperative to most efficiently use our finite resources, makes the goal of self-sufficiency of our ships more challenging than ever. The key to achieving self-sufficiency is highly trained and skilled Sailors.



Being able to sustain combat operations also means that hard decisions must be made when procuring ships and weapon systems. We must increase operational availability over time and reduce total ownership costs, even if it requires more money at initial purchase. We must balance capability and capacity when buying weapon systems, with



an eye toward reserving space, weight, and power for future capabilities not envisioned today.

Affordable combat and weapons systems solutions must be a part of the equation.

Finally, we must have systems and a culture that produces the warrior ethos, technical agility, and expertise to fight through the challenges of sustained combat operations wherever those operations may take us. We must also provide the logistic and maintenance support required to keep them in the fight or quickly return them to the fight if need be.

ASSUMPTIONS

Assumptions must be made to guide planning. Derived from higher level guidance and supplemented by the judgment of the Surface Flag leadership, we make the following assumptions:

Assumption: *A number of littoral states will gain in power and influence, and they will build fleets to protect their interests.*

Implication: Interactions among states (and non-state actors) will drive maritime national security complexity, and the unique role of the U.S. Surface Force in our national security will remain crucial. This role will be performed by both forward-deployed and forward-stationed surface combatants and amphibious warships.

Assumption: *Resource scarcity will continue to dominate fiscal decisions.*



Implication: Regardless of the budget environment in any given year, the Surface Force will be judicious in its fiscal decisions to ensure the operational availability of our ships and systems across their expected service lives. Considering all platform and system decisions in the context of their total ownership costs is an ongoing imperative and may necessitate greater initial investments to reduce ownership costs. The reduced size of the Surface Force fleet requires each ship to be more adaptable while leveraging technology to enhance agility across an expanding range of surface warfare requirements.

Assumption: *The U.S. Navy will continue to carry out its peacetime missions in concert with friends, allies and other like-minded maritime nations. In war, it will operate alongside navies with which it has established peacetime operational relationships.*

Implication: Interoperability and integration with partner navies will continue to improve. Our systems will interoperate more seamlessly, and mutually important tactics, techniques and procedures should continue to be developed.

Assumption: *The Navy will continue to operate as part of a Joint Force, and its primary partner will be the U.S. Marine Corps.*

Implication: The Navy and Marine Corps will become more integrated, and this team will



It takes well-trained Sailors, operating properly engineered, built and equipped ships to put credible combat power to sea — and those ships must be properly maintained. Without ships of this character we have no effective Navy.

continue to be called upon to protect and advance American interests. The two services will field and operate common technologies wherever possible, and the increased integration will result in a more widely varying number of ships embarking Marines.

Assumption: *Adversaries will continue to hone their ability to deny freedom of maneuver to U.S. Forces.*

Implication: Our investments in hardware, training, and

education will account for the fact that our adversaries will attempt to deter us from using all of the sea and

air space guaranteed to us under international law, and they will always be working to improve their capability, capacity, and concepts of operation to defeat us in war.

Assumption: *The Surface Navy will continue to provide a considerable portion of the nation's Ballistic Missile Defense (BMD) architecture, capability, and capacity.*



Implication: BMD-capable combatants will be in high demand for the foreseeable future and our resource planning will factor in this enduring mission.

Assumption: *Pressures will exist—both internal and external—which if unmitigated, will tend to hollow the force.*

Implication: Surface Force leadership will closely monitor the relationship between force structure and our ability to man, train, and equip that which we operate. Critical to this task will be the effective



scheduling and resourcing of maintenance and modernization to achieve the expected service life from the ships we operate, keeping combat systems relevant and engineering plants healthy. To do this, we will produce Surface Force “wholeness,” which means ensuring today’s ships can sail and fight together seamlessly, with every system working as designed and properly fielded, equipped, manned, trained, maintained, sustained, modernized, and deployed.



PART II: ACQUISITION AND MAINTENANCE; READY FORCES NOW WHILE PLANNING FOR THE FUTURE

BUILDING THE RIGHT SHIP AT THE RIGHT COST

Ships built today must be cost effective and deliver credible combat capability and capacity over their entire expected service lives – up to forty years for capital ships. The Navy cannot afford to allow ships to lose relevance and be decommissioned prematurely. Each ship in the fleet matters. It is important to note that today's major surface combatants and most amphibious warships were designed to counter the Soviet Navy during the Cold War. They were designed with enough capacity to remain relevant and healthy through changing maritime strategies. This is the standard to which U.S. Navy ships must be built.

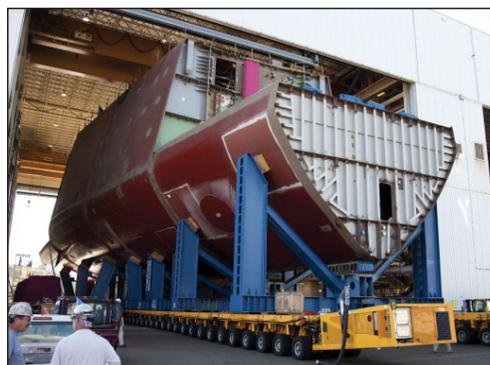
Proven ship designs with the capacity to remain relevant into the future will continue to be built. Using these proven designs enables total ownership cost savings and increased combat effectiveness of the entire fleet, as commonality enables

efficient maintenance and logistic support, efficient and effective training, and greater institutional knowledge of capabilities and limitations. Synchronized modernization (and maintenance) plans will be developed and executed with the cooperation of the various resource sponsors and program offices that support surface combatant and amphibious combat capability over time.



New ship models, those in development and those yet to be conceived, will be built with the modernization and sustainability inherent in the design. Technological change continues apace, and to not factor change into a design dooms it to early irrelevance. Sustained combat

operations as well as affordability over a given ship class's expected service life both necessitate a focus during the early stages



of requirements determination on affordable lifecycle costs, enhanced reliability, and the ability of the ship and crew to operate forward for sustained periods. In cases where designs can be simplified to reduce vulnerability to technical advances, while still achieving the mission, the simpler design must be seriously considered. In other cases, this may lead to additional costs at the time of purchase, but the value over an expected service life must be weighed more heavily than the initial "sticker" price. Most importantly, new ships must provide for modular

payloads with common interfaces and the volume, cooling, electrical power, and survivability to effectively incorporate new payloads throughout a ship's service.



SUSTAINMENT

To achieve the expected service life of our ships while controlling costs requires a firm and steady strain approach to maintenance. We will use a methodical, engineering-based approach to maintenance, and we will fund that maintenance. Such an approach will increase the operational availability of ships, and it will ultimately cost the American taxpayer less money.

Sustaining combat operations in the far corners of the globe requires the Surface Force to be actively engaged in developing much-needed shore support infrastructure and the continuing operational

excellence and professionalism of the Combat Logistics Force. We cannot function without shore and at-sea logistics support; we must remain constructively engaged in these

areas. The Navy's ability to rapidly move people, equipment, supplies, and ammunition to and from anywhere in the world, as required, is a capability and capacity we cannot afford to sacrifice.

WEAPONS

Surface combatants play a critical role in overall military success by providing defense of amphibious and aviation high-value assets. That said, we will energetically develop and field offensive weapons for our



surface combatants, ensuring the surface fleet remains successful in future fights. Our ships are dispersed across the globe, often alone. They will, in many cases, be the first U.S. military forces on the scene. Their ability to deter conflict will be directly proportional to their combat capability and resiliency, and their combat capability is directly linked to their ability to prevail in any fight. As with ship modernization, the surface fleet will develop modernization plans for weapon systems so that the ability to hold the enemy at risk – in addition to being able to defend against enemy weapons – is maintained over time. The Surface Navy must always be able to take the fight to the enemy, with precision and speed.

As with ships, total ownership costs and future relevance will be considered when purchasing weapon systems. In

general, we will purchase systems that are on the right side of the cost curve while maintaining combat effectiveness.

If the acme of skill is to win

without having to fight, as Sun Tzu said, then losing without having the opportunity to fight is the acme of failure. We cannot afford to fail.

During years of austere defense budgets after the Vietnam War, the U.S. Navy was actively developing the Aegis Weapon System. When budgets were restored in the 1980s, the Navy was positioned to procure a ground-breaking weapons system that provided dominating combat capability for years to come. As we move forward, regardless of the budget conditions in a given year, research and development money will be spent on those technologies that hold promise for military effectiveness and those that also conserve precious fiscal resources.



PART III: MANPOWER AND TRAINING; TARGETED INVESTMENT

John Paul Jones observed that men mean more than guns in the rating of a ship. That truism still holds. As threats to global security evolve, so must the Surface Navy and its Sailors. Today's force is the most educated and diverse group in the history of the Surface Navy. We must use their creativity, varied backgrounds, and strengths to succeed as a military force.



SHAPE THE FORCE TO ENSURE THE RIGHT PEOPLE ARE IN THE RIGHT JOBS

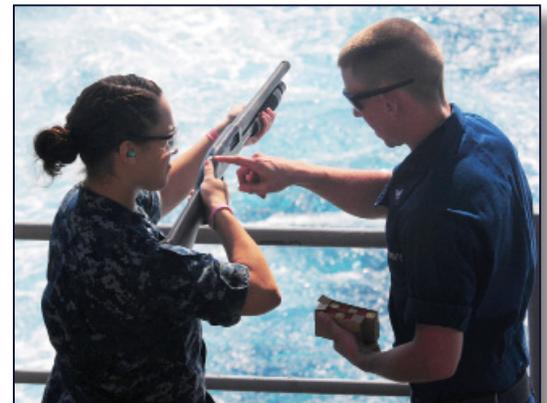
Recruiting and retention rates will ebb and flow with the state of the economy, but our requirements for



ships that are fully manned with skilled Sailors will remain constant. In this respect, we are

a vertically integrated enterprise. We take raw material from the civilian world, and we develop these human resources through each tour into highly skilled technicians and eventually leaders with technical and tactical skills. Our Sailors must have quality training from initial entry through senior-level courses to gain the skills required for mission success. We will work to ensure that each Sailor is given enriching shore tours, so that they are more capable when they return to sea duty.

Ships are designed to operate with a specific number of Sailors. We will man our ships to the required number of personnel possessing the required skill sets. Since manpower is the largest single cost-driver for the Surface Force, we will seek to drive down the required number of Sailors on ships through technical innovation and alterna-



tive concepts associated with at-sea operations. The text book example of innovation driving down manpower was the shift from steam to gas turbine propulsion, which reduced manning requirements on ships by hundreds of Sailors. It is important to sequence the manning reductions properly. The ability to reduce manning because of a technological change comes first, and then the manpower is reduced. We will no longer reduce manpower first, hoping that innovation will follow.



TRAINING PARADIGM

Our mission is to be prepared to conduct combat operations. Our integrated and advanced training will be focused on preparations for high-level combat operations. Our officers and enlisted personnel will be developed over their careers using a holistic approach with a deep, solid foundation in the basics of naval warfare, and they will be trained to have the cognitive agility to “land on their feet”



inside a chaotic situation, pivot to the task at hand and carry the day. We must be able to fight and win high-end wars, as well as successfully complete the tasks associated with today’s mission set.

To achieve this, we will balance live and synthetic training. Synthetic training is not simply a cost-saving measure. It gives us the ability to simulate raid sizes, water column conditions, and other variables and risks related to the complexities of major war that we cannot recreate in live training.



SURFACE FORCE

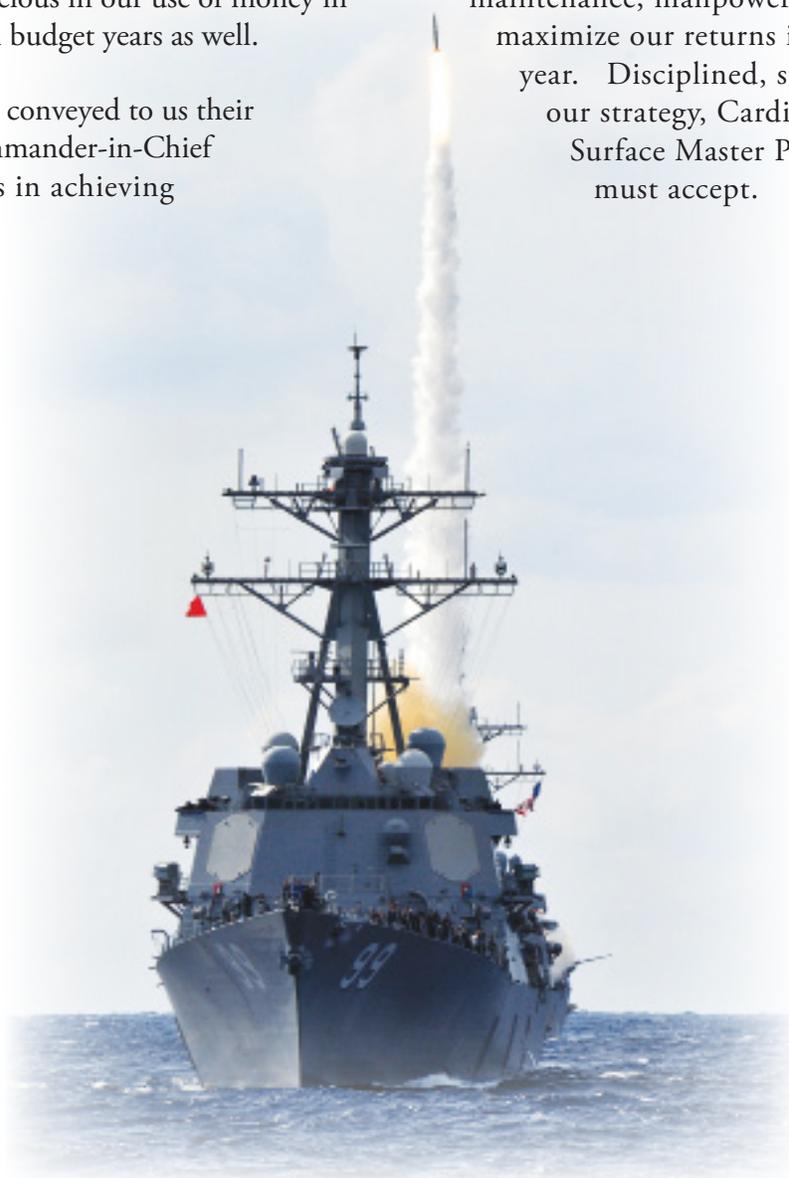


SUMMARY

Building a surface fleet that is prepared to conduct prompt and sustained combat operations globally is a tremendous challenge. To meet this challenge over time, with budgets that rise and fall, we must align our thinking across the Surface Warfare Enterprise to develop platforms and new systems smartly and ensure that we man our ships properly with trained Sailors and Officers. We must be judicious in our use of money in times of plenty and in lean budget years as well.

The American people have conveyed to us their expectations, and the Commander-in-Chief has outlined his priorities in achieving

them. We have completed a frank assessment of our environment and we recognize those elements in the world which we can leverage in our interest and those against which we will have no choice but to adapt. The Surface Force Master Plan will holistically lay out programmatic decisions related to acquisition, modernization, maintenance, manpower, and training to maximize our returns in any given budget year. Disciplined, sustained adherence to our strategy, Cardinal Headings, and the Surface Master Plan is a challenge we must accept.



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