



NAVY LEAGUE OF
THE UNITED STATES



2023-2024 MARITIME POLICY





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The Navy League’s Maritime Policy statement is produced by the organization’s Maritime Policy Committee. The analyses and recommendations therein are derived from multiple sources, including the expertise and decades of experience of our members, open-source materials and public information from the seagoing services. The views expressed in this document are those of the Navy League of the United States and do not necessarily reflect the official views of the U.S. Navy, Marine Corps, Coast Guard or Maritime Administration.

EXECUTIVE SUMMARY

America's economic prosperity and national security depend on free access to global sea lanes and oceanic shipping routes, a reality recognized by President Theodore Roosevelt, who assisted in the founding of the Navy League of the United States as a means of ensuring that Americans never forget how their supplies and

products reach our shores, how we defend our national interests and global trade through maritime forward presence, and how we keep our enemies an ocean's length away. The Navy League of the United States exists to educate the American public about the importance of the sea services to include the Navy, Marine Corps, Coast Guard, and U.S.- flag Merchant Marine.

Over the past two years our nation has experienced four major dynamic events that have irrevocably changed us as a nation and as a member of the global community. These have been: (1) the COVID-19 pandemic; (2) the end of the war in Afghanistan; (3) the changeout of the US Administration in 2020; and (4) the Russian invasion of Ukraine. These four events have impacted our citizenry and polity and have changed the dynamics of the geopolitical and geo-strategic playing fields in a dramatic fashion. Such tectonic events have resulted in a recent change to the existing National Defense Strategy (NDS). The four new Defense priorities paint a decidedly more threat-based response for the US Defense Department:

- Defending the homeland, paced to the growing multi-domain threat posed by the PRC [People's Republic of China]
- Deterring strategic attacks against the United States, Allies, and partners
- Deterring aggression, while being prepared to prevail in conflict when necessary, prioritizing the PRC challenge in the Indo-Pacific, then the Russian challenge in Europe, and
- Building a resilient Joint Force and defense ecosystem (in accordance with the 2022 National Defense Strategy Fact Sheet)

However, with a rising China and bellicose Russia, the U.S. no longer enjoys a monopoly on sea control or sea power and mere numbers of maritime assets may no longer be the most effective measure of maritime strength.

Other adversarial regimes such as North Korea and Iran persist in taking actions that threaten regional and global stability. With these growing threats as a backdrop and the new NDS guidance set forth above, our maritime forces must now craft a robust, flexible, and fiscally achievable force that can meet all challenges and threats across a broad range of operational and tactical options. This will be no small task moving forward.

The United States is a maritime nation — this is an inescapable fact. Article I, Section 8 of the Constitution directs Congress “to provide and maintain a Navy,” proving our Founding Fathers recognized nearly 250 years ago that a strong Navy was the most reliable guarantor of U.S interests at home and abroad. The U.S. Navy protects our waterways and sea lanes, ensuring the free movement of goods and services across the globe. It is forward-deployed, dissuading potential adversaries, assuring allies, and building partnerships. The U.S. Navy ensures robust maritime logistics remain intact in times of conflict to support the other services, especially in a contested modern, multi-domain environment. The U.S. Navy is also a first responder to any global crisis. It should also be mentioned that investing in America's Navy, and the industrial base which underpins our sea services, generates jobs, expands the pool of skilled American workers, and generates secondary and tertiary economic benefits. The national and economic security provided by our naval presence serves as the bedrock for American prosperity now and for generations into the future.

As the Navy is forced to confront near-peer competitors, it is refocusing on its core missions while reimagining operational concepts by implementing distributed maritime operations. Instead of maritime forces concentrated around large capital ships, the Navy has embarked on a broad plan to distribute and disaggregate its maritime forces across the whole maritime operating area. Along with increasing the lethality and survivability of U.S. maritime forces, this complicates enemy decision-making. To successfully implement this strategy, the Navy must modernize while restoring readiness and increasing capacity. It must continue major investments in research and development, in addition to expanding the size of the fleet and the capability of its platforms. To that end, Chief of Naval Operations Adm. Michael Gilday has released his Force Design 2045 in his NAVPLAN 2022 that sets forth the Navy's future force structure goals in not only capacity but also in capability. Recent dramatic expansion of the Chinese maritime fleet of new warships, aircraft carriers, and

“Such focus on the maritime domain by the United States may be the best guarantee of deterring war and ensuring prosperity for all.”

- To Provide and Maintain a Navy,
Capt. Henry J. Hendrix, U.S. Navy (ret.)



submarines makes it an imperative that our nation grow the current fleet of ships, including a robust inclusion of unmanned surface, subsurface, and aerial assets.

The Navy League strongly supports the bold leadership of the 38th Commandant of the Marine Corps and his Planning Guidance and Force Design 2030 strategy, which provides the framework for his vision of focused sea control and denial in the littoral environment. Under this leadership, the Corps is getting lighter, more agile and more mobile to pursue amphibious operations across all maritime regions. To achieve this, the service has proposed significant divestitures to reduce total end strength, with emphasis on units such as tank and heavy airlift. It is also planning on the addition of unmanned air and sea systems and is laser-focused on developing long-range precision fires. However, the Navy-Marine Corps team will not be able to build the maritime forces of the future without support from Congress. This means not just providing money to support the force of the future, but also not opposing divestments in systems and infrastructure based on an aversion to embracing new and innovative fighting concepts designed to prevail against a 21st century near-peer adversary.

As the premier global multi-mission maritime force, the Coast Guard provides an unparalleled return on taxpayer investments. Demands on its 11 statutory missions continue to grow, from law enforcement and fisheries protection, to search and rescue and national defense. Additional funds are needed to meet these growing prerogatives while maintaining basic operations. The Coast Guard also needs investment in information technology and cybersecurity to secure the Maritime Transportation System, through which \$5.4 trillion in annual economic activity flows. After making do with 30- to 40-year-old ships, the service is successfully integrating new vessels, but consistent funding must continue for full recapitalization of the backbone of its oceangoing fleet and inland waterways vessels. Thanks to Congress, the Coast Guard is building Arctic capacity with a new heavy icebreaker, but it is on a tight timeline for deploying to the fleet. The service will ultimately need six icebreakers to meet the demands of the nation.

The U.S.-flag Merchant Marine, the umbrella term for all civilian government-owned and commercial ships under the U.S. flag, is the unseen foundation of our economy and armed forces. National Security Directive 28 (NSD 28) calls for the government to “ensure that the U.S. maintained the capability to meet sealift requirements in the event of crisis or war,” and we are currently falling short of that goal. Government-owned sealift fleet capacity and readiness has fallen to dangerous levels and tanker capacity is severely limited. U.S. mariners are the best in the world, trained at the national Merchant Marine Academy, six state academies and unlicensed schools, but the inventory post-COVID is barely sufficient to operate the peacetime fleet. The Maritime Administration (MARAD) estimates

our nation would require an additional 1,839 mariners in the event of a prolonged crisis. There are many options available for building the health of the fleet, and the U.S. Maritime Transportation System, but they will require attention and investment from the nation. Given that these investments will safeguard 30% of gross domestic product and over 650,000 jobs (according to figures from the American Maritime Partnership), the Navy League believes that the return on investment is more than sufficient.

Ultimately it is people — men and women, sons and daughters, spouses and military families — that make up the core of the sea services. With a smaller and smaller pool of citizens serving, the sea services must build inclusive systems and infrastructure, along with robust youth programs to educate and attract the best and brightest from the burgeoning generations eager to take their place alongside the patriots of the past. We must not only attract new talent, but we must also retain the dedicated and talented men and women who choose to serve by remembering that their families also serve, and provide the critical support prescribed by such sacrifice.

In a time of growing threats, it is imperative that American leadership acknowledge we cannot go it alone. To that end, it is long overdue that the United States ratify the United Nations Convention on the Law of the Sea (UNCLOS), an international convention that establishes the basis for maritime rules. Our country utilizes it, and our leaders cite it, but we are not a party to it. Ratifying the Law of the Sea will give us greater legal leverage when confronting China’s aggressive illegal fishing practices or Russia’s attempts to dominate natural resource extraction in the Arctic.

For the first time, we have decided to include a small section to address the current and future challenges posed by climate change. Climate change is no longer relegated to the realm of stuffy academic discussions—this is a clear and present danger to our planet, and it has been elevated to the status of an existential threat to the security of our nation and the rest of the world. From a maritime perspective, the ramifications of climate change over the next several decades could be profound, impacting the world’s sea ports and maritime trade on a global economic scale. All Americans must understand the dire consequences of failing to address climate change and we must be prepared to make the hard decisions necessary to secure our nation from its effects.

The sea services’ ability to meet the 21st century’s challenges are within reach and do not require unrealistic amounts of funding or technological improvement. But they require the support of Congress, the understanding of our fellow Americans, and the continued advocacy of policymakers. They also require sustained, stable, and predictable funding. Throughout this document, we shall provide you with the rationale, justification, and national/economic security implications of specific investments in our vital sea services.

AMERICAN SEA POWER

Enduring and Emerging Missions for Peace and Prosperity

The growing complexity of the 21st century threat environment will be most acutely influenced by America's maritime forces which are the tip of the spear for our nation's response to myriad modern challenges. It is American Sea Power that is called upon to stem the advances of undemocratic competitors who act aggressively in the global commons. We will depend on our sea services to secure shipping routes and waterborne trade as great power competitors seek to impose hegemonic and regional dominion over neighboring nations. And we will utilize our maritime forces as the forward presence and credible deterrent needed to thwart aggressor nations from pursuing reckless territorial ambitions and calm potential escalatory actions which could lead to large-scale armed conflict. And we will call on our maritime forces to be the first responders as rising sea levels, inclement weather, and other effects of climate change bring challenges to coastal and island nations. Sea Power is America's enduring and unique asymmetric advantage in addressing these critical global security issues, and our national defense priorities and resourcing decisions must reflect this reality.

The National Security Strategy and the Department of Defense's (DoD's) 2018 National Defense Strategy clearly describe a strategic environment that has reverted to an era of "great power competition" for the first time since the Cold War. Adversarial great power nations such as China and Russia are destabilizing the rules-based international order by exploiting widening technology gaps particularly in cyber space and outer space. In both domains, our maritime forces face significant vulnerabilities as the data and situational awareness provided by our cyber and space assets are vital to oceanic operations. For these reasons and many more, it is essential for America to chart a bold course ahead with the future force structure and revitalization of its Navy, Marine Corps, Coast Guard and U.S.-flag merchant fleets.

A rising and more confident China in the INDO-PACOM hemisphere is making significant investments in its sea services, building a robust and capable fleet of cruisers, destroyers, frigates, submarines, polar icebreakers and aircraft carriers. It continues to exert sovereign claims in international waters, building artificial islands in the South China Sea by dredging reefs and building airfields and other military facilities on these "islands." These actions are a direct provocation to China's neighbors and bring instability and uncertainty to this critical economic region. China's Maritime Silk Road initiative is replicating American intermodal systems by investing in other nations' ports, maritime communities, and infrastructure — building influence to control American partners and coerce them into greater integration with China's economic and military ambitions.

Russia's attack on Ukraine, ongoing military operations in the Middle East and Africa, and increasingly sophisticated cyberattacks on the United States, are challenging American global interests, along with our partners and allies. Russia has also invested significant resources in its own maritime fleet alongside advancements in cutting-edge technology such as hypersonic weapons. Its new submarine classes continue to demonstrate significant improvements in technology and sophistication. Russia is committed to destabilizing the international order to further its authoritarian vision and end the United States' role as the premier global superpower.

Both Russia and China are developing layered defense systems that could significantly constrain American operations during a potential conflict. North Korea and Iran also remain persistent and unpredictable threats. Iran's harassment of U.S. Navy vessels is constant and threatens one of the most critical oil transit lanes in the world in the Strait of Hormuz. Both North Korea and Iran continue to sponsor terrorist activities and act as malign agents globally.

In response to these clear and persistent threats, American Sea Power plays the key role of deterring and mitigating these destabilizing actions with its inherent flexibility and lethality. Throughout our history, whether the threat be man-made or a force of nature, American maritime forces are called on first. However, this constant demand from our nation's leadership comes with a price and has put significant strain on the sea services to maintain readiness and capability in responding to a wide range of operations. Such requirements have not only impacted maritime sustainment efforts but also recruitment and retention of talented American servicemembers.

The mandate for the United States is clear: we must consistently invest in our sea services or risk abrogating our standing as a great power. The three priorities outlined in the current National Security Strategy are timeless and demonstrate the need for strong American sea power, regardless of which party controls Congress or holds the White House. Our sea services must be ready and remain forward deployed to operate freely without obstruction on the ocean commons, and our merchant fleet must have the capability to provide war surge capacity by maintaining peacetime capacity. Finally, our shipbuilding and weapon systems industrial base must grow in capacity and resilience to face the challenges of great power competition.

*Tomorrow looks different.
So will we.*

- Adm. Linda Fagan
Commandant, U.S. Coast Guard
June 1, 2022



THREE ENDURING NATIONAL SECURITY PRIORITIES

The past two years have seen our great nation, and the global community, impacted by a series of major challenges which have shaken the foundations of the rules-based international order: a global pandemic, increasing nationalistic and destabilizing ideological extremism, and revisionist, hegemonic agendas pursued by China and Russia—most notably the invasion of Ukraine by Russia in February of 2022. The U.S. election of 2020 revealed the danger of America’s growing polarization, and the subsequent unrest diminished our standing in the global community as a champion of democracy and the rule of law. In response to these rapidly emerging and critical challenges, the Biden administration put forth its National Security Strategy (NSS) designed to guide the major elements of U.S. statecraft—Diplomatic, Information, Military, and Economic (DIME). The NSS set out three broad-based strategies for our country:

- Defend and nurture the underlying sources of American strength, including our people, our economy, our national defense, and our democracy at home;
- Promote a favorable distribution of power to deter and prevent adversaries from directly threatening the United States and our allies, inhibiting access to the global commons, or dominating key regions; and
- Lead and sustain a stable and open international system, underwritten by strong democratic alliances, partnerships, multilateral institutions, and rules.

In response to these clear and persistent threats, American Sea Power plays the key role of deterring and mitigating these destabilizing actions with its inherent flexibility and lethality.

The document goes on to state — “Today, more than ever, America’s fate is inextricably linked to events beyond our shores. We confront a global pandemic, a crushing economic downturn, a crisis of racial justice, and a deepening climate emergency. We face a world of rising nationalism, receding democracy, growing rivalry with China, Russia, and other

authoritarian states, and a technological revolution that is reshaping every aspect of our lives. Ours is a time of unprecedented challenges, but also unmatched opportunity.” The three national priorities outlined in the National Security Strategy are timeless and clearly demonstrate the need for strong American sea power, regardless of which party controls Congress or holds the White House.

PRIORITY I: PROTECT THE AMERICAN PEOPLE, THE HOMELAND AND THE AMERICAN WAY OF LIFE

Sea power allows the United States to play the away game, rapidly responding to threats around the globe and taking the fight to the enemy to protect the American people. For the past several years, studies have recommended expanding the naval fleet and investing in next-generation aircraft and weapons to secure dominance in the maritime domain. ADM Mike Gilday has recently released his updated NAVPLAN 2022 in which he sets forth his vision and capacity goals for the future Fleet in Force Design 2045. Under the direction of 38th Commandant Gen. David Berger, our Marine Corps has charted a new and bold course that requires continued bipartisan support. The Coast Guard protects our shores from a host of regional and domestic threats and assumes an increasing role in the Arctic as that region continues to open into a new maritime common. The ships, men and women of the U.S.-flag fleet give us the capacity to sustain and support any long-term engagements. They cannot be reconstituted overnight and represent a critical strategic element of risk mitigation during unexpected or protracted events around the world.

PRIORITY II: PRESERVE PEACE THROUGH STRENGTH

The United States has allowed its sea services to shrink after achieving unprecedented global military dominance. We face continuous competition as rival powers seek to push forward their own national priorities over those of the United States. This new, competitive playing field will not be as binary as war and peace. These challenges can and will be fought over a variety of domains across a wide spectrum of involvement, from peacetime saber rattling to clandestine coercion to potential conflicts in multiple regions simultaneously. This new challenge will require a constant state of high readiness and a military that can deter all types of potential threats, from kinetic to cyber, from space to the depths of the oceans, and everything in between. The National Security Strategy recommends investing in new technologies, modernization, capacity, and readiness to ensure the United States will achieve its capability to deter potential threats.

It is imperative the United States maintain naval forces that can sustain our national commitment to global maritime security. However, the biggest impediment to maintaining that force is the consistent underfunding and excessive acquisition timelines of our shipbuilding programs. We need to produce the right quantity and quality of ships, with the right capabilities, for the right price, in economically affordable numbers over the next 30 years, for all of our sea services. While the current naval force structure calls for a

355-ship Navy as codified in law, new and bold naval force structure assessments, such as Force Design 2045, are emerging that may need to replace the 355-ship force structure assessment for something that better addresses the strategic threats evolving over the next several decades. We must make the right investments to achieve these new numbers with cost-saving acquisition strategies to best steward taxpayer dollars.

PRIORITY III: PROMOTE AMERICAN PROSPERITY AND INFLUENCE

International trade continues to account for 30% of the U.S. economy, and over 99% of cargo tonnage moves by sea. American prosperity requires open and secure sea lanes, and the most effective guarantee is American hulls in the water. The consistent and persistent presence of the U.S. Navy, Marine Corps, Coast Guard and U.S.-flag Merchant Marine guarantees hard-won maritime security and remains a critical and visible deterrent against those who seek to undermine it. A healthy U.S.-flag fleet and Navy force structure designed for a contested environment requires a congressional focus on innovation in our shipbuilding industrial base. The maritime transportation system is the most cost-effective and environmentally sound mode of moving goods. The Coast Guard ensures the safety of that system, along with the mariners that steer it. While water-borne transportation is the lifeblood of much of the nation's domestic commerce and international trade, it also underpins our economy, with nearly 50 million American jobs dependent on the openness of the global maritime environment.

There is no doubt that the global system led by the United States has produced an unprecedented period of peace among great powers as well as the expansion of freedom and representative government around the world. In addition to championing freedom and liberty, the continued application of American "smart power" from the sea is critical in dealing with transformative issues such as shifting global demographics and migration, massive urbanization of coastal areas, and increasing population growth in many unstable regions of the world. These shifts in demographics lead to greater competition for resources, new adversarial nonstate actors, potential conflict between nations and other threats requiring leadership and action from the United States. Our sea services provide unique characteristics that enable them to address these challenges. The long history of support provided to our fellow nations following natural disasters consistently demonstrates the value of our forward-deployed maritime force structure and strategy. There is no doubt that America's global preeminence and influence are largely the result of the actions of our sea services. As stated in the National Security Strategy:

"This moment calls upon us to lean forward, not shrink back – to boldly engage the world to keep Americans safe, prosperous, and free. It requires a new and broader understanding of national security, one that recognizes that our role in the world depends upon our strength and vitality here at home. It demands creative approaches that draw on all the sources of our national power: our diversity, vibrant

economy, dynamic civil society and innovative technological base, enduring democratic values, broad and deep network of partnerships and alliances, and the world's most powerful military."

CLIMATE CHANGE MARITIME POLICY 2023 – 2024

DEPARTMENT OF DEFENSE CLIMATE ADAPTATION POLICY

To harmonize its climate actions with the Department of Defense's (DoD) Climate Adaptation Plan (Adaptation Plan), the United States Navy released its new guidance, Climate Action 2030 (May 2022).

The Department of Defense Directive 4715.21 describes "climate adaptation" as an "adjustment in natural or human systems in anticipation of or response to a changing environment in a way that effectively uses beneficial opportunities or reduces negative efforts." The Adaptation Plan outlines five lines of effort: (1) Climate-informed decision-making; (2) Train and equip a climate ready force; (3) Resilient built and natural infrastructure; (4) Supply chain resilience and innovation; and (5) Enhance adaptation and resilience through collaboration.

In concert with the Department of Defense guidance, Climate Action 2030 has identified two key performance goals. The first is to "Build Climate Resilience" to safeguard the force from the effects of changing climate conditions, and the second is to "Reduce Climate Threat" by aggressively reducing greenhouse gas emissions. It also sets out a way forward that seeks to "Strengthen maritime dominance," "Empower our people," and "Strengthen strategic partnerships."

Capitalizing on both the sense of urgency and the insights of the implementation guidance in Climate Action 2030, The Navy League of the United States has developed a series of policy recommendations that are set out in detail at the end of this section.

LAW OF THE SEA

The Navy League of the United States supports ratifying the United Nations Convention on the Law of the Sea, finding that arguments against ratification are far outweighed by the benefits of ratification both to the United States and our international allies. The United Nations Convention on the Law of the Sea serves as the culmination of a decades-long negotiation process overhauling numerous maritime agreements and generations of widely accepted norms and standards in the maritime domain. The treaty includes provisions on conservation, resource allocation and the freedom of the high seas. It came into being in 1982, nine years after the work of the Law of the Sea Convention began, and efforts to revise the treaty would continue until 1994. The United Nations Convention on the Law of the Sea was

signed by 168 parties and serves as the foundation of international maritime law.

The treaty has received two supporting votes in the Senate Foreign Relations Committee; endorsement from the Clinton, Bush, and Obama administrations; and four Senate Foreign Relations Committee hearings. But a full vote was never taken in the Senate. As a result, UNCLOS remains unratified by the United States to this day.

Advocates of the treaty have cited numerous advantages to ratification. Among these are new and stable protections for maritime industries, from mining to communications. These benefits would provide businesses with predictability and international assurances. Other benefits include military and commerce navigation rights, which ensure freedom of navigation for all vessels engaged in innocent passage. Other factors often cited include giving America a “seat at the table” to ensure that China and Russia do not rewrite the rules of international maritime law without us. This “seat at the table” would also give the United States greater legitimacy when criticizing China’s maritime actions, which violate the Law of the Sea. It is also argued that America’s exclusion from UNCLOS diminishes our international prestige and undermines our efforts to work with allies who are signatories to the agreement.

Prominent supporters from the current U.S. Senate have included Sen. Mazie Hirono (D-Hawaii), Chair of the Senate Seapower Subcommittee, and Sen. Lisa Murkowski (R-Alaska). In declaring her support, Sen. Hirono stated, “Becoming party to UNCLOS protects our right of free passage through territorial seas and ensures we have a seat at the table on decisions impacting Hawaii and the ocean around us.” Her statement was one of several given as part of a bipartisan resolution effort led by herself and Sen. Murkowski.

In a Senate hearing conducted on May 18, 2021, Sen. Tim Kaine (D-Va.) obtained the professional opinion of Navy Adm. Philip S. Davidson. In the bill’s language is the following quote from Davidson, dated March 9, 2021: “I’m on record saying that [ratification of the UNCLOS] would be good for us, I think we would be hard-pressed to find a Navy Admiral that’s said otherwise.” In addition to Davidson, UNCLOS has garnered support from other military experts, namely Adm. Michael Gilday, Chief of Naval Operations; Adm. John Aquilino, commander of U.S. Indo-Pacific Command; Gen. Glen D. Van Herck, commander of U.S. Northern Command and the North American Aerospace Defense Command; and Gen. Charles Dunford, former chairman of the Joint Chiefs of Staff.

These claims of support, as well as support voiced by business groups and labor organizations, outline the prevalent backing of UNCLOS from American leaders involved with maritime activities and policy. The Navy League joins them in supporting ratification of UNCLOS.

THE SEA SERVICES TEAM

While this report will cover in great detail the critical investments needed in ships and weapon systems to ensure American security and maritime dominance, not one of those assets would be of any value without the men and women in uniform who operate them. The centrality of the warfighter to all American military endeavors has been recognized and articulated by the administration of President Biden in the National Security Strategy released March 2021. The Strategy asserts, “First and foremost, we will continue to invest in the people who serve in our all-volunteer force and their families. We will sustain readiness and ensure that the U.S. Armed Forces

remain the best trained and equipped force in the world.” This may be easier said than done as the sea services face strong headwinds in their efforts to recruit and maintain the greatest, most diverse, and most capable fighting force on the globe.

Today, readiness concerns loom large for the military as well as the industrial base which supplies it. Shortages in defense industry workforce availability, productivity, parts availability, and other supply chain issues still remain even several years after the outbreak of the pandemic. These factors led to the NDIA scoring the business environment of the defense industry at 69 out of 100 points (effectively a letter grade of “D”) in its annual survey of companies operating in the defense sector. Lacking sufficient parts and people to help supply the military, combined with a lack in the propensity to serve, may inevitably lead to dissatisfaction by

the military’s own workforce, fractures in chains of command, oversights in material condition shortfalls, and could potentially play a contributing factor in catastrophic losses such as ship fires and collisions. This section will focus on the needs of prospective recruits, as well as current servicemembers and their families, but it cannot be overstated that factors such as supply chain deficiencies and debilitated defense sector productivity will have direct impacts on the health and morale of servicemembers in the Armed Forces.

All echelons of sea service leadership should be familiar with the strengths and vulnerabilities often found in the newer generations of workforce entrants (as determined by academic research). Millennials are attributed with enhanced technological skills above those of their older peers, but this overreliance on technology may lead to digital communications, space and cyber tools, that can be vulnerable to enemy interference. Interpersonal communication skills, resiliency, and retention are also factors with unique considerations for the Millennial generation such as the need for frequent recognition and input in the organization’s mission. Likewise, Gen Z has much to offer but not without their own set of challenges. A recent study from the Modern War Institute concluded that Gen Z may be more susceptible to disinformation, setting the stage for enhanced information warfare

“America’s exclusion from UNCLOS diminishes our international prestige and undermines our efforts to work with allies who are signatories to the agreement.”

challenges in the workforce of tomorrow.

The full impact of the pandemic, and its effects on military servicemembers and their families, will require years of continued study. However, some negative outcomes are already apparent. While deployments continued and the services adapted to the necessary precautions to reduce infections, a study by Booz Allen Hamilton found that there were increasing trends among military servicemembers and their families related to increased stress and diagnosed disorders, unmet mental health needs, declining spouse employment, and reduced access to childcare. Furthermore, a personal choice philosophy adopted by some service members resulted in their discharge for failure to receive mandated vaccinations, which exacerbated workforce shortages; the impact of this philosophical perspective on other workforce-related mandates in the future is undetermined and a possible risk area.



According to a recent Defense Department survey, only about 9% of young Americans capable of serving in the military had any desire to enlist.

New recruitment poses a growing challenge as America's workforce increasingly lacks both the propensity to serve and the minimum necessary qualifications to serve. According to a recent Defense Department survey, only about 9% of young Americans capable of serving in the military had any desire to enlist. It is also becoming apparent that in order to overcome this enthusiasm gap, recruits will require waivers to meet the basic standards for enlistment. For these reasons, services are falling short in their 2022 recruiting goals and for the first time in decades, some are questioning the sustainability of an all-volunteer military.

All services are making workforce strategies top priorities and the Navy League supports all efforts to continue to modernize personnel management systems, to focus on both recruitment and retention plans, and to increase efforts to provide an inclusive workforce.

- Some innovations in the Navy have been successful including the

highest enlistment bonuses in their history, delays in separation, waiving time in grade requirements and canceling early out programs. Overall, the Navy predicts meeting its retention goals in 2022. However, its significant challenges remain in recruiting reserves and active-duty officers where the Navy has fallen several thousand persons short.

- The Marine Corps Talent Management 2030 policy (and companion plan Force Design 2030) shifts from a primary focus on recruiting, to a primary focus on retention. It adds attention to PCS frequency, family support, inclusivity, physical fitness, and cognitive skills. The Marine Corps did hit its retention goals for the first time in 10 years in 2022. Nevertheless, the Marine Corps remains the only service without fully gender integrated recruit training at the platoon level, but does have fully gender integrated recruit training at the company level.
- Coast Guard Ready Workforce 2030 Outlook acknowledges the inherent challenges that all the services are facing and outlines three lines of effort including transforming talent management, modernizing the training system, and providing workforce support. As of this writing, though, the CG is more than 2,000 members (nearly 5%) understrength and advancement lists are generally cleared leading to a younger, more inexperienced workforce overall.
- The failure to focus on merchant mariners as an essential labor force will continue to exacerbate already existing shortages and affect readiness for both the Ready Reserve Force, Sealift Fleet, and the commercial ships in the Maritime Security Program (MSP). The Navy League's own research and publications have found that the Merchant Marine is at least 1,839 mariners short of what would be necessary in wartime.
- Other institutional research also revealed that despite Congressional oversight and sea service attention, personnel support regarding pay, health care, housing, and mental health, have remaining deficiencies. The Military Family Advocacy Network's 2021 biennial survey revealed some continuing or worsening areas of concern:
 - Financial Readiness: A fifth (22.4%) of currently serving families had less than \$500 in emergency savings or no fund at all.
 - Food Insecurity: One in six (16.6%) military and veteran families were experiencing food insecurity or hunger.
 - Health Care: More than half (53.7%) of respondents reported lack of appointments and provider availability.
 - Housing: Sixty percent (60.9%) of respondents carry the burden of paying more than they can comfortably afford for housing.
 - Loneliness: Over half (54.0%) reported feeling lonely.
 - Transition: Only 62.9% would recommend military service to someone considering it, down from 74.5% in the 2019 MFAN Survey.

Commercial housing availability and affordability have been near crisis levels in many areas around the country, including larger cities and areas where on-base housing may not be sufficient. Basic Allowance for Housing has been periodically reduced in a cost-share model, starting in 2015 through 2019 which left military families to cover the balance of their housing costs. Blue Star Families' Military Family Lifestyle Survey reports that over 75% of the respondents were paying more than \$200 per month or more. MOAA currently is championing legislative fixes, and the Navy League supports their intent.

Periodic National Defense Authorization Acts (NDAA) are typical ways for services to enact needed personnel changes as well as to allow Congress to focus on areas of emphasis that the services may not have prioritized to the degree that Congress felt necessary. The 2023 and 2024 NDAs are no different. The Navy League strongly supports all elements of the current sea service plans for bolstering recruitment and retention and notes the need for Coast Guard parity to ensure that our brave Coasties are paid during lapses in government funding.

The 2022 NDAA has set a strong benchmark for addressing issues related recruitment and retention, health and morale, and quality of life considerations for servicemembers and their families. With the end strength endorsement and pay/benefit increase, it also addressed gaps in:

Military health

- Report on the reduction or realignment of military medical billets to ensure the Military Health System will have the manpower it needs.
- Independent review on military suicides and response.
- Better eating disorder treatments for servicemembers and dependents. The most recent count saw a 26% increase in those disorders from 2012 to 2016.

Housing

- DoD to provide housing history statements to service members and ask for a report on the military's private-public partnerships on military housing.

Family support

- DoD can pay out a basic needs allowance to servicemembers; this bill, however, failed to address the Coast Guard.
- Authorizes an increase in funding of \$70 million for Defense-wide Operations & Maintenance, Department of Defense Education Activity, for Impact Aid, including \$10 million for military children with severe disabilities.
- Creates a new category of bereavement leave for military personnel that would permit servicemembers to take up to two weeks of leave in connection with the death of a spouse or child.
- Increases parental leave to 12 weeks for all servicemembers for the birth, adoption, or foster care placement of a child.



U.S. NAVY / MASS COMMUNICATION SPECIALIST BRD CLASS ALANA LANGDON

Personnel Specialist Seaman Jenesis Fabian, assigned to Naval Station Mayport, ties a yellow ribbon around a tree at Mayport Memorial Park in recognition of Suicide Awareness Month. Participants tied yellow ribbons to represent the 46 active duty Sailors lost to suicide in 2019.

- Directs DoD to develop policy that includes the option to preserve parental guardianship rights of cadets and midshipmen.
- Directs DoD to ensure there is no gender bias in uniform design or selection and requires payments if like uniform items cost more for one gender or another.

Military justice reform

- Requires regulations to include sexual harassment as a standalone offense.
- Requires independent investigations of sexual harassment complaints.
- Modifies DOD workplace and command climate surveys to include questions relating to experiences with supremacist activity, extremist activity, or racism;
- Expands Special Victim Counsel services for victims of domestic violence.

Equity

- Reserves will receive pay parity for hazard pay and other work when doing the same jobs as active-duty troops.
- Eliminates the "pink tax" on military uniforms and aims to address other financial gender inequities in the military.



The Navy League of the United States recommends:

- Train and Equip a Climate Ready Maritime Force
 - a) Fuel consumption would be a key factor in determining the supportability estimate of nonessential mission commitments.
 - b) Use Simulated Artificial Intelligence Learning (SAIL) in lieu of some underway time as the means to train the force, when possible. Surface combatants and aviation could increase use of simulators and simulation to reduce fuel consumption.
- Supply Chain Resilience and Innovation; Utilize advancements in domestic manufacturing capabilities to move toward a 100% domestically sourced Navy procurement strategy.
 - In addition to existing procurement provisions intended to compel domestic sourcing of materials, when possible, the Navy and Department of Defense should make a priority of moving toward 100% domestically sourced equipment and supplies. Domestic production in the United States is far less polluting than production in developing countries and the reduction in transportation needs would reduce carbon emissions while enabling flexible and nimble approaches to just in time inventory controls.
 - Require domestic fossil fuel consumption for all non-deployed assets. In 2019, U.S. energy production exceeded consumption for the first time in 62 years with renewables constituting only about 10 percent of the total. Local U.S. production of fossil fuels has a much smaller carbon footprint because it does not use fuel to transport fuel at the same rate as energy that is sourced from across the globe.
- Fully funded quality of life initiatives for military members and their families, including regular increases in pay to keep pace with inflation, maintaining and improving housing, childcare, and other related initiatives.
- Recruiting and retention policies that ensure adequate personnel for the current and future operational tempo to support multiple, regionally dispersed contingency operations and natural/man-made disaster response, while ensuring the readiness to fight and win in a major theater combat operation.
- Support and require all inclusion initiatives for the services, including supporting sea service efforts for recruitment and retention and supporting recommendations by DACOWITS that ensures recruit training is fully integrated and berthing spaces are adequate for an integrated workforce, among others.
- Unencumbered education and training, including providing the material and equipment necessary to accomplish the training to meet the demands of full-scale spectrum of operations, combat, and irregular warfare.
- Close pay and entitlement parity gaps for the Coast Guard, ensuring servicemembers would be paid during a future government shutdown, providing Basic Needs Allowance, and other authorizations that exclude the Coast Guard due to agency location within the Department of Homeland Security.
- Funding the education and training of merchant mariners to ensure a sufficient pool of skilled personnel for the commercial maritime industry and military strategic sealift activities.
- Appropriate full funding at authorized levels for the U.S. Merchant Marine Academy and state maritime academies.
- Increased support for the U.S. Naval Sea Cadet Corps, the Navy and Marine Corps Junior ROTC, STEM programs, Young Marines, and maritime-related high school programs.
- Support Military Officers Association of America (MOAA) legislative efforts to assure the viability of the Tricare program and blended retirement system and preclude another hollowed-out force like the United States experienced in the 1980s and 1990s.
- Accelerate ability to respond to gaps in housing availability by rapidly increasing housing allowances, temporary lodging expenses, innovate other short-term allowances to meet the demand. Support MOAA legislative efforts including the BAH Restoration Act and the BAH Calculation Improvement Act.
- Authorized end strength for the Navy of 346,300 active duty.
- Authorized end strength for the Marines of 177,000 active duty.
- Authorized end strength for the Coast Guard of 40,456 active duty.
- Authorized end strength for the Navy Reserve of 57,700.
- Authorized end strength for the Marine Corps Reserve of 33,000
- Authorized end strength for the Coast Guard Reserve of 8,034
- Action to close the 1,839-merchant mariner shortage in the United States.



U.S. NAVY

Our Navy in Transition

Over the past two years our nation has experienced four major dynamic events that have irrevocably changed us as a country forever. These have been: (1) the COVID-19 pandemic; (2) the end of the war in Afghanistan; (3) the changeout of the US Administration in 2020; and (4) the Russian invasion of Ukraine. These four events have impacted our citizenry and polity, but also the very foundations of our democratic government and its institutions. These events have also changed the dynamics of the geopolitical and geo-strategic playing fields in dramatic fashion. There is no doubt that the long-term ramifications of these events will continue to be felt for many years into the future.

These tectonic events have resulted in a recent change to the existing National Defense Strategy (NDS). The four Defense priorities, as outlined in the 2022 National Defense Strategy Fact Sheet, paint a decidedly more threat-based and threat-response direction for the Department:

- Defending the homeland, paced to the growing multi-domain threat posed by the PRC [People's Republic of China]
- Deterring strategic attacks against the United States, Allies, and partners
- Deterring aggression, while being prepared to prevail in conflict when necessary, prioritizing the PRC challenge in the Indo-Pacific, then the Russian challenge in Europe
- Building a resilient Joint Force and defense ecosystem

From this guidance our Navy must now craft a robust, flexible, and fiscally achievable maritime force that can meet all challenges and threats across a large range of operational response options.

“The United States is a maritime nation — this is an inescapable fact.”

This will be no small task moving forward.

The United States is a maritime nation — this is an inescapable fact. Article I, Section 8 of the Constitution directs Congress “to provide and maintain a Navy,” proving our Founding Fathers recognized nearly 250 years ago that a strong Navy was the most reliable guarantor of U.S. interests at home and abroad. The U.S. Navy protects our waterways and sea lanes, ensuring the free movement of goods and services across the globe. It is forward-deployed, dissuading potential adversaries, assuring allies, and building partnerships. The U.S. Navy ensures robust maritime logistics

remain intact in times of conflict to support the other services, especially in a contested modern, multi-domain environment. The U.S. Navy is also a first responder to any global crisis. Investing in America’s Navy generates jobs, expands the pool of skilled American workers, and generates secondary and tertiary economic benefits. It is the bedrock for securing our nation and American interests for generations to come.

However, with a rising China and bellicose Russia, the U.S. no longer enjoys a monopoly on sea control or sea power and mere numbers of maritime assets may no longer be the traditional measure of maritime strength. Adversarial regimes such as North Korea and Iran persist in taking actions that threaten regional and global stability. And while the Navy’s priorities have been clearly defined by the National Security Strategy and National Defense Strategy, which directs our Navy to protect the American homeland, promote economic prosperity, and advance American influence throughout the world, new technologies and expanding warfare domains have caused the U.S. Navy to look at its future force structure in a new light. The National Defense Strategy operationalizes these new imperatives and articulates a plan to compete, deter and win in a newly competitive security environment.

In December 2019, CNO Admiral Mike Gilday sent out his “FRAGO 1” directive to the Fleet which laid out his vision for where the Navy

was to set its course for the future. In this directive, the CNO made it clear that the #1 mission of the Navy was going to be “the operational readiness of today’s Navy”. To this goal, the CNO focused on three main themes—Warfighting, Warfighters, and the Future Navy. This document was a departure from previous statements of past CNOs as it focused specifically on the readiness aspects of the current naval force over more traditional shipbuilding priorities and funding challenges and was a clear acknowledgment that regardless of the exiting turmoil in ship inventories and aspirational shipbuilding plans, the current Fleet in being was the most important element in our nation’s maritime security.

In concert with the CNO’s FRAGO 1, the three maritime chiefs from the Navy, Marine Corps, and Coast Guard released a Tri-Service Maritime Strategy document that focused on the main threats from China and Russia, but also other threats from lesser nations and non-state entities such as Iran, North Korea, violent extremist organizations, and transnational criminal organizations. “Advantage at Sea” set forth five themes designed to leverage and compliment the strengths of the three maritime services in meeting these threats. They are:

- Generate Integrated All-Domain Power,
- Strengthen our Alliances and Partnerships,
- Prevail in Day-to-Day Competition,
- Control the Seas, and,
- Modernize the Future Naval Force.

CNO Gilday has since updated his FRAGO 1 directive and released his NAVPLAN 2021 in January 2021 which combines the initial thrust of FRAGO 1 and the Tri-Service Maritime Strategy with the reality of new developments from the aforementioned realities. This NAVPLAN sets forth four priorities for the U.S. Navy going forward:

- Readiness
- Capabilities
- Capacity, and
- Sailors.

A key theme of NAVPLAN 2021 is the development, procurement, training, and sustainment of a “larger, more lethal, and more ready fleet.

In July 2022, the CNO released NAVPLAN 2022 which builds on the four foundational priorities listed above and states emphatically that “America must maintain maritime dominance”. It further codifies that decisive naval power is essential for the emerging contested environment that is coming and that a “combat credible U.S. Navy—forward deployed and integrated with all elements of national power—remains our Nation’s most potent, flexible, and versatile instrument of military influence.” NAVPLAN 2022 highlights six Force Design Imperatives that will be used in designing the Fleet of 2045. These imperatives are:

- Distance (long-range precision fires from platforms with greater reach),
- Deception (deceptive measures, including stealth, concealment, maneuver, etc.),
- Defense (integrated hard-kill and soft-kill capabilities),
- Distribution (disaggregation of the Force across a wide area of operations and domains)
- Delivery (resilient logistics and sustainment), and
- Decision Advantage (integrated, networked command and control).

In order to achieve the goals of NAVPLAN 2022, CNO Gilday has set forth a Force Design 2045 which acknowledges the need to shift to a larger, more capable Fleet that is capable of supporting priorities as set forth in the new National Defense Strategy and the Joint Warfighting Concept priorities. This will entail the transition of our traditional fleet of manned warships into a mixed, hybrid fleet of manned, multi-mission platforms as well as new unmanned platforms that operate “under, on, and above the seas”.

To accomplish its mission, the Navy must be resourced appropriately to balance all elements of being a forward-deployed fighting force. The fiscal year 2018 National Defense Authorization Act codified a goal of 355 ships for the Navy fleet. This maritime force structure number has undergone numerous fluctuations over the past four years, and it is still not a firmly determined, nor fully-funded inventory planning figure. The Navy’s current 30-year Shipbuilding Plan (released in April 2022) provides Congress with three alternative long-range shipbuilding procurement profiles with a Future Force Design inventory of between 318-363 ships depending on which alternative is chosen. This plan explores not only new ship classes, but also the procurement of unmanned/autonomous vessels, as well as modernization and service life extension programs for most ships in the current fleet that will continue in service for decades to come. Additionally, aircraft, weapon systems, ordnance, and command and control must be procured in support of this battle force inventory and exist in sufficient quantities. Finally, a steady flow of citizens must be recruited, trained, and retained in our all-volunteer service.

SHIPS AND SHIPBUILDING

The Navy-Marine Corps leadership team is pushing a more integrated and sustainable force design and structure than ever before. A fully integrated naval force is at the forefront of all discussion, plans and driving policies regarding resources. While the guidance used to design force planning and structure around the great power competition was laid out in the 2018 National Defense Strategy and the Marine Corps’ 38th Commandant’s Planning Guidance, further guidance such as the Commandant’s Force Design 2030 document has been published for congressional authorizers, appropriators, and planners to guide future force structure discussions.

Since the end of the Cold War, America’s naval forces have focused on power projection with no comparable peer competitor. However, the past decade has forced Navy and Marine Corps planners to change, consistent with pacing threats. Centered on the Navy’s distributed maritime operations (DMO) concept, the Navy and Marine Corps team is contemplating a major transformation. Instead of building maritime forces around large capital ships, the new plan utilizes the entirety of the maritime theater by disaggregating assets and complicating the adversaries’ counter-operations. Though the current National Defense Authorization Act has not abandoned the 355-ship goal over the last year, the Navy’s focus (as stated in the FY23 30 Year Shipbuilding Plan) has shifted to the total capabilities of the fleet rather than a specified number. Whatever the final number, the type of ships the Navy is expected to buy will change significantly. This may very well include a slightly smaller manned force structure mix, backfilled by the introduction of new medium and large unmanned surface vehicles (USVs). While a 355-, 500- or 737-ship Navy is an important aspiration, the final tally must be grounded on the threat, tactical capability as well as affordability. As former Navy Secretary Richard V. Spencer stated prior to his departure in 2019, “more important is ensuring that we have the maximum capability to address every challenge we’re going to be facing.”

In late 2020, the Hudson Institute released its landmark Navy force structure analysis, *American Sea Power at a Crossroads: A Plan to Restore the U.S. Navy’s Maritime Advantage*. This was the first plan to be released on paper following a tumultuous period where the Navy’s force structure assessment was taken over by the Office of the Secretary of Defense and several additional studies were commissioned, including Hudson’s. This detailed study proposed a “Battle Force Fleet Size” of 581 ships, including a mix of traditional aircraft carriers, submarines, destroyers and cruisers, amphibious ships, and logistics ships, but also 139 unmanned surface and submersible vessels. “The Navy needs a new fleet design to affordably address its challenges and exploit its opportunities while maintaining today’s operational tempo,” says the report. Hudson’s proposed force structure would rely on an “implicit or explicit concept for how the Navy will deter aggressors or win if deterrence is unsuccessful”. The fleet design integrated the Navy’s new generation of operational concepts: littoral operations in a contested environment (LOCE), and Expeditionary Advanced Base Operations (EABO). These concepts require a Navy that embraces a “decision-centric” warfare mindset that optimizes new characteristics widely considered mandatory for future platforms:

- A defensive capability in each platform designed to defeat “a prompt adversary attack and enable U.S. forces to effectively fire their offensive weapons.”
- An “offensive weapons capacity distributed across numerous platforms and able to sustain strike and counter-maritime operations.”
- Scalable “force package diversity” giving combatant commanders



U.S. NAVY / PETTY OFFICER 2ND CLASS TREY HUTCHESON

The USS Pasadena breaks through the ice in the Beaufort Sea, March 12, 2022, during Ice Exercise, an exercise that allows the Navy to assess operational readiness in the Arctic.

and the National Command Authority a wider range of options.

- A “force package complexity” designed to thwart adversary targeting capabilities.
- An affordable and sustainable procurement process that will bring this new fleet into reality.

There have been other official DoD sources advocating for a 500-ship Navy by 2045, dramatically increasing the size of the future submarine fleet, with new smaller surface combatants and amphibious warships. They provided even more unmanned surface and submerged autonomous vessels designed to expand the battle space and complicate targeting for a potential Chinese adversary. So, while there is flux in the final Navy and Marine Corps force structure analysis about specific quantity and capabilities, Navy leadership agrees we need to expand the future integrated naval force and be more modern, networked, lethal, and ready.

The Navy League strongly supports a U.S. Navy shipbuilding and conversion (SCN) budget of more than \$27.9 billion annually to meet the future shipbuilding goal, whatever that ultimately proves to be. We also highlight the narrow timeline of the Ohio replacement program (Columbia class) and the importance of recapitalizing the strategic ballistic submarines outside the SCN in the National Sea-Based Deterrence Fund. Congress should be attentive to the need to work around continuing resolutions, if necessary, to keep the program on schedule. Finally, and most importantly, the Navy League supports a larger share of the DoD fiscal year budget being dedicated to Navy acquisitions, operations and infrastructure as we move into an expanding great power maritime threat environment. Without additional funding for the Navy, a force structure size of 355, 500 or more ships will never be realized, and the nation will find itself at greater risk in protecting the maritime commons for U.S. and allied interests abroad.

Whatever the exact mix determined by Navy-Marine Corps

planners, the current and future fleet plans will include the following ship classes:



Ballistic Missile Submarines (SSBNs) and their Trident II D5 missiles: The nuclear triad of strategic bombers,

intercontinental ballistic missiles, and sub-launched ballistic missiles has provided the United States with strategic deterrence that prevented global war for more than 50 years. The Navy's top acquisition priority and the most survivable leg of the triad, the SSBN, provides 70% of the deployed nuclear warheads under the New Strategic Arms Reduction Treaty. Today's 14 Ohio-class SSBNs are scheduled to be replaced by 12 Columbia SSBNs.



Aircraft carriers: Supercarriers are needed to provide sufficient worldwide coverage of combatant

commanders' Title 10 directed requirements. It is vital to maintain the currently scheduled refueling of the Nimitz-class carriers, which are essential elements of a shipbuilding strategy that ensures our persistent forward presence well into the future. Force Design 2045 has a capacity goal of 12 nuclear-powered aircraft carriers.



Large surface combatants (LSCs) and small surface combatants (SSCs): Acquisition of Arleigh Burke-class destroyers as well as

the modernization of the Navy's cruiser and destroyer inventory will ensure the sustainment of the land-attack, fleet air, missile-defense, and anti-ballistic missile capabilities. The initial design of the DDG(X) next-generation guided missile destroyer is a critical element of the Navy's future force structure. Finally, proven lethality and survivability enhancements implemented in the Constellation FFG program will deliver much needed and cost-effective capability improvements to the fleet platforms. These ships will take full advantage of a proven parent design and incorporate lethality and survivability upgrades that will make this small surface combatant a capable multi-mission addition to the surface fleet. The Force Design 2045 capacity goal stated in NAVPLAN 2022 is 96 large combatants and 56 small combatant ships.



Attack submarines (SSNs): In an environment with the growing threat of layered, offensive and defensive

precision missile systems, our submarine force's asymmetric stealth advantage and immunity from missile attacks enable success for the entire joint force. Sustaining the gold-standard Virginia-class acquisition program, to include procurement of at least two hulls per year through fiscal 2025 and the Virginia Payload Module (VPM), is vital to the sustainment of this critical capability. The Force Design 2045 goal for fast-attack submarines is 66.



Amphibious ships: The Commandant's Force Design 2030 promotes a mix of large amphibious

assault ships along with a new light amphibious warship (LAW).

This mix is designed to meet a range of amphibious operations in the littoral environment in support of Marine Expeditionary Units and Marine Littoral Regiments. The Force Design 2045 capacity goal is 31 large amphibious assault ships and 18 light amphibious warships.



Combat Logistics Force (CLF):

CLF ships and auxiliary vessels make up a critical element of the sustainment of forward deployed Navy capabilities. These ships include replenishment ships, tenders, repair ships, salvage ships and hospital ships. The Force Design 2045 capacity goal for these ships is 82. This number may increase after analysis determines the impact of operating in a contested environment.

Unmanned Surface and Subsurface Vessels: This new and emerging inventory category is growing in importance and will be a key force multiplier to the manned-combatant force of the future. The vessels increase the Fleet's capacity for distribution and expand the ISR capabilities for commanders in the maritime domain. The Force Design 2045 capacity goal is 150 vessels.

Maritime Preposition ships: While not in the battle force, the Navy plans to grow from 14 maritime preposition ships in two squadrons to 21 total in three geographically dispersed squadrons of seven ships each. Our forward-based maritime preposition squadrons with civilian mariner and military force protection detachments are critical to the nation's global humanitarian disaster and crisis response capabilities. The Hudson study argues for a more robust "command and support" ship mix with 45 to 53 different support ships.

AIRCRAFT AND WEAPON SYSTEMS

Aircraft

Essential to the combat strength of our fleet is the naval aviation capability provided by a minimum of 12 carrier air wings, a fully integrated maritime patrol inventory, a modernized fleet helicopter force and complementary unmanned aerial systems (UAS). Key to that capability is the continued introduction of the F-35C Lightning II joint strike fighter to our carriers and the continued upgrade of the fleet's F/A-18 E/F Super Hornet strike fighters. The multiyear procurement of the E/A-18G Growler electronic attack aircraft and the E-2D Advanced Hawkeye airborne warning and control aircraft should continue until the current programs of record are complete. F/A-18 depot work and spares funding needs to support an increase in aviation readiness to quickly reset our forces, rapidly conduct battle and collision damage, and enable them to quickly return to combat-ready status. Fleet Logistics Support also requires investment, including continued support for C-130 maintenance and procurement of the CMV-22B Carrier Onboard Delivery replacement. Full support for the procurement of the P-8A Poseidon long-range antisubmarine warfare, intelligence, surveillance and reconnaissance aircraft and the Triton Broad Area Maritime Support UAS will ensure our maritime patrol supremacy well into the future. The Force Design 2045 capacity goals are ~1,300 mix of 5th generation manned aircraft

and Next Generation Air Dominance family of systems, ~900 anti-submarine and anti-surface aircraft to include helicopters and maritime patrol and reconnaissance aircraft, augmented by various unmanned aviation systems, and ~750 support aircraft to include intra-theater lift, training, and R&D aircraft.

C4ISR

Cutting-edge command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) is central to a naval strike group's combat capability and is a critical force multiplier. C4ISR is not just an enabler of more efficient and effective operations, it also provides the information, C2 and precision targeting essential to ultimate success, especially when executing DMO in a multi-domain battle environment.

Cyberwarfare

The Navy League continues to support the direction the Navy is taking in cyberwarfare and cybersecurity to promote assured C2, electromagnetic maneuver warfare, cyber and integrated fires. We must be ready to fight and win in contested and denied environments by leveraging our superior technology. The integration of all elements of cyberwarfare — from policy and requirements to research and development, training, fielding and operations under the Navy Cyber Command/U.S. 10th Fleet — has established the Navy as one of the nation's critical resources in this complex and rapidly evolving warfare discipline.

The Navy League of the United States recommends:

- Navy-Marine Corps' use of experimentation and focus on force design to achieve a more integrated naval force. The Navy League also supports the aspirational goal of whatever force structure the Navy and Marine Corps finally determines, while acknowledging the fleet of the future will change in mix of manned and unmanned platforms and adapt to supporting more distributed operations to take back the initiative in a great power competition.
- Full funding of the Navy's fiscal year 2023 shipbuilding plan with defined milestones to ensure the buildup of a more integrated and larger naval fleet.
- A larger allocation of the fiscal year defense budget to fully realize a larger and more integrated maritime force structure to effectively compete with near peers.
- Continued development, procurement, and deployment of the Navy portion of the Ballistic Missile Defense System, including long-range surveillance and tracking capability to queue ground-based intercept systems and, ultimately, the ability to detect, track and engage medium- and long-range ballistic missiles distant from the United States.
- The sea services' maritime domain awareness effort, which integrates national and global partner intelligence resources and information systems to provide the best intelligence picture of the world's oceans.
- The Navy's efforts to upgrade the quality and scope of mine counter-measure capabilities and improve the forward-deployed readiness of mine warfare forces.
- Increased emphasis on, and funding for, Navy and Coast Guard operations in the polar regions to protect our access to natural resources, as well as preclude these regions from becoming sanctuaries for potential adversaries. Communications, logistics, ship and aircraft modifications are essential for such operations.
- Increased emphasis on antisubmarine warfare, as our skills in that arena have atrophied in the face of an increasing threat.
- Adequate numbers of Navy amphibious ships and sealift platforms to provide the expeditionary lift support for present and future combatant commander requirements.
- Continued funding for combat logistics force assets, including oiler/dry cargo carriers; large, and new classes of sealift prepositioning vessels to support USMC's evolving prepositioning concepts.
- Realistic and sufficient operational training to ensure the safe, combat-effective performance of our men and women, to include adequate flight hours and steaming days, live-fire events, as well as active sonar operations in ocean environments (taking into consideration how such operations impact marine mammals).
- Accelerating the development of survivable tactical ISR UAS capability.
- Capitalizing on the significant goodwill fostered by cooperation with multiple countries in response to piracy concerns.
- Procurement of sufficient weapons and munitions to meet operation plan requirements, which are woefully inadequate. Additionally, there has been substantial war-gaming support to justify a recommendation that the Navy fund vertical-launch system rearming capability at sea to allow combatants to remain on station for longer periods of time.
- Expansion of maritime fleet ranges in terms of access and readiness, while reducing impediments and obstructions that may limit the usefulness of these ranges for critical technology testing, maritime combat doctrine development, and robust and realistic training opportunities for fleet assets in a variety of live-fire individual, combined and joint exercises.



U.S. MARINE CORPS

Vision for Change

In 2020, the Commandant of the Marine Corps, General David H. Berger, set out a new vision for the Corps in Force Design 2030 (FD 2030). The strategic concepts, changes to force structure, and tactical implications of FD 2030 have been subjected to constant Force experimentation and refinement, with the Marine Corps providing an annual update each year since its publication in March 2020.

The most recent update, Force Design 2030 Annual Update (Update), was released in May 2022, and includes key experimentation findings, implications for the Force, and also sets out priorities for Marine Corps spending with offsetting cuts in personnel and equipment.

Importantly, the Update specifically notes that FD 2030 is harmonized with the 2022 National Defense Strategy (NDS), and includes a particular focus on the NDS's expectations of "integrated deterrence, campaigning, and build[ing] enduring advantages." The update also identifies the People's Republic of China (PRC) led by the Chinese Communist Party (CCP) as the key threat that drives the Marine Corps' change modeling.

Finally, the Update states definitively that, "The Marine Corps does not have the luxury of focusing on a single threat, to the exclusion of all others, and basing our design on such a narrow point of view.

We are building a force capable of executing our concepts, not a force exclusively tailored to them. The Marine Corps remains an expeditionary crisis response force."

WHY CHANGE? A CONCEPT FOR STAND-IN FORCES, DECEMBER 2021

FD 2030 sets out a need for ambitious restructuring of the Marine Corps, with an emphasis on modernizing its force structure, strategies, and tactics. In particular, FD 2030 focuses on the threat and use of force to counter the malign efforts of the CCP in the Indo-Pacific Command's (INDOPACOM) area of responsibility (AOR).

In many ways, what animates the need for extensive organizational changes are the demands on the force from the strategic theory of

Stand in Forces (SIF). According to the Marine Corps' newly published *A Concept for Stand-in Forces December 2021*: "Stand-in forces persist forward and operate with allies and partners, establishing the leading edge of a maritime defense in depth. SIF are the eyes and ears of the fleet, adding depth to the battlespace to hold a potential adversary's maritime assets at risk and to deny sanctuary... When directed, SIF perform sea denial operations to disrupt an adversary's tempo and timing."

To be effective, SIF must have the capabilities to complete kill webs, deny an enemy freedom of movement, control key maritime terrain,

and extend the battlespace by becoming the forward element. However, these critical capabilities come with challenges for disaggregated or distributed forces in survivability, deception, and sustainment. It is these desired capabilities and accompanying challenges that have defined the Marine Corps' need for significant organizational change.

To compete and fight effectively, we must evolve across every domain. We must engage daily or run the risk of ceding the advantage to our adversaries.

- General Berger
38th Commandant of the Marine Corps

EXPERIMENTATION AND A CAMPAIGN OF LEARNING

The Update notes that during the past year the Marine Corps has taken a more structured approach to its force experimentation with a Campaign of Learning supported by sophisticated simulation and modeling.

For example, the newly formed Marine Littoral Regiment (MLR) was designed to concentrate too heavily on lethality but is more effective if there is a greater emphasis on reconnaissance and counter-reconnaissance with an increased capacity for resilient sensing and the enabling of kill chains. These refined modeling techniques have produced the following insights and course corrections:

- Preliminary planning anticipated a decrease in personnel end strength for the Marine Infantry Battalion from current manning levels of personnel of 896 Marines to approximately 735. This assumption has been refined and the current models suggest that infantry battalions of 800 to 835 personnel are better suited to achieve peak combat effectiveness.
- Marine Expeditionary Force (MEF) cannon battery capacity will remain at seven batteries. This contrasts sharply with earlier force estimates which anticipated an end strength of five batteries. The decision to also equip the MEF with seven High Mobility Artillery Rocket System (HIMARS) batteries remains unchanged.
- Marine aviation had planned to downsize three MV-22 medium tiltrotor squadrons for a total of 14 squadrons of 12 aircraft each, but continued detailed evaluation showed that 16 squadrons of 10 aircraft gave the Marine Corps additional capacity to meet the combatant commanders' needs in supporting the Joint Force.

SPENDING PRIORITIES

The Update sets out the following spending priorities in the order listed below:

1. Amphibious Warfare Ships

Amphibious Warfare Ships are listed as the cornerstones of maritime crisis response, and critical to gray zone activities—especially as launch platforms. However, there is some hesitation in the House with H.Rept. 117-397 stating, “the committee is also concerned about the broader implications of the importance of amphibious warfare capabilities, the probability of such a conflict, and the cost of building and maintaining a fleet that can prosecute such a conflict.”

2. Expeditionary and Seabasing Support Ships

Through its Light Amphibious Warfare (LAW) ship program, the Marine Corps would like to develop a Medium, Landing Ship (LSM) to enhance maneuver and mobility for Stand-in Forces. In the interim, naval expeditionary forces (NEF) will pursue a bridging strategy utilizing Expeditionary Transfer Dock (ESB), Expeditionary Fast Transport (T-EPF), Landing Craft Utility (LCU), and leased hulls.

The Navy League of the United States recommends:

The Navy League supports near term consideration of the following initiatives to confront critical challenges to operational forces in the maritime battlespace:

- 1) “Heal the Breach” with unvaccinated Marines by promptly developing an initiative to reinstate Marines who were separated based on COVID vaccination policies. These policies to date have cost the service more than 1,000, primarily enlisted, involuntary separations. Some estimates of recruiting and initial training set the cost of initial enlisted accessions at \$90,000 per enlistee resulting in a cost well in excess of \$90,000,000 to the American taxpayer.
- 2) Form a Task Oriented Operational Development Unit (TOODU) to study smuggling techniques for logistical resupply in Distributed Operations. The Marine Corps in joint partnership with the Coast Guard, Department of Homeland Security, Federal Bureau of Investigation, and the Intelligence Community, should develop tactics, techniques, and procedures for non-traditional supply lines and personnel insertions in the SIF as Marines form the forward edge of the maritime defense in depth.
- 3) Use artificial intelligence, machine learning and deep learning to create a defined capacity for near instantaneous data synthesis and analysis to consistently outpace enemy decision cycles.



3. Logistics

The Marine Corps anticipates developing an updated prepositioning strategy (Global Positioning Network) which would place supplies in forward deployed locations where they are most likely needed to support deployed forces.

4. Sensors

In order to support its reconnaissance/counter-reconnaissance mission, the Marine Corps intends to equip its Stand-in Forces with multi-domain sensing capabilities, including sensor payloads for the Marine Air-Ground Task Force (MAGTF) Unmanned Aircraft System (UAS) Expeditionary (MUX)/Medium Altitude Long Endurance (MALE) unmanned aerial vehicle (MUX/MALE) platform, passive ground-based sensors, and Ground/Air Task Oriented Radar (G/ATOR) capacity.

5. Lethality and Kill Web Enhancements

To ensure command and control and data transfer integrity in distributed operations, the Marine Corps continues to update “Network on the Move” capabilities, secure position-navigation-timing systems, and satellite communications to provide end-to-end solutions for weapons such as the Naval Strike Missile.

6. Talent Management

In November 2021, the Marine Corps released Talent Management 2030 which sets a course for using modern digital tools to replace paper based systems and proposes career path adjustments to recruit and retain the best talent. In particular, the Marine Corps has emphasized increasing career flexibilities that often match current initiatives in other branches of service including promotion opt-out, staff officer career path, lateral move options, and enhancing parental leave.

7. Infrastructure

Installations are now recognized as the foundation for the training and readiness of forward deployed forces. The Update provides the following guidance:

“We will seek the most efficient use of our network of bases, in the U.S. and overseas, as we adapt our operations to the new profile to be established in INDOPACOM via the Defense Policy Review Initiative. We will invest in resilience, ensuring that our installations remain fully capable of launching and sustaining the formations executing RXR [Reconnaissance/Counter-Reconnaissance].”

FORCE STRUCTURE CUTS

To date, the Marine Corps has made \$16 billion in cuts in both weapons platforms (such as main battle tanks), and associated personnel. These deactivations include an infantry regimental headquarters, two infantry battalions, a heavy-lift helicopter squadron, and a light/attack helicopter squadron. These reductions have resulted in a decrease in end strength of approximately 7,000 Marines.



U.S. MARINE CORPS / CPL. GABRIEL DURANDI

A U.S. Marine Corps MV-22B Osprey aircraft with Marine Medium Tiltrotor Squadron (VMM) 262 prepares to land aboard the amphibious assault ship USS Tripoli (LHA 7) while underway, June 25, 2022. VMM-262 is operating in the U.S. 7th Fleet area of operations to enhance interoperability with allies and partners, and serve as a ready response force to defend peace and maintain stability in the Indo-Pacific region.

Looking ahead, manpower efforts will reexamine external billets to develop additional potential reductions from the approximately 13,000 Marines that are assigned to external organizations (if these external billets do not meaningfully support its warfighting mission). Along the same lines, the Marine Corps is also studying potential savings developed by cutting mission sets that are best serviced by another service or agency.

2022 U.S. MARINE CORPS AVIATION PLAN

In May 2022 the Marine Corps released its new Aviation Plan (Plan) which highlights the complex requirements needed to retire legacy aircraft, field new aircraft, and adapt to the sophisticated demands of new tactics and strategies.

The Deputy Commandant for Aviation, Lieutenant General Mark Wise, has provided the following overarching guidance: “We as an expeditionary force must be agile, mobile, and survivable. This vision is built around distributed operations, littoral operations in a contested environment, and expeditionary advanced base operations to enable the stand-in force.”

Importantly, in considering the Marine Corps’ future readiness for combat, the Plan cautions that the aviation community “will be stressed over the coming years, resulting from either divestment or transition. This is a critical period for the Marine Corps and for Marine Aviation.”



U.S. COAST GUARD

The Coast Guard has recently achieved another military milestone. On June 1, 2022, Admiral Linda Fagan became the Coast Guard’s 27th Commandant and the first female service chief in U.S. history. With 37 years of service crossing all seven continents, Admiral Fagan is the Coast Guard’s longest-serving active-duty marine safety officer and the Service’s first woman promoted to four stars.

The Coast Guard is America’s maritime first responder. As a small service with 57,000 active duty, reserve, and civilian personnel, supported by 21,000 Auxiliary volunteers, the Coast Guard continues to punch above its weight. According to the “Coast Guard Posture Statement: 2023 Budget Overview,” in 2021 the Coast Guard saved 4,747 lives in search and rescue cases, interdicted 380,000+ pounds of cocaine, responded to 11,000+ pollution incident reports, surged forces in response to domestic natural disasters such as Hurricane Ida, and facilitated the free flow of commerce worth \$5.4 trillion across the Marine Transportation System (MTS).

While the Coast Guard continues to execute its statutory missions such as national defense and homeland security, search and rescue, drug and migrant interdiction, environmental and natural resource protection, and supporting the safe and efficient operation of our MTS, Admiral Fagan noted that the Service must continue to evolve to meet increasingly complex demands, risks, and opportunities, including:

- Growing workforce complexity, with changing employer-employee expectations leading to hiring and retention challenges;

“Empower people with reliable, cutting-edge assets, systems, infrastructure, and decision-making ability, while rebuilding the fleet.”

- Adm. Linda Fagan
Commandant, U.S. Coast Guard

- Rapid advancements in technology pervade the MTS, with increasing connectivity, reliance on data and networks, and use of commercial space and artificial intelligence;
- Implications of climate change, including rising sea levels, intensifying severe weather, melting Polar ice, and migrating fish stocks;
- Shifting economic factors, including the illegal movement of people and goods, predatory fishing exacerbating global food insecurities, and the push for offshore energy;
- Evolving geopolitical landscape, with global strategic competition challenging the rules-based order for maritime governance and regional stability; and
- Changing operational domains requiring the Service’s authorities and capabilities to combat transnational organized crime, violent extremism, cyber threats, and irregular migration.

Fortunately, the Administration and Congress have recognized the value of America’s Coast Guard and have provided funding to begin to rebuild Service readiness, to include: recapitalization of surface, air, shore infrastructure projects, C5I assets, and critical workforce initiatives focused on retention and recruiting.

Admiral Fagan has identified her three priorities in her “Commandant’s Intent 2022”:

- 1. Transform the Coast Guard’s total workforce.** The talent management system has not changed significantly in 75 years and must deliver the tools, policy, training, and support to succeed across all missions. This requires recruiting, training, and retaining a mobile and capable workforce, as well as supporting members’ families with better healthcare, housing, and childcare. Priorities include:
 - Deploying innovative recruiting practices to attract a mission-ready total workforce;

Surged forces in response to domestic **natural disasters** such as Hurricane Ida

Interdicted **380,000+** pounds of cocaine

Responded to **11,000+** pollution incident reports

Facilitated the free flow of commerce worth **\$5.4 trillion** across the Marine Transportation System

- Revolutionizing talent management policies to create opportunities for flexible assignments, advancements, workplaces, and career paths;
- Developing individually tailored, on-demand, and modernized learning for continuous professional and personal growth of the workforce; and
- Delivering point-of-need healthcare and family services to bolster the resiliency of the workforce and families.

2. Sharpen the Coast Guard's competitive edge. Empower people with reliable, cutting-edge assets, systems, infrastructure, and decision-making ability, while rebuilding the fleet. In the interim, increased operational demand must be met with legacy assets, some of which are over 50 years old. Priorities for sharpening the Coast Guard's competitive edge include:

- Focus and accelerate investments in technology and critical infrastructure to maximize outcomes and workforce talent;
- Advance a future-focused, integrated approach to design, deploy, and sustain an agile, modern force of highly-trained personnel, assets, systems, infrastructure, and logistics support;
- Drive a culture of innovation to outpace accelerating changes; and
- Leverage data as the catalyst to transform the Coast Guard's strategic advantage.

3. Advance the Coast Guard's mission excellence. Enhance the way the Coast Guard provides national defense and homeland security, facilitates maritime safety and security, protects living and natural resources, and responds to crises. Priorities include:

- Be "Brilliant at the basics" – continue the tradition of exceptional service;
- Utilize assets, people, and capabilities in new ways to respond to growing demands and evolving threats;
- Build on the ability to lead in a crisis;
- Safeguard a rapidly changing MTS, including emerging cyber threats; and
- Strengthen partnerships and improve maritime governance.

OPERATIONS AND MISSIONS

The Fiscal Year (FY) 2023 Budget requests \$9.62B for Operations and Support (O&S). As Admiral Fagan noted in recent House testimony, a global presence creates security at home and strengthens allies and partners.

Defense Operations – Through the Department of Defense's (DOD) Global Force Management process, Coast Guard assets and personnel are actively supporting every geographic combatant commander and every numbered fleet. Operations include drug interdiction in SOUTHCOM, support of Naval Operations in CENTCOM, training allies in INDOPACOM, bolstering the rules based international maritime system in AFRICOM, and conducting crisis response in EUCOM. About half of the USCG's DOD support occurred in the SOUTHCOM region as a result of drug interdiction efforts, but this should not overshadow the critical support that the Coast Guard provides in the Persian Gulf, Southeast Asia, and AFRICOM where Coast Guard operations are expected to expand in coming years.

Arctic and Antarctic High-Latitude Operations – In increasingly navigable Arctic waters, presence equals influence. Elevated military and commercial activity in the Arctic regions increase risks to national security, maritime safety, and the environment.

- CGC Healy transited the Northwest Passage and circumnavigated North America, as scientists onboard mapped the seafloor and analyzed meltwater from Greenland's glaciers. This work improved navigation routes and advanced the scientific understanding of the ways the ocean, atmosphere, and ice interact in a changing climate.
- National Security Cutters Kimball and Bertholf deployed to the Bering Sea and monitored a Chinese naval Surface Action Group operating 50-miles off the Aleutian Islands.
- In Antarctica, CGC Polar Star created a navigable path through ice as thick as 21-feet to enable the annual replenishment of America's McMurdo Station.

Drug Interdiction – The Coast Guard is the nation's first line of defense against drug smugglers seeking to bring illegal substances into the United States. Coast Guard interdictions account for more than half of all U.S. government seizures of cocaine each year. In FY 2021 alone, the Coast Guard removed over 381,000 pounds of cocaine and over 71,000 pounds of marijuana worth an estimated \$7.2B in wholesale value and detained 635 suspected smugglers for prosecution.

Illegal, Unreported, and Unregulated Fishing (IUUF) – IUUF is a long-standing and increasing global challenge, where distant fishing fleets poach diminishing fisheries in others' territorial seas and Exclusive Economic Zones (EEZs). With 3.3 billion people, nearly half the world's population, relying on fish as a diet staple, this persistent and aggressive poaching could become a flashpoint for conflict. In September 2020, the Coast Guard published the "IUUF Strategic Outlook," to articulate a strategic roadmap for an effective international response, including targeted enforcement operations,

expanding multilateral fisheries cooperation, and modeling responsible state behavior.

Cyber Defense of Coast Guard and MTS assets – Increasing cyber threats, to more technically complex vessels and critical port infrastructure, are persistent. In response, the Coast Guard published the “Cyber Strategies Outlook 2021” in August 2021, describing prevention and response strategies to protect the MTS.

- The FY 2023 Budget request promotes continued efforts to modernize and protect the Coast Guard’s networks pursuant to Executive Order 14028 on “Improving the Nation’s Cybersecurity,” while positioning the Service to have the robust suite of cyber tools and professionals necessary to keep pace with technological advances and increasing cyber threats.
- Additionally, the Coast Guard continues to leverage the momentum of recent Congressional support for the Service’s Technology Revolution, a “Whole of Service” effort to ensure the workforce has reliable, mobile, and integrated information systems to leverage data and empower operations.

ACQUISITIONS

The FY 2023 budget requests \$1.65B for Procurement, Construction, and Improvement (PC&I) in support of the Coast Guard’s largest recapitalization program since World War II. Key acquisitions include:

National Security Cutter (NSC) – These 418-foot cutters feature greater sustained transit speeds, endurance, and range than legacy assets and are capable of operating in the most demanding open ocean environments, including the Northern Pacific, the drug transit corridors of the South Pacific, and the contested South China Sea. Congress has funded the construction of 11 hulls, which is an increase above the original NSC Program of Record of eight hulls. Hull #10, USCGC Calhoun, was christened in June 2021 with delivery expected in FY 2023. Funding for post-delivery activities and future logistics requirements such as sparing and C5I updates are critical for maintaining these assets.

Polar Security Cutter (PSC) – The Polar Security Cutter is the first heavy icebreaker the U.S. has built in nearly 50 years. These vessels will provide the strategic global reach and capabilities to ensure a year-round U.S. presence in the Arctic and Antarctic regions in support of the National Security Strategy and the National Defense Strategy. These unique cutters will be able to operate in extreme environments worldwide, including the high-latitude polar regions and the tropical transit zones. Under the Coast Guard’s “6-3-1” approach to recapitalizing the polar icebreaker fleet, the Service plans to build six cutters for the high-latitudes, at least three of which must be heavy. While “6-3-1” remains the Coast Guard’s near-term vision of ice-breaking capability, the Coast Guard continues to assess mission requirements and capability gaps that ultimately drive fleet-mix decisions. Construction on PSC #1, the future CGC Polar Sentinel, is projected to begin in 2023.

To provide a near-term capability, the FY 2023 Budget request also

includes \$150 million for the acquisition, modification, and operation of a commercially available polar icebreaker to add near-term national capability in the Arctic, train icebreaker sailors, and help inform capability requirements for the future acquisition of the medium Arctic Security Cutters (ASCs).

Offshore Patrol Cutters (OPC) – With 25 hulls in the OPC Program of Record, the 360-foot OPCs will replace the 50-year old medium endurance cutters (WMECs), which lose nearly 500 patrol-days per year due to unplanned maintenance and repairs. The OPC is more capable than the WMEC with advanced electronics, communications, and operational capabilities. The OPC acquisition will expand the Coast Guard’s capability to secure the U.S. border and approaches, disrupt transnational criminal organizations and other illicit actors, prevent unlawful immigration, and enhance national preparedness. Construction on the first three hulls (CGC Argus, Chase, and Ingham) is underway, with the FY 2023 Budget requesting \$650 million for the construction of the OPC #5 and long lead-time materials for OPC #6. Austal USA of Mobile, Alabama was awarded the Stage 2 contract in June 2022 to build up to 11 hulls.

Fast Response Cutters (FRC) – The 65 hulls in the FRC Program of Record are replacing the Island-class 110-foot patrol boats. The FRCs feature advanced command, control, communications, computers, intelligence, surveillance and reconnaissance equipment; over-the-horizon cutter boat deployment to reach vessels of interest; and improved habitability and seakeeping. Six FRCs will be deployed to support the Navy’s 5th Fleet in Bahrain for Persian Gulf operations, including Hull #46, USCGC John Scheuerman, and Hull #47, USCGC Clarence Sutphin, Jr, which arrived in their new homeport in Manama, Bahrain in September 2022.

Waterways Commerce Cutters (WCC) – The Coast Guard’s inland tender fleet maintains 28,200 aids to navigation along 12,000 miles of inland waterways to facilitate the annual movement of 630 million tons of cargo valued at \$5.4 trillion through the MTS. The current inland tenders have been in operation for an average of more than 55 years and are approaching obsolescence. In the 30-hull Program of Record, three variants are planned, each with greater speed, endurance, and deck-load capacity than the current fleet. The FY 2023 Budget request includes \$77 million to support the detailed design and construction of the first articles.

Aircraft – Over 200 Coast Guard aircraft fly over 47,000 sorties every year. The Coast Guard’s fixed wing fleet consists of the long-range HC-130 Super Hercules and the medium-range HC-144 and HC-27; and its rotary-wing fleet consists of the MH-65 and MH-60. The FY 2023 Budget request continues both rotary and fixed modernization efforts by requesting \$127.5 million and \$50 million for each fleet respectively. The Coast Guard is investing significantly in its rotary fleet to sustain capability until DOD Future Vertical Lift technologies become available in the 2040s. The Coast Guard is making structural improvements to both the MH-65 and MH-60, in addition to upgrades to the MH-65 cockpit. Furthermore, the Coast Guard is using retired Navy hulls to grow its MH-60 fleet. The Coast Guard is missionizing

its medium-range fixed wing fleet by installing new surveillance and communications suites to enhance performance across the Coast Guard's diverse mission set. Additionally, in August 2022, the Coast Guard accepted delivery of a new C-37 Long Range Command and Control Aircraft with state-of-the art communications capabilities.

NEW INITIATIVES

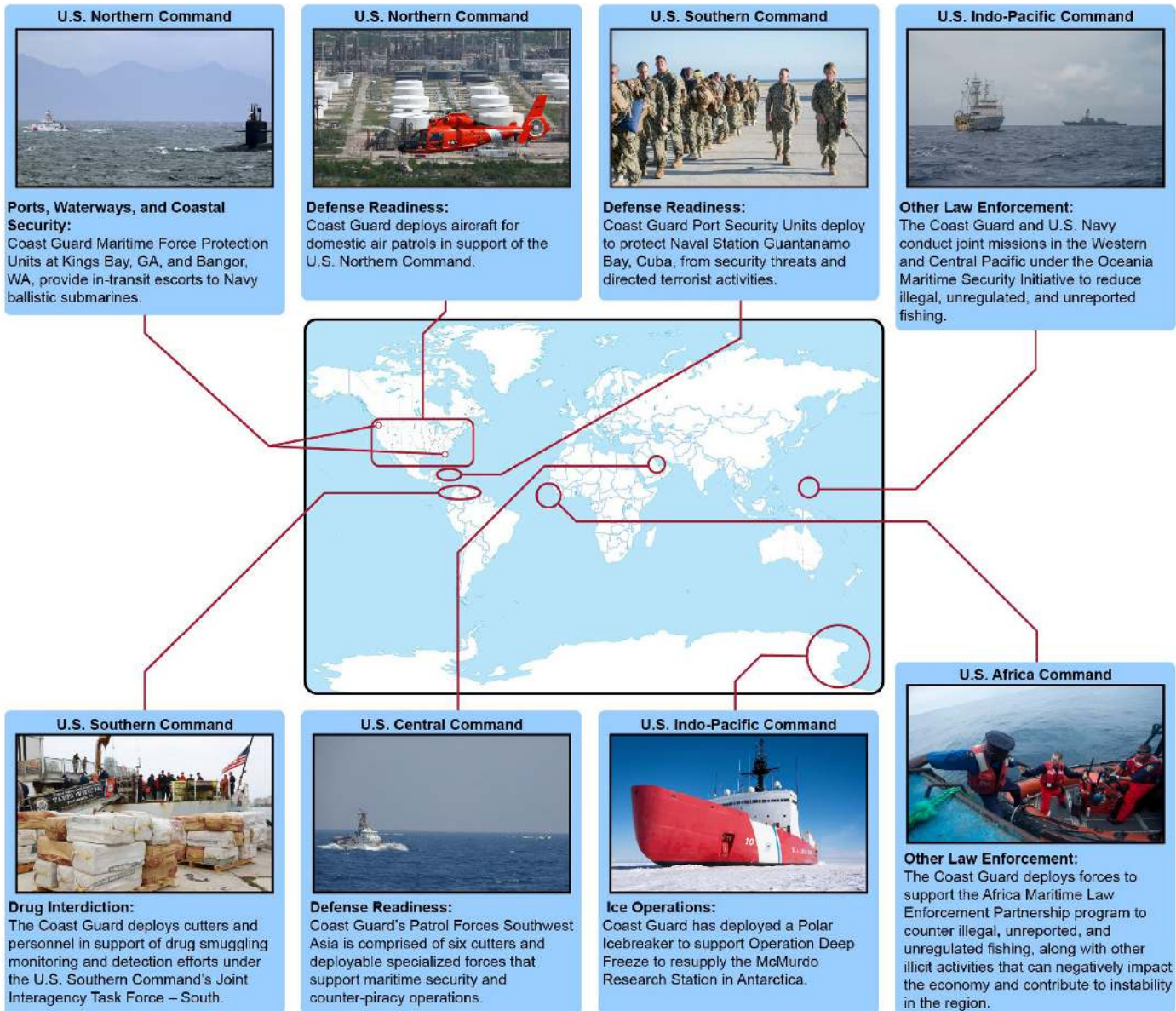
Shore Infrastructure – The Coast Guard has seen considerable Congressional budgetary support for the sustainment, recapitalization, and modernization of its aging shore infrastructure footprint. The Service is currently executing numerous construction and improvement projects to improve shore facilities, including:

- \$429 million was provided in the FY 2022 Infrastructure

Investment and Jobs Act (IIJA) to fund 12 projects that include the construction of Child Development Centers, improvements to the Coast Guard Academy, and the recapitalization of multiple family housing units.

- The FY 2023 President's Budget includes targeted investments to improve the condition of aging shore facilities and to prepare the Service for the arrival of its future fleet of Fast Response, Waterways Commerce, and Polar Security Cutters.
- Continued development of operational hubs for major cutters to streamline support for operational assets and provide geographic stability for personnel in homeports like in Charleston, SC, Seattle, WA, and Newport, RI.

New Medical Health Record system – The Coast Guard is in the



Source: GAO analysis of Coast Guard information. | GAO-21-104741

process of implementing MHS Genesis, a new electronic health record system that will replace paper medical and dental records. The new electronic health record system is an important step in modernizing the Service's healthcare by providing greater speed and efficiency, as well as allowing direct electronic information exchange with the Department of Defense, Veterans Affairs, and commercial care providers.

IT is an essential operating platform supporting Coast Guard missions – Shifting to DOD 365 Cloud Computing has enabled the workforce, including Reservists, to access their work accounts from personal computers with use of a simple Common Access Card (CAC) reader device.

- By November 2022, it is projected that the Personnel Electronic Records Management System will go live to enable members, including retirees to have “on demand” access to their military personnel records.
- The Coast Guard has started replacing all 48,000 Coast Guard standard computer workstations with modern mobile hardware and 20,000 new laptops.
- Training Delivery and mobility is being enhanced by moving to more “on demand” e-learning and unit-administered on-the-job training for Apprentice Marine Inspectors and Vessel Examiners.
- Collecting, Using, and Interpreting Data via “Surveyor,” a new big-data platform under development, will integrate data across the Service to reduce the burden of manual entry, but also enable data-driven decisions in the field.

Coast Guard Reserve Force. The Coast Guard's Strategic Planning Directive and “Doctrine for the U.S. Coast Guard Reserve” (Pub R) brings strategic intent and operational direction to the Coast Guard Reserve. The Coast Guard leverages specific Reserve operational requirements in Expeditionary Warfare, Boat Forces, Law Enforcement, Cyber, Environmental Response, Contingency Preparedness & Response, Mission Support, Port State Control, and Intel, to respond to growing national demands and support national strategic priorities. As a result, the Coast Guard Reserve is able to effectively increase the active-duty end-strength by 13%.

Unfunded Priorities List. Like the other Armed Services, the Coast Guard is required to annually submit a list of unfunded priorities associated with an operational need. Recently, Congress has funded many of the Service's highest priority needs. This year, the Coast Guard's “FY 2023 Unfunded Priorities List” report to Congress included 35 discrete needs, totaling \$1.18B. The list includes both Procurement, Construction, and Improvements (PC&I) and Operations & Support (O&S) budget items, including:

1. Procurement, Construction & Improvements (PC&I)
 - Rebuilding Operational Capacity;
 - Major Acquisition Systems Infrastructure;
 - Housing, Family Support, Safety, and Training Facilities; and
 - Shore Construction Addressing Facility Deficiencies.
2. Operations & Support (O&S)
 - Personnel Readiness; and
 - Asset Readiness.

The Navy League of the United States recommends:

1. Continuing to invest in the transformation of the Coast Guard's workforce, including support to further develop and modernize recruiting, training, retention, healthcare, child and family support, and personal and professional development.
2. Maintaining full funding for the Service's largest recapitalization effort since World War II, with particular focus on:
 - the Polar Security Cutters (PSCs);
 - the Offshore Patrol Cutters (OPCs);
 - the Waterways Commerce Cutters (WCCs); and
 - the transition to an all MH-60 fleet.
3. Accelerating investment in technology to include continuation of the Coast Guard's Technology Revolution initiative and additional funding to support the construction of resilient infrastructure.
4. Investing \$300M in continued funding for the highest priority needs from the Coast Guard's annual Unfunded Priorities List to address Service needs for operational assets, shore infrastructure, and personnel support.
5. The Coast Guard, Navy, and Marine Corps review the Tri-Service Strategic Plan every four years.





U.S.-FLAG MERCHANT MARINE

The National Security Directive on Sealift, NDS 28 states, “Sealift is essential both to executing this country’s defense strategy and to maintaining a wartime economy. ... The United States’ national sealift objective is to ensure that sufficient military and civil maritime resources will be available to meet defense deployments and essential economic requirements in support of our national security strategy. ... The U.S.-owned commercial ocean carrier industry, to the extent it is capable, will be relied upon to provide sealift in peace, crisis and war. This capability will be augmented during crisis and war by reserve fleets comprised of ships with national defense features that are not available in sufficient numbers or types in the active U.S.-owned commercial industry.”

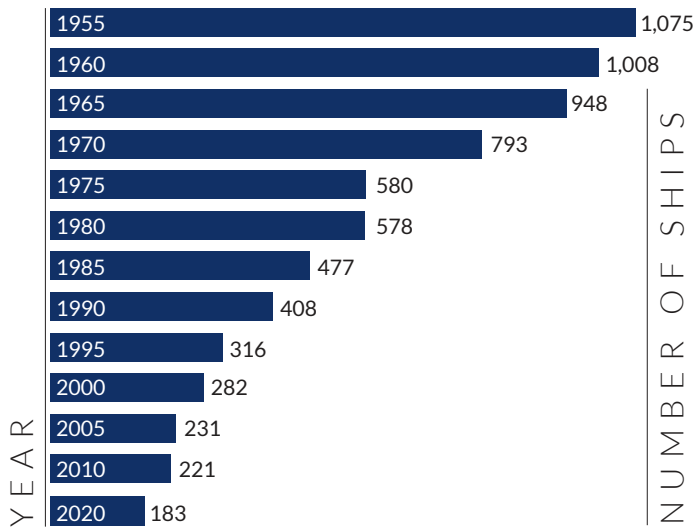
There are now serious challenges to meeting these objectives. The nation can no longer deploy and sustain forces in protracted wartime operations since the 188 large oceangoing U.S.-flag ships operating in foreign and domestic trades are about 50 ships short of being able to provide the pool of skilled U.S.-citizen merchant mariners to crew each commercial and government-owned reserve sealift vessel during protracted wartime operations. Additionally, due to age and readiness issues, the size of the Navy’s 15-ship surge sealift fleet has been reduced to 7 vessels and transferred to the Maritime Administration’s Ready Reserve Force (RRF) which was also reduced by 5 special mission ships due to changes in requirements. Only two used RO/ROs have been procured in 2022 to compensate for this loss

in sealift capacity so that the surge sealift fleet now totals 50 ships (all in the RRF) vice 61 in 2021. Action needs to be taken now to rebuild our sealift capabilities expected to operate in contested environments in support of the new National Defense Strategy that focuses on peer competitors, Russia and China. In the future, we will also need additional sealift for economic security to support our nation’s peacetime and wartime economy in light of China’s aggressive economic sanctions against nations that don’t support its territorial claims and policies which run counter to international norms and law. A new strategy should be developed to provide a roadmap for cost-effective modernization of sealift capabilities that focus primarily on U.S.-flag commercial ships in domestic and foreign trade fleets (per NSD 28), and secondarily on government-owned, U.S.-built assets in reserve fleets to meet unique national security needs at moderate risk.

The domestic component of the U.S.-flag fleet is governed by the Jones Act, which requires vessels in domestic waterborne trade to be owned by U.S. citizens, built in the United States, U.S.-flagged and crewed by U.S. mariners. This fleet stabilized at just over 90 oceangoing ships in recent years due to recent recapitalization of ships in the Hawaii and Puerto Rico trades and tankers to transport shale oil. This is the majority (91 of 178 as of July 15, 2022) of oceangoing ships under the U.S. flag. Without the Jones Act, the Coast Guard and Customs and Border Protection would face the new burden of ensuring foreign mariners are properly vetted, including work permits, at hundreds of inland waterway locations to preclude homeland security incidents. The Jones Act keeps American shipping companies, shipyards, mariners and thousands of people working.

The number of non-Jones Act U.S. vessels in international trade has now stabilized at about 87 ships (though it will increase by 10 ships with an implementation of the Tanker Security Program (TSP)) in recent years after a gradual but significant decline in government-impelled cargo due to reduced military operations in Iraq and Afghanistan, reduction in the U.S. global military presence, legislation that reduced cargo preference requirements for food

Total U.S. Flag Ships by Year



* Dates as of January 1; Vessels of 10,000 DWT or greater, includes Great Lakes carriers.
Source: U.S. Maritime Administration.

aid, and challenges related to uniform implementation of cargo preference across federal activities as cited in a recent GAO report. The Maritime Security Program (MSP) fleet of 60 follow-on surge and sealift sustainment vessels and the newly established TSP of 10 product tankers make up 72% of the total U.S.-flag commercial fleet in foreign trade. This fleet is given cost-offsetting stipends to operate under the U.S.-flag. The remaining roughly 27 other ships are supported only by preference cargoes or long term MSC charter arrangements. It would cost approximately \$13 billion in taxpayer funds to replicate vessel capacity alone without the MSP. Additionally, most RRF vessels now average more than 47 years old. Without substantial increases to future shipbuilding budgets, there will not be enough funds to recapitalize these ships during the next decade when they reach the end of their expected service lives. While some of these ships can have their lives extended five or 10 years, and some can be replaced by used vessels, insufficient funds have been programmed to acquire the mix of foreign-built used vessels and new U.S.-built vessels to do so in accordance with current law.

Even if the reserve fleet's age and readiness issues are fixed, we still cannot operate all the ships for extended periods because the commercial U.S.-flag oceangoing fleet is too small to provide the requisite crews in wartime. Five years ago, a working group comprising members from U.S. Transportation Command, the Office of the Secretary of Defense, the Coast Guard, Navy and MARAD, assessed that we have a shortfall of 1,839 mariners to crew all U.S.-flag commercial and government reserve sealift vessels during a full mobilization for a sustained period of more than six months. The situation is likely worse now due to COVID-19 which has resulted in significant retirements of senior officer personnel without replacement and reduced recruitment for entry-level positions due to publicized cultural issues (SASH) that discourage women from entering and remaining at sea.

This situation calls for a new maritime transportation strategy that generates future sealift requirements and capabilities to support the new National Defense Strategy focused on peer competition with Russia and China. A National Maritime Transportation Strategy is also needed to recommend legislation, regulatory and policy changes with associated funding priorities to reverse the decline in the U.S. Merchant Marine operating in international trade, and the wider U.S. maritime industry, from shipbuilding to port infrastructure in support of U.S. economic security. The previous sealift requirement was based on post-Cold War scenarios, such as major ground force movements to Iraq in an uncontested environment. Now sealift will have to support distributed maritime operations in the Pacific contested from ports of embarkation (POE) to ports of debarkation — that likely will mean attrition of ships. And, the last time the additional U.S.-flag requirement to support the peacetime/wartime industrial base was quantified was in 1989, at the end of the Cold War, by the Commission on Merchant Marine and Defense. It recommended a U.S.-flag fleet of 650 ships for national/economic security, when we had 636 ocean-going ships under U.S.-flag (more than 3x what we have today). Until the new National Maritime Transportation Strategy quantifies a new U.S.-flag requirement, we can only suggest options for generating the needed sealift capabilities, with the future fleet primarily depending on active commercial U.S.-flag ships with national defense features being the foundational principle. Specialized reserve fleet ships with no commercial viability should be used only when necessary.

Options could include the following:

- 1) **Expand the domestic "Jones Act" fleet** with incentives to attract cargo to coastwise services of dual-use vessels (commercial ships with military utility-installed national defense features). These commercial ships would alleviate congestion, road wear and pollution along the I-5/I-95/I-10 corridors in peacetime by carrying domestic 53-foot tractor trailers/boxes along these American Marine Highways (AMHs), while also being quickly available (less than five days) to support a major deployment of military equipment through participation in the Voluntary Intermodal Sealift Agreement program. This program, in which all MSP vessels and at least 50% of the Jones Act fleet participate, fulfills the intent of the national sealift policy that commercial ships have priority in meeting sealift requirements. The Title XI Federal Ship Financing Program and Capital Construction Fund (CCF) can partially support recapitalization of privately-owned Jones Act tonnage to meet the AMH shipping needs.
- 2) **Expand the Maritime Security Program** to meet less time-sensitive sealift needs and fund an **expanded "Tanker Security Program"** beyond 10 authorized tankers to address the tanker shortfall (number to be publicly released by USTRANSCOM) to support Navy and Air Force operations in a major Pacific War, as well as any others needed to support economic security by the Tanker Requirement Committee established under the Voluntary Tanker Agreement.

3) Expand existing government (e.g., food aid) cargo preference programs and create new commercial cargo preference programs such as the Energizing American Shipbuilding Act which would generate additional U.S.-flag and U.S.-built ships, help maintain the shipbuilding industrial base and provide crews for reserve fleet ships. This bill would require a percentage of liquefied natural gas and crude oil exports to travel on U.S.-built, U.S.-flag ships and would help stem the decline of U.S. shipping in foreign trade, boost mariner employment and provide additional work for U.S. shipyards. Similarly, a program for automobile exports and imports should be supported to increase the number of militarily useful ships under U.S. flag.

4) Construction of new sealift ships to meet only those specialized sealift requirements that cannot be met by commercially available U.S.-flag ships.

5) Acquisition of used foreign hulls to recapitalize RRF Roll-on/Roll-off ships only if it can be proven that actively sailing commercial ships cannot satisfy requirements without major risk to deployment execution at a substantially lower cost than dual-use AMH vessels.

Beyond the availability of sealift shipping, the recruitment and training of U.S. mariners is a critical issue. Though the number of ships has decreased, current mariner demographics and the demands of the offshore oil and inland waterway industries mean there is robust demand for new mariners. While the U.S. Merchant Marine Academy, six state maritime academies and upgraded industry training schools continue to produce graduates, the current mariner staffing shortfall is negatively impacting peacetime operations.

The Navy League of the United States recommends:

- Promptly completing the National Maritime Transportation Strategy as called for in the FY2023 National Defense Authorization Act.
- Maintaining and defending the Jones Act. Weakening the law would negatively impact national and economic security by diminishing the seafaring and shipbuilding industrial bases.
- Robust support of the Maritime Security Program. Congress should continue appropriating at least the funds authorized (starting at \$318M in FY2023) through 2035 to keep these 60 ships under the U.S. flag.
- Full funding for at least a 10 ship Tanker Security Program (more depending on USTRANSCOM publicly released requirement from the 2021 Tanker Requirements Study) and for a two ship Cable Security Program.
- Full funding for the RRF to match combatant commander readiness and capacity requirements as specified by the updated MCRS (Mobility Capability Requirements Study) in a yet to be released unclassified Executive Summary.
- Strong U.S. cargo-preference laws. We support restoring the requirement for 75% of Food for Peace cargoes to be carried on U.S.-flag ships (additional bulk ships legislatively permitted to accommodate the requirement) to increase the number of U.S.-flag ships and the mariners needed to operate them, as well as the Energizing American Shipbuilding Act for the carriage of domestic sources of LNG and crude oil.
- Building dual-use vessels. The Navy and MARAD should work rapidly on recapitalizing the RRF by operationalizing the dual-use vessel concept on AMH or propose another viable alternative. Legislative and policy changes should be enacted by fiscal 2024.
- Full authorized funding of the U.S. Merchant Marine Academy and six state maritime academies to meet the operational, maintenance and capital improvements requirements, including for the Student Incentive Program.
- Providing dedicated funding for the authorized Maritime Centers of Excellence, including graduate studies, to attract new entrants into the maritime industry and to provide funding for K-12 programs to help attract, educate and train the next generation of mariners.
- Increasing the attractiveness of the merchant marine profession through increased diversity of the workforce resulting from cultural changes such as the MARAD EMBARC program.
- Adjusting budgetary and legislative measures that preclude capital and operations-related changes in the application of U.S. tax laws. This is to counter Internal Revenue Service advice that land components of intermodal transport activities do not qualify as “qualified shipping activities” under the tonnage tax law and that MSP payments are subject to regular corporate rates of taxation, which could seriously impact the cost to operate vessels under the U.S. flag, jeopardizing their economic viability.
- Repealing current Internal Revenue Code language so that Capital Construction Fund deposits and earnings are treated the same way for purposes of the corporate alternative minimum tax as they are under the regular corporate income tax, helping to expand U.S. shipping by making the financing of U.S. ship construction less expensive.
- Ensuring a strong strategic sealift officer component in the U.S. Navy Reserve. This ensures critical skills and experience are retained to support Navy and sealift transportation and to provide a backup pool of licensed mariners.
- Implementation of a robust military-to-mariner program. This facilitates the transition of former Army, Navy and Coast Guard Sailors/Mariners to certificated/licensed merchant mariner positions to help address projected shortfalls.
- Updating the five-year-old mariner availability study to determine adequacy of the current STCW qualified ocean-going workforce to crew surge sealift ships for initial activation and protracted periods of operation.
- Use of National Defense Features. Navy funding of such features on both U.S.- and foreign-built vessels (e.g. TSP CONSOL systems) is needed to enhance their military utility in support of contingency operations.
- Transferring RRF recapitalization responsibility from the Navy to MARAD, using best commercial practices for both new construction and used ship acquisitions with requisite appropriations to meet USTRANSCOM/Navy wartime requirements.



MARINE TRANSPORTATION SYSTEM

The U.S. Marine Transportation System (MTS) consists of waterways, ports and their intermodal connections, vessels and vehicles. The more than 41,000 American-built, American-crewed vessels operating in domestic maritime transportation contribute more than \$150 billion per year to the U.S. economy. These vessels move more than one billion tons of cargo annually and create over 650,000 jobs according to the American Maritime Partnership. Additionally, annual taxes generated by the domestic fleet top \$16 billion, and any increased revenue should be invested in reducing the billions of dollars in backlogged maintenance to upgrade/replace much of the obsolete and unreliable river lock-and-dam infrastructure. The system can carry huge additional amounts of freight and petroleum products at a fraction of the cost of other transport modes.

The U.S. Army Corps of Engineers dredging and new construction program funds projects such as a second Poe-sized lock on the Great Lakes, which will prevent a shutdown of the Great Lakes trade and economy if the current single lock fails. Other programs fund the U.S. Coast Guard upgrades to aids-to-navigation in river and harbor channels that connect U.S. ports to the world. The Harbor Maintenance Trust Fund (HMTF), resourced from the Harbor Maintenance Tax (fees of about \$1.7 billion a year), was intended to pay for the construction and maintenance of harbor and navigation

channels and aids when it was developed in 1986. The Water Resources Reform and Development Act (WRRDA) of 2020 set targets for increasing expenditures by using up the \$10B surplus by 2030 (amounting to total of \$2.33B for FY 2023) to reduce billions of dollars in project backlogs, including urgent investments to accommodate the larger ships using the expanded Panama Canal. Additionally, the Bipartisan Infrastructure Law of 2022 provides an additional \$450M/year through 2025 for port improvements to counter impacts of climate change and to enhance supply chain throughput and included \$2.5B in inland waterways projects.

As one of the world's trade leaders, the United States requires a technologically advanced, secure, efficient and environmentally sound MTS. Our economic prosperity is dependent on international trade, of which more than 99% of overseas trade, by weight (excluding Canada and Mexico), moves by water. Roughly \$2 trillion of trade flows through U.S. ports. Trade flowing through the nation's ports and waterways is expected to increase substantially by 2030, creating greater congestion on overburdened land, port, water, passenger and freight delivery systems. Only a truly seamless, integrated, multimodal transportation system with an expanded AMH system as part of the National Freight Strategic Plan and associated National Maritime Transportation Strategy will meet the nation's growing needs.

The Navy League of the United States recommends:

- Increased funding for marine highway corridors, connectors, and state freight systems as part of the National Freight Strategic Plan to improve infrastructure and developing AMH vessels to expand the use of coastal waterways for freight and passengers.
- Funding MARAD's "green" programs, with resources to promote sustainability throughout the MTS, including research and technology in areas such as ballast water, port and vessel emissions, alternate fuels, and energy management.
- Funding Title XI: At least \$30 million is needed now, followed by about \$30 million in annual appropriations to keep up with the potential demand, including Jones Act ships in support of the offshore wind industry.
- A Harbor Maintenance Tax exemption for waterborne cargo shipped between U.S. ports. Taxes should only be paid when imports first land in the United States to eliminate a disincentive for increased domestic waterborne transport.
- Full funding for the U.S. Army Corps of Engineers dredging and new construction projects at the amount called for in the 2022 WRRDA.
- Use of the Inland Waterway Trust Fund to repair/replace aging infrastructure on the inland waterway system.
- Increased investment in maritime research, and development on par with other modes of transportation.
- Priority access to terminals, vessel berths, and staging areas at the 17 commercial strategic ports for military cargo that support the short-notice military surge deployments under the National Port Readiness Network. Funding for a MARAD program for contingency contracts may be needed to ensure strategic seaports can guarantee access to staging areas, equipment, and facilities to support major force deployments.
- Efforts to develop a national capacity for the MTS to recover from major disruptions to ensure the continuity of key maritime activities. This should include the maintenance of a robust U.S. salvage vessel and oil spill recovery capability to ensure expeditious clearing of vital channels and harbors.
- Increased share of grants for funding intermodal and freight-related maritime projects from provisions in the Infrastructure for Rebuilding America and Better Utilizing Investments to Leverage Development Transportation Discretionary Grants programs. These grants, and the credit assistance provided through the Department of Transportation's Transportation Infrastructure Finance and Innovation Act and Railroad Rehabilitation Improvement Financing programs, can help improve the movement of freight through ports and reduce congestion.



INDUSTRIAL BASE

The United States must maintain its industrial base capacity and capability. Our industrial base — and our “intellectual industrial base” of research institutions — breeds competition that results in greater innovation. This innovation ensures our Sailors, Marines, and Coast Guard men and women have the best that American industry can deliver. A strong industrial base guarantees we can rapidly build capability and capacity to enable us to prevail in times of war.

Since the end of the Cold War, the defense sector has consolidated substantially, transitioning from 51 to 5 aerospace and defense prime contractors. As a result, DoD is increasingly reliant on a small number of contractors for critical defense capabilities. Further consolidations that reduce required capability and capacity and the depth of competition would have serious consequences for national security resulting from increased cost and decreased incentive to innovate.

Over approximately the last three decades, the number of suppliers in major weapons system categories has declined substantially. According to the Department of Defense’s “State of Competition within the Defense Industrial Base” report: tactical missile suppliers have declined from 13 to 3, fixed-wing aircraft suppliers have declined from 8 to 3, and satellite suppliers have halved from 8 to 4. Today, 90% of missiles come from 3 sources. As a result, promoting competition and ensuring it is fair and open for future programs is a critical priority.

Additionally, peacetime missile and precision munition production capacity has been funded at such an inadequate rate that it would take years to replace expected consumption in the first few weeks of a future major conflict, just as it took several years to replace the Tomahawks used during the Gulf Wars. However, in contrast to conflicts since the end of the Cold War, future protracted conflicts with a peer competitor will be subject to contested supply chains, and we won’t be able to wait years for weapons resupply. We must build up stocks of critical weapons ASAP and develop secure means of resupply in addition to establishing the ability to rapidly generate additional production capacity to meet demands after wartime reserve stocks are consumed.

As for the shipbuilding industrial base, 14 U.S. shipyards that constructed ships for the Navy have closed since the 1960’s, and three

have left the defense industry. Only one new shipyard has opened. As a result, just seven shipyards, owned by four prime contractors, build large Navy warships today.

Among the seven large U.S. Navy shipyards, ship-class specialization is the norm. This lack of competition has resulted in shipbuilding costs exceeding inflation so that fewer ships can be acquired annually even if annual appropriations increase in step with inflation. A similar situation can be found in the tactical aviation industrial base.

Going one level deeper, the number of Navy shipbuilding suppliers for nuclear-powered submarines and aircraft carriers dropped by more than two-thirds over the past 25 years, and more than 65 percent of remaining suppliers are the single- or sole-source for their product. This sharp contraction occurred after the Navy dropped from procuring four submarines per year from 1977 through 1996 to just one submarine per year from 1998 through 2010 (with the exception of zero submarines being procured in 2000). The submarine industrial base has lost thousands of suppliers since the Cold War and must expand.

Submarines have unique requirements of stealth, endurance, and survivability which have no commercial equivalency. This requires a robust industrial base with unique capabilities.

The Navy’s 2023 budget reflects the urgency to address this issue, requesting \$541 million to “invest” in the submarine industrial base. This is quite significant, as it will enable the service and its industry partners to train and retain the skilled workforce needed to propel sustained construction and innovation. The investment will also support large-scale increases in supply chain capacity, strategic outsourcing to more vendors, and the core shipbuilding infrastructure itself.

Additionally, to expand the production of Virginia-class submarines, the White House invoked the Defense Production Act, or DPA to “create, maintain, protect, expand, or restore domestic industrial base capabilities essential for the national defense,” purchase “an industrial resource or a critical technology item for government use or resale,” encourage the “mining of critical and strategic materials” and “the development of production capabilities,” among other actions.

“Our industrial base – and our “intellectual industrial base” of research institutions – breeds competition that results in greater innovation.”

The commercial shipbuilding industrial base also has similar concerns. Several of the larger classes of surface combatant and auxiliary ships have been built in only one or two shipyards. As a result, price and technical competition are limited and the ability to increase production to meet future requirements is constrained without major infrastructure investments. Low throughput rates have also caused major cost increases from domestic suppliers which also may need financial support to ensure domestic or allied sources of critical components and weapon systems.

The ship repair industrial base presents its own set of problems. The Navy's four government-owned shipyards are incapable of keeping up with the current nuclear ship repair demand and they need major capital investments to upgrade infrastructure and modernize workflows. Additionally, drydocks need to be upgraded/increased to accommodate the large Virginia payload module and Columbia class submarines. To address these deficiencies, the Navy established the Shipyard Infrastructure Optimization (SIOP) program, initially programming \$21B expenditures over 20 years. However, recent bids indicate that much more funding will be needed and the likelihood of increased submarine production will require acceleration of this effort. The movement of some nuclear ship repairs to commercial yards has not gone as planned and will require some additional time and expense before it can accommodate the additional workload. Conventional ship maintenance repair has been hampered by the lack of dry-dock facilities, especially on the West Coast. Investment to expand such capabilities will require new acquisition strategies that ensure stable workloads to justify such expenditures.

While the shipbuilding industrial base is probably in the worst shape, other segments require accelerated focus and support. These challenges include relying on foreign and single-source suppliers for critical materials, replacing obsolete parts on weapon systems that could be in operation for decades, and protecting weapon systems from cybersecurity threats, among others.

We must do more to protect the intellectual property developed by our industrial base so that the technical edge it provides, such as in the areas of directed energy, artificial intelligence, and hypersonics, is not stolen by our adversaries either through cyber-attack or industrial espionage. Our technological edge must be maintained since we no longer have the capacity edge in numbers of missiles, aircraft, or ships.

Recently, the ongoing COVID19 pandemic highlighted vulnerabilities in the defense industrial base, primarily in the aviation, space, shipbuilding, and microelectronics sectors. As a result, DOD plans to use \$687 million in Defense Production Act Title III funding, appropriated by Congress in the CARES Act, to address risks and offset the financial distress in the Defense Industrial Base. The COVID19 pandemic also highlighted vulnerabilities in our transportation supply chains, showing how the economy can be severely impacted by a natural disaster event. This is just one of many key infrastructures that have been shown to have little resiliency to perturbations. We now have to reverse the impact of decades in which we focused on efficiency over resiliency if we are to prevail in any future conflict with a peer competitor in a contested environment.

The Navy League of the United States recommends:

- Accelerated and additional funding to address Congressional and Administration identified shortfalls in the Defense Industrial Base to provide the capacity to produce major combat and weapon systems to support wartime operations with a peer competitor.
- Sizing the shipbuilding industrial construction and repair base via a national shipbuilding industrial base strategy, to meet the aspirational goal of the force structure that the Navy, USCG, and MARAD determines, while acknowledging the national fleet of the future will change in mix of manned and unmanned platforms and adapt to supporting more distributed operations to take back the initiative in a great power conflict.
- Full funding of the Navy's shipbuilding plan with stable long-term milestones to ensure the buildup of a more integrated and larger naval fleet in a way that allows the defense industrial base to make long-term investments to accommodate expected growth to counter the challenges from peer competitors such as China.
- Funding the expansion in the number of prime, second tier and below, competitors to create greater capacity, redundancy, and resiliency to accommodate the capacity buildup and technologic innovation necessary to deter and if necessary, defeat peer competitors.
- Increased and accelerated funding for the SIOP, to ensure the expanded submarine fleet can be properly maintained.
- Full funding of the procurement of sufficient weapons and munitions to meet initial operation plan requirements (war reserve stocks) until mobilized industrial base production can meet consumption since today's inventories are woefully inadequate to counter a peer competitor in a contested environment. Additionally, there has been substantial war-gaming support to justify a recommendation that the Navy fund vertical-launch system rearming capability at sea to allow combatants to remain on station for longer periods of time.
- Increased and accelerated investments in technologies that will provide a competitive edge, such as directed energy, artificial intelligence, etc., associated with programs to protect those technologies from cyber-attack and espionage.



CONCLUSION

The United States is entering an era of increasing instability in which the very foundations of our democratic institutions and national security are threatened more acutely than at any other time in recent memory. While we have closed out a 20-year chapter of armed conflict in the Middle East and Central Asia, newly emboldened near-peer adversaries such as China and Russia now seem intent on pressing their hegemonic agendas that directly challenge the existing rules-based global order. Global crises, such as climate change, are no longer relegated to the realm of academic discussion but have begun to transfigure international stability amidst historic floods, storms, heat waves, and elevated sea levels. And while the initial disruption caused by the COVID-19 pandemic appears to be diminishing, the aftermath of this virus will have profound impacts on the US and world economies, and populations, that will be felt for decades to come. This is a time for action, by all Americans working together, and in concert with our global allies. We must not fail to answer this call to preserve all that is right and just in the global order, as previous generations have done before us. The work ahead will be incredibly difficult and challenging for every citizen, but it must be done. Failure, as the familiar adage goes, is not an option.

The new National Defense Strategy has continued the narrative that our nation's defense posture needs to reorient our focus toward the Pacific even as we support Ukraine in defending itself against an unlawful invasion perpetrated by Russia and remain vigilant amid ever-present regional instabilities caused by Iran, North Korea, and extremist non-state actors. Regardless of these other threats, the continued rise of communist China represents the greatest danger America has faced since the end of the Cold War, as well as the greatest threat to international stability and to rule of law in the world's oceans. Our sea services, and our international partners and allies, must have the focus, resolve, and resources necessary to meet this challenge. It is imperative that our elected officials recognize the need to realign the priorities of the Defense Department budget

towards our sea services as they will serve as the tip of the spear in these new maritime threat environments. Achieving these goals will require a whole of government approach, as well as clear communication with the private sector and defense industrial base. And as our sea service leaders call for divestiture from legacy assets to focus investment on the high-end fight, Congress must be a partner in oversight and funding and must not hinder these critical efforts.

When we work together as a country, Americans have proven time and again that we can meet any challenge. But a highly polarized and unstable domestic political environment presents a significant obstacle that the American people and their political representatives must overcome. While congressional Democrats and Republicans should be applauded for helping to improve sea service readiness and strength, partisan political fights have had a significant impact on our nation's stability and on our global standing. The inability to pass a bipartisan national defense budget on time is a consistent and costly impediment to our defense industrial base, delaying new acquisitions designed to produce the future maritime force needed to thwart our adversaries' revisionist agendas.

This is a time for action, by all Americans working together, and in concert with our global allies. We must not fail to answer this call to preserve all that is right and just in the global order, as previous generations have done before us.

Our great nation stands on the precipice of many dynamic and complex challenges over the next several years. The sea service leaders have recognized this reality and combed through their budgets to find the dollars they can reassign to prepare for the future fight. But decisionmakers must understand that tough choices need to be made moving forward and cannot be postponed without imperiling our nation's security. With regards to future defense budgets, the sea services must start to receive the lion's share due to their forward posture and unrivaled role in confronting great power competitors across the maritime commons. Freedom of the seas comes with a price, and it must be paid with the input and oversight of Congressional decisionmakers. The Navy League is prepared to lead this fight through education and advocacy, and we hope that you will join us.

APPENDIX A

National Security Strategy (NSS)	National Defense Strategy (NDS)	National Military Strategy (2018)	Tri-Service Maritime Strategy (2020)	SECNAV	USN	USMC	USCG	US Flag/Merchant Marine
<p>Goal: A free, open, prosperous, and secure international order.</p> <p>Specifically:</p> <ul style="list-style-type: none"> Invest in the underlying sources and tools of American power and influence. Build the strongest possible coalition of nations to enhance our collective influence to shape the global strategic environment and to solve shared challenges. Modernize and strengthen our military so it is equipped for the era of strategic competition with major powers, while maintaining the capability to disrupt the terrorist threat to the homeland. 	<p>Protect the security of the American people</p> <ul style="list-style-type: none"> Expand economic prosperity and opportunities Realize and defend the heart of the American way of life <p>Specifically:</p> <ul style="list-style-type: none"> Defending the homeland, paced to the growing multi-domain threat posed by China Detering strategic attacks against the United States, Allies, and partners 	<p>Respond to Threats</p> <ul style="list-style-type: none"> Deter Strategic Attack (and proliferation of WMD) Deter Conventional Attack Assure Allies and Partners <p>Compete Below the Level of Armed Conflict (With a Military Dimension)</p>	<p>Calls for greater integration of CG/Navy/USMC operational concepts in day-to-day competition, conflict, and crisis.</p> <p>Specifically:</p> <ul style="list-style-type: none"> Generate Integrated All-Domain Power Strengthen our Alliances and Partnerships Prevail in Day-to-Day Competition Control the Seas Modernize the Future Naval Force 	<p>Maintaining Maritime Dominance in Defense of Our Nation</p> <ul style="list-style-type: none"> Expand Forward Presence Enhance Warfighting Readiness Innovate & Modernize Combat Climate Change <p>Empowering Our People</p> <ul style="list-style-type: none"> Eliminate Harmful Behaviors Leverage Naval Education as a Critical Warfighting Enabler Cultivate Talent & Teamwork Take Care of Our People <p>Strengthening Strategic Partnerships</p> <ul style="list-style-type: none"> Build Trust & Collaboration Modernize Business Systems to Enhance Performance & Affordability Strengthen Alliances and Partnerships 	<ul style="list-style-type: none"> Readiness Capabilities Capacity Sailors <p>Force Design 2045</p> <ul style="list-style-type: none"> Defend the Homeland with an assured nuclear deterrent from beneath the sea to deter nuclear and non-nuclear strategic attacks <ul style="list-style-type: none"> Control the seas to deter aggression against our allies and partners, and project power ashore as an integral part of the Joint Force 	<ul style="list-style-type: none"> Force Design Warfighting Education & Training Core Values Command & Leadership <p>Force Design 2030</p> <ul style="list-style-type: none"> Will be capable of successfully competing and winning in the gray zone Will be a single, integrated total force, and not distinct and semi-independent active and reserve components 	<p>Commandant's Intent: 2022</p> <ul style="list-style-type: none"> Maximize Readiness Today & Tomorrow Address the Nation's Complex Maritime Challenges Deliver Mission Excellence Anytime, Anywhere <p>USCG Strategy:</p> <ul style="list-style-type: none"> Transform our Total Workforce Sharpen our Competitive Edge Advance our Mission Excellence <p>CG strategic documents due for refresh:</p> <ul style="list-style-type: none"> Western Hemisphere Strategy (2014) Arctic Strategic Outlook (2019) Security Sector Assistance Strategy (2015) Human Capital Strategy (2016) Maritime Commerce Strategic Outlook (2018) IUU Fishing Strategic Outlook (2020) 	<ul style="list-style-type: none"> The US-owned commercial ocean carrier industry will be relied upon to provide sealift in peace, crisis, and war. Must be prepared to respond unilaterally to security threats in geographic areas not covered by alliance commitments. In addition to the US-flag fleet, we will rely on US-owned and allied shipping resources to meet strategic commitments to our established alliances. The DOD will determine the requirements for sealift for deploying forces, follow-on supply and sustainment, shipbuilding and ship repair. The Departments of State and Transportation, the Special Trade Representative, and other agencies shall ensure that international agreements and federal policies governing the use of foreign flag carriers protect our national security interests and do not place US industry at an unfair competitive disadvantage in world markets. Development and implementation of specific sealift and supporting programs will be made with full consideration of the costs and benefits involved.

2023 - 2024 AT A GLANCE

TOP THREE PRIORITIES FOR EACH SEA SERVICE

U.S. NAVY

Top 3 USN Priorities



1 Columbia-class SSBN

2 Maintain readiness and lethality across the Fleet



3 Increase Navy's budget to fund an aggressive ship-building plan

U.S. MARINE CORPS

Top 3 USMC Priorities



1 Light Amphibious Warship (LAW)



2 Long Range Precision Fires (Tomahawk and Ground-Based Anti-Ship Missiles (GBASM))



3 Resilient C4 and ISR Architecture

The United States is a maritime nation — we need to invest in our Sea Services to deter conflict, ensure open seas for commerce and reverse the damage to readiness from years of overuse and underfunding. We must make the right investments for a return to great power competition posited in the “National Defense Strategy” and “National Security Strategy” and begin strengthening our forces. Working toward the following priorities in the 118th Congress will be our primary role in this mission.

www.navyleague.org/programs/legislative-affairs

U.S. COAST GUARD

Top 3 USCG Priorities

1 Continuing to invest in the transformation of the Coast Guard’s workforce



2 Maintaining full funding for the Service’s largest recapitalization effort since World War II



3 Accelerating investment in technology; continuation of the Coast Guard’s Technology Revolution initiative; additional funding to support the construction of resilient infrastructure

U.S. MERCHANT MARINE

Top 3 USMM Priorities



1 Develop and rapidly implement a new National Maritime Transportation Strategy

2 Expand U.S.-flag Merchant Marine



3 Recruit, train and retain Merchant Marine workforce





The Navy League of the United States is a nonprofit organization dedicated to educating our citizens about the importance of sea power to U.S. national security and to supporting the men and women of the U.S. Navy, Marine Corps, Coast Guard, and U.S.-flag Merchant Marine and their families.

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