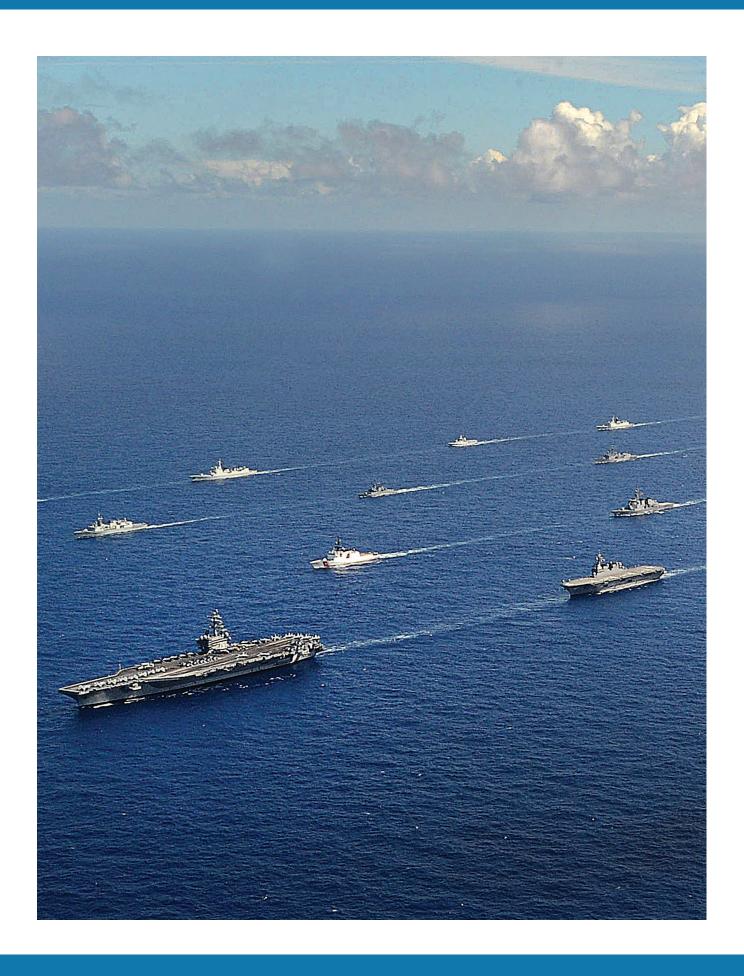


A Cooperative Strategy for 21st Century Seapower





PREFACE

merica's Sea Services—the U.S. Navy, Marine Corps, and Coast Guard—uniquely provide presence around the globe. During peacetime and times of conflict, across the full spectrum—from supporting an ally with humanitarian assistance or disaster relief to deterring or defeating an adversary in kinetic action—Sailors, Marines, and Coast Guardsmen are deployed at sea and in far-flung posts to be wherever we are needed, when we are needed. Coming from the sea, we get there sooner, stay there longer, bring everything we need with us, and we don't have to ask anyone's permission.

Our founders recognized the United States as a maritime nation and the importance of maritime forces, including in our Constitution the requirement that Congress "maintain a Navy." In today's dynamic security environment, with multiple challenges from state and non-state actors that are often fed by social disorder, political upheaval, and technological advancements, that requirement is even more prescient.

The United States Navy, Marine Corps, and Coast Guard are our Nation's first line of defense, often far from our shores. As such, maintaining America's leadership role in the world requires our Nation's Sea Services to return to our maritime strategy on occasion and reassess our approach to shifting relationships and global responsibilities. This necessary review has affirmed our focus on providing presence around the world in order to ensure stability, build on our relationships with allies and partners, prevent wars, and provide our Nation's leaders with options in times of crisis. It has confirmed our continued commitment to maintain the combat power necessary to deter potential adversaries and to fight and win when required.

Our responsibility to the American people dictates an efficient use of our fiscal resources and an approach that adapts to the evolving security environment. The adjustments made in this document do just that. Looking at how we support our people, build the right platforms, power them to achieve efficient global capability, and develop critical partnerships will be central to its successful execution and to providing that unique capability: presence.

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [i]

Seapower has been and will continue to be the critical foundation of national power and prosperity and international prestige for the United States of America. Our Sea Services will integrate with the rest of our national efforts, and those of our friends and allies. This revision to *A Cooperative Strategy for 21st Century Seapower* builds on the heritage and complementary capabilities of the Navy-Marine Corps-Coast Guard team to advance the prosperity and guarantee the security of our Nation. The demands of a changing world and the defense of the American people and our interests require nothing less.

RAY MABUS

Secretary of the Navy

FOREWORD

his maritime strategy describes how we will design, organize, and employ the Sea Services in support of our national, defense, and homeland security strategies. It also sets maritime priorities in an era of constrained resources, while emphasizing warfighting capabilities and forward naval presence to advance national interests today and guide preparations for tomorrow's challenges.

Forward naval presence is essential to strengthening alliances and partnerships, providing the secure environment necessary for an open economic system based on the free flow of goods, protecting U.S. natural resources, promoting stability, deterring conflict, and responding to aggression. As global maritime commerce expands, populations increase, competition for energy and natural resources grows, and advanced military technologies proliferate across the oceans and through the littoral, so too will challenges arise for anyone operating in those regions.

The American people will continue to rely on the Sea Services to respond to fast-changing and complex world events that threaten the security of the United States and our allies and partners. Our Sailors, Marines, and Coast Guardsmen stand ready to meet these challenges with the same determination and responsiveness they have demonstrated for more than two centuries.

JOSEPH F. DUNFORD, JR. General, U.S. Marine Corps Commandant of the Marine Corps

ONATHAN W. GREENERT Admiral, U.S. Navy Chief of Naval Operations PAUL F. ZUKUNFT^b
Admiral, U.S. Coast Guard
Commandant of the Coast Guard

















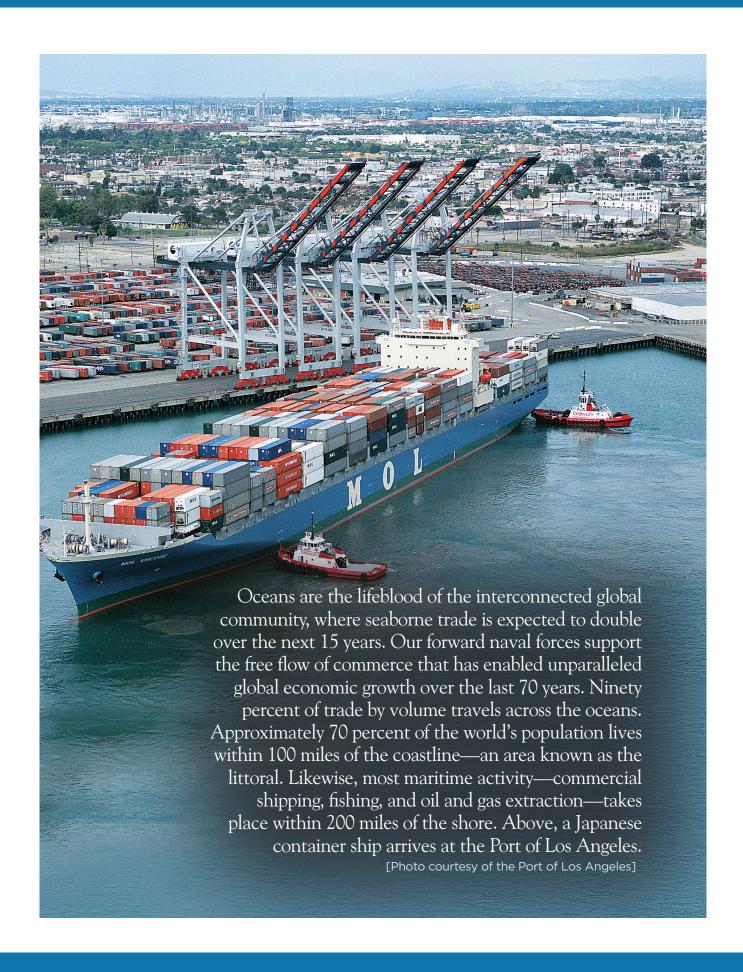


Our foremost priority remains the security of the American people, our territory, and our way of life.

CONTENTS

Introduction	1
Section THE GLOBAL SECURITY ENVIRONMENT	3
Geopolitical Changes Military Challenges	
Military Challenges.	0
Section II FORWARD PRESENCE AND PARTNERSHIP	9
•	13 14 16
Arctic and Antarctic 1	
Section III SEAPOWER IN SUPPORT OF NATIONAL SECURITY 1	9
All Domain Access 1 Deterrence 2 Sea Control 2 Power Projection 2 Maritime Security 2	22 24
Section IV FORCE DESIGN: BUILDING THE FUTURE FORCE 2	27
Flexible, Agile, and Ready Forces 2 People 2 Concepts 3 Capabilities 3	31

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [v]



INTRODUCTION

he United States of America is a maritime nation. For more than two centuries, the Navy, Marine Corps, and Coast Guard—the Sea Services—have operated throughout the world to protect American citizens and defend U.S. interests by responding to crises and, when necessary, fighting and winning wars. Since we published *A Cooperative Strategy for 21st Century Seapower* in 2007, changes in the security and fiscal environments, along with new strategic guidance, including the 2012 *Defense Strategic Guidance* and the 2014 *Quadrennial Defense* and *Homeland Security Reviews*, mandate an updated maritime strategy to ensure that we continue to advance our national interests in an increasingly complex and interdependent world.

Forward-deployed and forward-stationed naval forces use the global maritime commons as a medium of maneuver, assuring access to overseas regions, defending key interests in those areas, protecting our citizens abroad, and preventing our adversaries from leveraging the world's oceans against us. The ability to sustain operations in international waters far from our shores constitutes a distinct advantage for the United States—a Western Hemisphere nation separated from many of its strategic interests by vast oceans. Maintaining this advantage in an interconnected global community that depends on the oceans remains an imperative for our Sea Services and the Nation.

Today's global security environment is characterized by the rising importance of the Indo-Asia-Pacific region, the ongoing development and fielding of anti-access/area denial (A2/AD) capabilities that challenge our global maritime access, continued threats from expanding and evolving terrorist and criminal networks, the increasing frequency and intensity of maritime territorial disputes, and threats to maritime commerce, particularly the flow of energy.

In addition to the risks emerging in this turbulent 21st Century, there are opportunities as well—many facilitated by the Sea Services through routine and constructive engagement with allies and partners. Chief among them is the potential for a global network of navies that brings together the contributions of like-minded nations and organizations around the world to address mutual maritime security challenges and respond to natural disasters.

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [1]

This maritime strategy reaffirms two foundational principles. First, U.S. forward naval presence is essential to accomplishing the following naval missions derived from national guidance: defend the homeland, deter conflict, respond to crises, defeat aggression, protect the maritime commons, strengthen partnerships, and provide humanitarian assistance and disaster response. Our self-sustaining naval forces, operating in the global commons, ensure the protection of the homeland far from our shores, while providing the President with decision space and options to deny an adversary's objectives, preserve freedom of action, and assure access for follow-on forces.

Second, naval forces are stronger when we operate jointly and together with allies and partners. Merging our individual capabilities and capacity produces a combined naval effect that is greater than the sum of its parts. By working together in formal and informal networks, we can address the threats to our mutual maritime security interests. Maximizing the robust capacity of this global network of navies concept, we are all better postured to face new and emerging challenges.

Forward naval forces ensure the protection of the homeland far from our shores.

The Sea Services have historically organized, trained, and equipped to perform four essential functions: deterrence, sea control, power projection, and maritime security. Because access to the global commons is critical, this strategy introduces a fifth function: all domain access. This function assures appropriate freedom of action in any domain—the sea, air, land, space, and cyberspace, as well as in the electromagnetic (EM) spectrum.

This strategy informs naval force employment and describes a force that balances warfighting readiness with our Nation's current and future fiscal challenges. Our force employment approach aligns capability, capacity, and platforms to regional mission demands, ensuring that our most modern and technologically ad-

vanced forces are located where their combat power is needed most. It also describes how naval forces will enhance their effectiveness, employ new warfighting concepts, and promote innovation. By doing so, the Sea Services chart a course that ensures we will carry forward our Nation's interests and continue to serve as a cornerstone of U.S. national security.

Section I

THE GLOBAL SECURITY ENVIRONMENT

aval forces must advance U.S. interests in a global security environment characterized by volatility, instability, complexity, and interdependencies. This environment includes geopolitical changes and growing military challenges that profoundly influence this strategy.

Geopolitical Changes

Spanning from the West Coast of the United States to the eastern coast of Africa and containing eight of the world's ten most populous countries, the Indo-Asia-Pacific region continues to increase in significance for our Nation as well as for our allies and partners. America's economy and security are inextricably linked to the immense volume of trade that flows across the Indian and Pacific Oceans. The economic importance, security interests, and geography of this vast maritime region dictate a growing reliance on naval forces to protect U.S. interests and maintain an enduring commitment to the stability of the region.

Based on shared strategic interests, the United States seeks to strengthen cooperation with long-standing allies in the Indo-Asia-Pacific region—Australia, Japan, New Zealand, the Philippines, the Republic of Korea, and Thailand—and continues to cultivate partnerships with states such as Bangladesh, Brunei, India, Indonesia, Malaysia, Micronesia, Pakistan, Singapore, and Vietnam.

China's naval expansion into the Indian and Pacific Oceans presents both opportunities and challenges. For example, China supports counter piracy operations in the Gulf of Aden, conducts humanitarian assistance and disaster response missions enabled by its hospital ship, and participates in large-scale, multinational naval exercises. As a signatory of the Code for Unplanned Encounters at Sea (CUES), China demonstrates its ability to embrace international norms, institutions, and standards of

behavior commensurate with rising power status. However, China's naval expansion also presents challenges when it employs force or intimidation against other sovereign nations to assert territorial claims. This behavior, along with a lack of transparency in its military intentions, contributes to tension and instability, potentially leading to miscalculation or even escalation. The U.S. Sea Services, through our continued forward presence and constructive interaction with Chinese maritime forces, reduce the potential for misunderstanding, discourage aggression, and preserve our commitment to peace and stability in the region.

Persistent instability and under-governed areas across the Middle East and Africa allow violent extremist organizations and other terrorist organizations to operate. These include the Islamic State of Iraq and the Levant (ISIL), Hezbollah, Hamas, Al Shabab, and Boko Haram, as well as Al Qaeda and its affiliates. Networks such as these destabilize sovereign

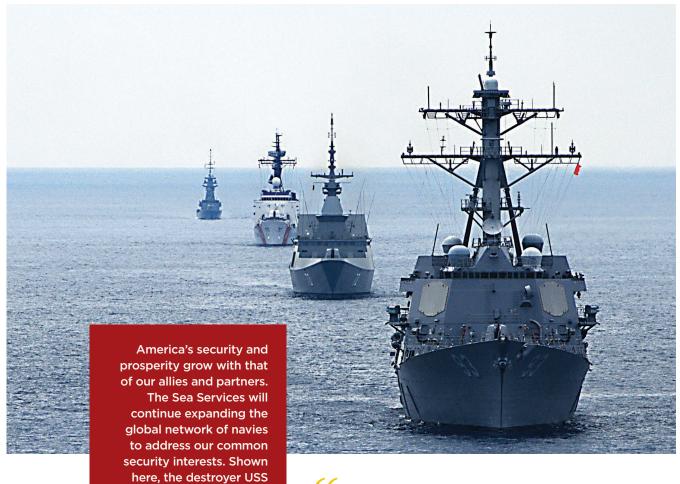
states and influence attacks like the early 2015 shootings in Paris, highlighting the indispensable nature of forward and ready naval forces in the global effort to combat terrorism.

We are stronger when we operate together, engaged with allies and partners.

Under-governed areas ashore create conditions for regional instability ranging from piracy and illicit waterborne trafficking to support for terrorist activity. Through the concerted efforts of U.S. naval forces and our global partners, piracy is currently on the decline off the Horn of Africa, yet it remains a concern around West Africa, especially in the Gulf of Guinea and on the Indian and Pacific Oceans. This regional instability threatens global economic stability in a hyperconnected world and underscores the need for a global network of navies that leverages the best capabilities of participating states.

Across North America and Europe, the North Atlantic Treaty Organization (NATO) remains the most powerful alliance in the world and the centerpiece of transatlantic security. Our mutual efforts to cooperate and integrate with member and partner countries on common maritime challenges such as counter piracy are a model for security cooperation. From developing an ashore ballistic missile defense (BMD) capability in Romania and Poland to operating in Standing NATO Maritime Groups, U.S. naval forces actively participate in NATO missions every day.

Russian military modernization, the illegal seizure of Crimea, and ongoing military aggression in Ukraine underscore the importance of our commitments to European security and stability. NATO members can ensure the continued viability of the alliance by maintaining their commitment to the naval forces that provide security for the European maritime theater.



Chung-Hoon (DDG 93) operates with the Republic

of Singapore frigate RSS

Steadfast (FFG 70), the U.S. Coast Guard cutter

Mellon (WHEC 717) and

the Republic of Singapore corvette RSS Vigilance

(90) during Cooperation

Afloat Readiness and Training (CARAT)

Singapore. CARAT is a

annually to strengthen

force readiness.

series of bilateral exercises in Southeast Asia held

relationships and enhance

The reality of today is that we have to think about the global network of navies. All it takes is a willingness to cooperate—there's no commitment, you don't have to join an alliance, anyone can plug-and-play. There's a mission for everybody whether it's humanitarian assistance and disaster response, counterterrorism, counter transnational organized crime, or counter piracy.

-ADMIRAL GREENERT

Skyrocketing demand for energy and resources, as evidenced by a projected 56 percent increase of global energy consumption by 2040, underscores the criticality of the free flow of commerce through strategic maritime crossroads including the Straits of Hormuz and Malacca, as well as the Panama and Suez Canals. Although the United States is exporting more energy than it imports for the first time in decades, we remain tied to the global economy that depends on the uninterrupted supply of oil and gas from the Middle East and Central Asia. This uninterrupted supply can be placed at risk due to rising political instability and regional conflict. In particular, Iran continues to develop an increasing capability to threaten commerce transiting the Strait of Hormuz. A disruption in energy supply would immediately and significantly affect the global economy. Closer to home, dramatic changes in energy production and transportation, as well

as the completion of the Panama Canal expansion project, will fundamentally alter shipping patterns within the United States and globally.

Transnational criminal organizations (TCO) remain a threat to stability in Africa and the Western Hemisphere, especially in Central America and the southern approaches of the U.S. homeland. Their networks facilitate human trafficking and interrelated flows of weapons, narcotics, and money, all of which could be exploited by terrorists to attack our homeland, allies, and overseas interests.

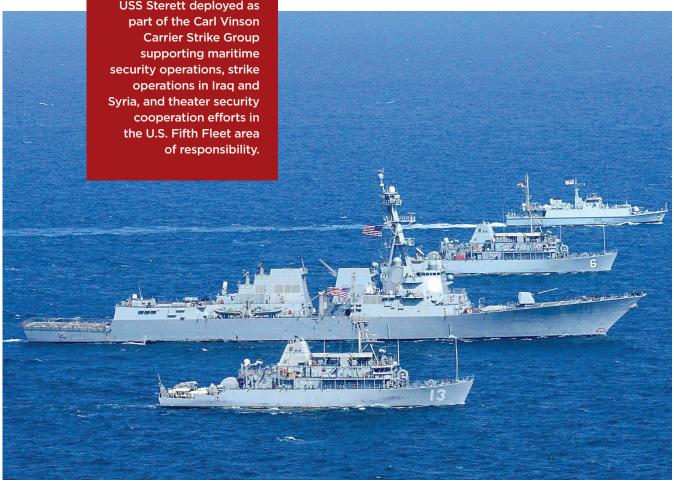
Environmental trends are increasingly shaping the maritime security environment, particularly in the littorals where most of the world's population resides. Climate change-enhanced storms, rising sea levels, and coastal flooding are disproportionately affecting many island nations. This may trigger social instability and more frequent humanitarian assistance and disaster response operations. Rising ocean tem-

peratures present new challenges and opportunities, most notably in the Arctic and Antarctic, where receding ice leads to greater maritime activity. In the coming decades, the Arctic Ocean will be increasingly accessible and more broadly used by those seeking access to the region's abundant resources and trade routes. The predicted rise in maritime activity, including oil and gas exploration, commercial fishing, tourism, and mineral mining, is expected to increase the region's strategic importance over time. Ensuring safe, secure, environmentally responsible activity in the Arctic region will require a broad spectrum of partnerships. Collaborative forums such as the Arctic Council, which the United States

Our Sailors,
Marines, and
Coast Guardsmen
stand ready to
meet the challenges
that face our
Nation.

The Arleigh Burke-class guided-missile destroyer USS Sterett (DDG 104), shown here, participates in the International Mine-Countermeasures Exercise (IMCMEX) with the minecountermeasures ships **USS Devastator (MCM 6)** and USS Dextrous (MCM 13) and the Royal Navy mine-countermeasures ship HMS Penzance (M 106). USS Sterett deployed as part of the Carl Vinson **Carrier Strike Group** supporting maritime security operations, strike

The President directed that we be able to project power despite threats to access. We must leverage our respective Service strengths because we can no longer afford to go down separate investment paths.



A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [7]

will chair from 2015 to 2017, and the Antarctic Treaty System present opportunities for expanded cooperation.

Military Challenges

The Sea Services face a growing range of challenges in gaining access and operating freely in the maritime commons. Most prominently, the proliferation of technologies that allows potential adversaries to threaten naval and air forces at greater ranges complicates our access to some maritime regions (anti-access), as well as our ability to maneuver within those regions (area denial), including the littoral and landward access. These include long-range ballistic and cruise missiles supported by stateof-the-art command and control (C2) and integrated targeting networks; guided rockets, artillery, missiles, and mortars; advanced submarines and "smart" mines; advanced integrated air defense systems; fifth-generation fighter aircraft with enhanced sensors and weapons; and electronic warfare (EW), cyber, and space capabilities. Certainly a distinct challenge during wartime, these military technologies are also a concern in peacetime. For example, the free flow of goods and services can be impeded by state or non-state actors employing clandestine mining of a port or maritime crossroads.

New challenges in cyberspace and the electromagnetic (EM) spectrum mean we can no longer presume to hold the information "high ground." Opponents seek to deny, disrupt, disable, or cause physical damage to our forces and infrastructure with advanced networked information systems. The exploitation of space, cyberspace, and the EM spectrum threatens our global C2. Naval forces must have the resilience to operate under the most hostile cyber and EM conditions.

Weapons of mass destruction (WMD) threaten the United States, our allies, and our partners. North Korea continues to refine nuclear weapon capabilities and deploy long-range ballistic missiles. Likewise, Iran is pursuing nuclear weapons and ballistic missile technologies capable of delivering WMD. Additionally, terrorist networks seek these weapons for use against a wide array of targets. All constitute a direct threat to our homeland as well as to allies and partners.

The complexity of these geopolitical changes and military challenges, particularly during a period of fiscal uncertainty, requires a bold and innovative approach by the Sea Services. This approach demands both a deeper cooperative relationship with our allies and partners and a greater emphasis on Joint Force interdependence, a deliberate and selective reliance and trust of each Service on the capabilities of the others to maximize its own effectiveness.

Section II

FORWARD PRESENCE AND PARTNERSHIP

aval forces operate forward to shape the security environment, signal U.S. resolve, protect U.S. interests, and promote global prosperity by defending freedom of navigation in the maritime commons. By expanding our network of allies and partners and improving our ability to operate alongside them, naval forces: foster the secure environment essential to an open economic system based on the free flow of goods, protect U.S. natural resources, promote stability, deter conflict, and respond to aggression. During crises, forward naval forces provide the President immediate options to defend our interests, de-escalate hostilities, and keep conflict far from our shores. During wartime, forward naval forces fight while preserving freedom of access—and action—for followon forces.

The Navy's current budget submission will provide for more than 300 ships and a forward presence of about 120 ships by 2020, up from an average of 97 in 2014, to be "where it matters, when it matters." This includes forward-based naval forces overseas in places like Guam, Japan, and Spain; forward-operating forces deploying from overseas locations such as Singapore; and rotationally deployed forces from the United States. To provide forward presence more efficiently and effectively, we will adopt the following force employment innovations:

- Increase forward-basing of forces abroad to reduce costly rotations and deployments, while boosting in-theater presence.
- Provide globally distributed and networked expeditionary forces in concert with our allies and partners to increase effective naval presence, strategic agility, and responsiveness.
- Employ modular designed platforms that allow mission modules and payloads to be swapped instead of entire ships, saving time and money. Littoral Combat Ships, which will be redesignated as Frigates (FF) in the future, are an example of this capability.

In early January 2011, the 26th Marine Expeditionary Unit (MEU), embarked aboard the USS Kearsarge Amphibious

Ready Group (ARG) in the Arabian Sea, was directed

to land its ground combat

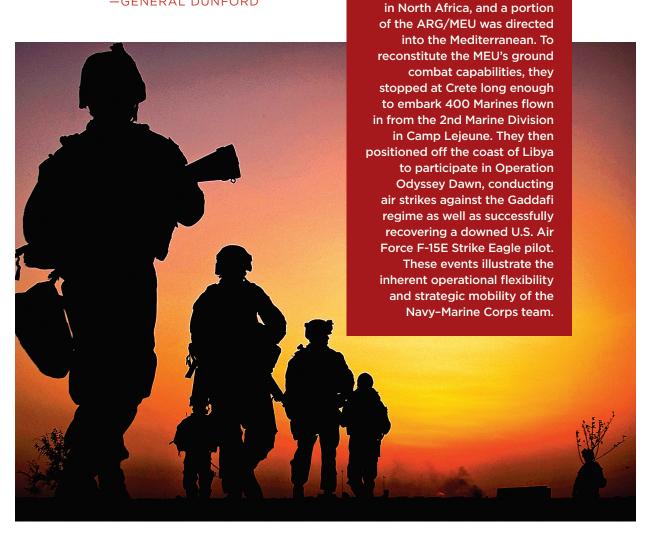
element in Afghanistan to support Operation Enduring

Freedom. Shortly thereafter

the tumultuous events of the "Arab Spring" began to unfold

The security environment changes, the tactics, techniques and procedures change, the threats change, but what won't change is our role as the Nation's crisis response force of choice.

-GENERAL DUNFORD



- Expand the practice of employing adaptive force packages, which tailor naval capabilities to specific regional environments, thereby ensuring that our assets are located where they are most needed. For example, we tailor naval capabilities for participation in UNITAS, an annual multinational maritime exercise with our partners in the U.S. Southern Command area of responsibility, so that more capable Amphibious Ready Groups (ARG) with embarked Marine Expeditionary Units (MEU) and Carrier Strike Groups (CSG) are available for more complex missions in other theaters.
- Take advantage of adaptive force packages to enable persistent engagements that build the capacity of allies and partners to respond to future crises.

In each region we will adhere to a force employment construct that aligns capability and capacity to mission demands.

Indo-Asia-Pacific

With strategic attention shifting to the Indo-Asia-Pacific, we will increase the number of ships, aircraft, and Marine Corps forces postured there. By 2020, approximately 60 percent of Navy ships and aircraft will be based in the region. The Navy will maintain a Carrier Strike Group, Carrier Airwing, and Amphibious Ready Group in Japan; add an attack submarine to those already in Guam; and implement cost-effective approaches such as increasing to four the number of Littoral Combat Ships (LCS) forward-stationed in Singapore to provide an enduring regional presence. The Navy will also provide its most advanced warfighting platforms to the region, including multi-mission ballistic missile defense-capable ships; submarines; and intelligence, surveillance, and reconnaissance (ISR) aircraft. The Zumwalt-class destroyer—our most technologically sophisticated surface combatant—will deploy to the area, as will the F-35C Lightning II and the MQ-4C Triton high-endurance, unmanned aerial vehicle.

The Marine Corps will maintain a Marine Expeditionary Force (MEF) in the region, deploy a Marine Rotational Force to Australia, and make use of other land- and sea-based forces to provide conventional deterrence, conduct security cooperation, respond to crises and conflicts, as well as provide expeditionary support for operational plans. New assets, such as the MV-22 Osprey, CH-53K King Stallion, F-35B Lightning II, and Amphibious Combat Vehicle, will give these forces the increased range and improved capabilities required in this vast region. The Navy and Marine Corps will employ these forces from multi-purpose amphibious ships,

The amphibious capabilities provided by the Navy-Marine Corps teamespecially those that are forward postured—have long played a key role in enabling overseas access for missions across the range of military operations. For example, following the events of September 11, 2001, two Amphibious Ready Groups (ARG) with embarked Marine Expeditionary Units (MEU) were diverted to the North Arabian Sea from their steady-state activities elsewhere. With the addition of a fly-in command element, they formed Task Force 58 within the U.S. Fifth Fleet and conducted an amphibious assault 350 miles inland to seize a lodgment for the introduction of additional joint Corps team once again aggregated two ARG/MEUs in that region, but this time for the purpose of conducting humanitarian assistance operations in the wake of flooding caused by

Those same forces that conduct day-to-day forward presence and crisis response can quickly and seamlessly shift to provide assured access for Joint Forces.

-GENERAL DUNFORD



[12] Forward + Engaged + Ready

reconfigurable platforms, and expeditionary locations ashore throughout the Indo-Asia-Pacific. As an example, Marines currently deploy aboard Military Sealift Command ships such as the Dry Cargo/Ammunition (T-AKE) ship and Joint High Speed Vessel (JHSV) to train with partner nation security forces. The Marine Corps has recently forward-based MV-22 squadrons in the Western Pacific, and will deploy the first permanently forward-based fifth-generation strike aircraft to Japan.

The Coast Guard will rotationally deploy National Security Cutters and deployable specialized forces with the Navy and Marine Corps to safeguard U.S. territorial waters and the Exclusive Economic Zone (EEZ). Additionally, the Coast Guard will work with regional partners and navies using joint and combined patrols, ship-rider exchanges, and multinational exercises to build proficient maritime governance forces, enhance cooperation in maritime safety and security, and reduce illegal, unreported, and unregulated fishing. These multinational efforts are furthered through the Oceania Maritime Security Initiative and participation in the North Pacific Coast Guard Forum.

Our expanded forward naval presence in the Indo-Asia-Pacific will enhance our warfighting advantages in-theater, while providing a foundation for strengthening alliances through improved interoperability, more integrated operations, and increasingly complex exercises and training. It will also enhance partnerships through expanded maritime security operations, shared maritime domain awareness, and longer multilateral engagements. Our objective is to build and sustain regional capacities to deal with local maritime security challenges. By deepening security cooperation and multilateral mechanisms among the region's states—especially members of the Association of Southeast Asian Nations (ASEAN)—U.S. naval forces will contribute to the long-term security of the global economic system.

Middle East

The Middle East remains strategically vital for the United States and our allies. We will increase presence in the region from 30 ships today to about 40 in 2020 to maintain credible combat power in the Middle East to deter conflict, reassure allies and partners, and respond to crises.

The Navy and Marine Corps will continue the rotational deployment of Carrier Strike Groups with embarked airwings and Amphibious Ready Groups with embarked Marine Expeditionary Units (MEU) to the region. In addition, the Marine Corps will maintain a continuous presence in the Middle East, including a General Officer-led Marine Air-Ground Task

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [13]

Force (MAGTF) command element and a Special Purpose Marine Air-Ground Task Force (SPMAGTF) equipped with MV-22 and KC-130 Hercules aircraft to maximize the operating radius for security cooperation and crisis response. The Navy and Marine Corps will maintain a headquarters facility in the Arabian Gulf, continue the deployment of ships there, and use new multi-mission vessels such as the Littoral Combat Ship, Joint High Speed Vessel, and Afloat Forward Staging Base (AFSB) to support security cooperation, counterterrorism, expeditionary operations, minesweeping, and Special Operations Forces.

The Coast Guard will deploy personnel to build partner nation capacity for maritime governance and simultaneously conduct maritime security, infrastructure protection, and Port State Control activities. Coast Guard patrol boats and deployable specialized forces on Navy and coalition ships will counter illicit maritime activity.

Our sustained forward naval presence in the Middle East will protect the homeland and promote regional stability by thwarting terrorist networks that threaten local and regional governance. It will also combat the proliferation of weapons of mass destruction and deter potential adversaries from threatening the flow of energy through the Strait of Hormuz and the Suez Canal. We will enhance the capability and capacity of key partnerships, particularly the Gulf Cooperation Council, to promote interoperability with member states and other navies throughout the region.

Europe

NATO and our European allies and partners remain vital to U.S. security interests within the region and around the world. Our interoperability with allies remains a priority, as demonstrated by the nine-month cooperative deployment of a Carrier Strike Group with British Royal Navy staff embarked and the combined Carrier Strike Group operations between the United States and France. Our naval installations in Europe are fundamental to sustaining naval forces operating in this and adjacent areas. Naval forces operating in Europe are ideally positioned to conduct prompt, flexible seabased operations in Europe, Africa, the Levant, and Southwest Asia.

As we rebalance to the Indo-Asia-Pacific, we continue to recognize the enduring strategic significance and contributions of Europe and NATO in addressing common maritime security challenges such as Operation Ocean Shield, which has reduced piracy in the waters around the Horn of Africa. Underscoring our commitment to NATO, the Navy will continue supporting the Standing NATO Maritime and Mine Countermeasure Groups and provide forces in Europe that make unique contributions to the alliance,

People ask why the Coast Guard partners with foreign governments to enforce fisheries laws far from our own Nation's coast. The answer is that the economic security of many of those partner nations is heavily reliant on delicate fish stocks, underpinning regional stability and security.

Illegal, unreported, and unregulated fishing costs the global economy between \$10 and \$20 billion annually. The United States actively develops and implements maritime governance measures that are adopted by international fisheries management organizations. Our efforts to enhance international capacity to preserve sustainable fish stocks and other living marine resources promote global economic security, build avenues for cooperation on a wide variety of issues, and reduce international tension. Here, U.S. Coast Guard personnel conduct a fishing vessel combined training and support to maritime forces around the world.



A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [15]

such as Aegis ballistic missile defense (BMD) ashore and afloat, protecting our allies and partners from ballistic missile threats. This includes basing four multi-mission, BMD-capable destroyers in Spain by the end of 2015. These ships also provide forward presence in the Mediterranean for security cooperation, maritime security, and crisis response missions. Continued maritime integration with NATO will be necessary to ensure long-term regional security and stability.

To augment episodic Amphibious Ready Group/Marine Expeditionary Unit (ARG/MEU) presence in the region, the Marine Corps will provide a land- or sea-based Special Purpose Marine Air-Ground Task Force (SPMAGTF), trained for employment singly or as part of a larger, composited force. One such SPMAGTF was stood up in 2013 to support missions in Europe and Africa. The Marine Corps will continue to employ such task-organized forces for security cooperation while maintaining readiness for crisis response.

Africa

We will provide naval presence in Africa with adaptive force packages such as the Joint High Speed Vessel or Afloat Forward Staging Base with embarked Sailors, Marines, and Coast Guardsmen. Construction Battalions (Seabees), Explosive Ordnance Disposal units, Navy SEALs and other Naval Special Operations Forces, as well as Coast Guardsmen and Marines, will continue working alongside partner security forces to combat terrorism, illicit trafficking, and illegal exploitation of natural resources through initiatives such as the African Maritime Law Enforcement Partnership and the Africa Partnership Station. West African nations rely heavily on maritime forces to combat illicit trafficking, which has links to terrorist enterprises. For example, the Sea Services will continue working with partner nations in the Gulf of Guinea to find a long-term solution to maritime security challenges through information sharing, exercises, and joint patrols. The Navy will maintain an expeditionary base on the continent to support counterterrorism; maritime security; and intelligence, surveillance, and reconnaissance operations. Forward deployed and rapidly deploying forces, such as ARG/MEUs, SPMAGTFs, and Marine Expeditionary Brigades (MEB) will engage in exercises and training to strengthen partnerships, remain prepared to support crisis response, and protect U.S. citizens and interests in the region.

We will continue working alongside European and African partners and regional organizations to strengthen African capabilities to respond to crises and contribute to stability in their respective states.



The Coast Guard has more than 60 bilateral agreements with foreign governments that enable us to project maritime governance, rule of law, and global leadership through combined operations with host nations.

-ADMIRAL ZUKUNFT

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [17]

reduce illicit drug trafficking

Western Hemisphere and

European nations helped seize more than 131 metric

tons of cocaine valued at

approximately \$3 billion. These Coast Guardsmen in

illegal drugs.

Miami Beach unload millions of dollars' worth of seized

throughout Central and South America. In 2013, fourteen

Western Hemisphere

We will strengthen partnerships and capacity in the Western Hemisphere to protect the homeland and to counter illicit trafficking and transnational criminal organizations. Coast Guard recapitalization efforts will produce a fleet of highly capable, multi-mission ships and aircraft, including the Offshore Patrol Cutter and the C-27J Spartan maritime patrol aircraft to counter threats, particularly in the Caribbean Sea, Gulf of Mexico, and eastern Pacific Ocean. The Navy will maintain its base at Guantanamo Bay, Cuba, to support joint and combined military operations and to enhance interagency efforts to develop regional security and cooperation. The Marine Corps will employ task forces or SPMAGTFs to support security cooperation activities that increase interoperability with regional partners and strengthen their capacity to interdict transnational criminal organizations. We will employ amphibious ships and other platforms, including Littoral Combat Ships, Joint High Speed Vessels, Afloat Forward Staging Bases, hospital ships, other Military Sealift Command ships, and Coast Guard platforms, to conduct humanitarian assistance and disaster response missions. We will also employ maritime patrol aircraft such as the P-8A Poseidon and unmanned aerial vehicles. Other ships and aircraft will provide periodic presence for recurring military-to-military engagements, theater security cooperation exercises, and other missions.

Arctic and Antarctic

Consistent with the predicted growth in maritime activity, the Sea Services will assess Arctic access and presence needs, improve maritime domain awareness, and pursue cooperation with Arctic partners to enhance the maritime safety and security of the region. This will require us to further develop our ability to operate in the Arctic, including in ice-covered and ice-obstructed waters. The Coast Guard will apply the multi-mission capabilities of the National Security Cutter to provide a tailored seasonal presence for command and control and aerial surveillance, and will begin the design process for a new, heavy icebreaking capability to support operations in both the Arctic and Antarctic. The Coast Guard will also pursue the formation of a maritime assistance, coordination, and operations group, open to members of the eight Arctic Council nations. The purpose of this group will be coordination of multinational search and rescue operations, training exercises, maritime traffic management, disaster response, and information sharing.

Section III

SEAPOWER IN SUPPORT OF NATIONAL SECURITY

he Sea Services operate in the world's oceans to protect the homeland, build security globally, project power, and win decisively. This ability to maneuver globally on the seas and to prevent others from using the sea against our interests constitutes a strategic advantage for the United States. Carrier Strike Groups with embarked airwings, as the naval forces' preeminent strike capability, and amphibious task forces with embarked Marines, along with surface combatants, submarines, and Coast Guard cutters, provide flexible and sustainable options from the sea to the littoral in support of the following naval missions: defend the homeland, deter conflict, respond to crises, defeat aggression, protect the maritime commons, strengthen partnerships, and provide humanitarian assistance and disaster response.

We organize, train, and equip naval forces to accomplish these missions through the five essential functions: all domain access, deterrence, sea control, power projection, and maritime security. We employ these functions in a combined-arms approach as the summation of U.S. seapower, providing a unique comparative advantage for the Joint Force and the Nation.

All Domain Access

All domain access is the ability to project military force in contested areas with sufficient freedom of action to operate effectively. In today's security environment, that access is increasingly contested by state and non-state actors that can hold even our most advanced forces and weapon systems at risk with their own sophisticated anti-access/area denial strategies.

Employed in coordination with the Navy-Marine Corps team's sea control and power projection capabilities, all domain access allows Joint Force Maritime Component Commanders to provide cross-domain capability to the Joint Force through the following elements:



We must be able to achieve access in any domain. That means altering how we plan and coordinate actions in the air, sea, land, space, and cyberspace domains, identifying and leveraging the right capability mix to assure access and freedom of action.

-ADMIRAL GREENERT

Control-Counter Air (NIFC-CA) program for defense

integrates reconnaissance,

fighters, and shipboard fire control systems to defeat

threats at long range. The

E-2D Hawkeye, shown here landing on the flight

deck of the USS Dwight

D. Eisenhower (CVN 69), integrates these elements

of NIFC-CA.

against enemy aircraft and missiles. This program

- Battlespace awareness, which provides: persistent surveillance of the maritime domain, including the landward portion of the littoral, and the information environment; penetrating knowledge of the capabilities and intent of our adversaries; an understanding of when, where, and how our adversaries operate; and a comprehensive grasp of the environment in which our forces will operate.
- Assured command and control, which provides commanders the ability to maintain robust, resilient, and agile networks for the command and control of forces in contested environments.
- Cyberspace operations, including both defensive and offensive measures, which preserve the ability to utilize friendly cyberspace capabilities; protect data, networks, net-centric capabilities, and other designated systems; and project power by the application of force in or through cyberspace.
- Electromagnetic Maneuver Warfare (EMW), a relatively new concept, which blends fleet operations in space, cyberspace, and the electromagnetic spectrum with advanced non-kinetic capabilities to create warfighting advantages.
- Integrated fires, which provide an expanded range of kinetic and non-kinetic options for the commander to fully exploit and, when necessary, attack adversary capabilities and vulnerabilities.

Cross-domain synergy is achieved when these elements are synchronized, providing Joint Force commanders a range of options in all domains to defeat anti-access/area denial strategies. These options include greater emphasis on force-wide, coordinated non-kinetic capability and counter-targeting techniques as opposed to engaging each threat with increasingly expensive kinetic weapons. In short, we must become more comprehensive in our offensive capability to defeat the system rather than countering individual weapons. As an example, we may more effectively defeat anti-ship ballistic and cruise missile threats by making use of superior battlespace awareness to employ cyber and EMW capabilities in an integrated fires approach that defeats the threat before it has even been launched.

Assuring access in all domains begins in peacetime through routine regional operations with the naval and maritime forces of our allies and partners. These efforts enhance relationships, build capability and capacity, and lead to access in the maritime environment. When naval forces set the conditions for access in peacetime, we enhance our interoperability with allies and partners to more readily achieve all domain access during conflict.

Naval forces achieve all domain access as part of joint operations, improving relationships and deterrence in peacetime and enabling success against our enemies in wartime. This function supports all naval missions.

Deterrence

We achieve deterrence by convincing potential enemies that they cannot win or that the cost of aggression would be unacceptable.

Strategic nuclear deterrence is guaranteed by Navy ballistic missile submarines (SSBN) that provide the United States with an assured, precise, nuclear second-strike capability. Always at sea, SSBNs patrol undetected, remaining in continuous communication and capable of immediate response. As the most secure and survivable element of our Nation's nuclear triad, it is imperative that our sea-based nuclear forces be maintained at peak readiness and fully resourced.

Conventional deterrence is provided by naval forces through the over-whelming combat power of our Carrier Strike Groups with embarked airwings; surface and subsurface combatants with precision attack weapons; and the scalable, deployable, expeditionary combat power of Marine Expeditionary Forces (MEF), Marine Expeditionary Brigades, and Marine Expeditionary Units employed from various combinations of amphibious ships, maritime prepositioning, and forward bases. The Coast Guard maintains a continuous presence in our ports, internal waterways, along our coasts, and offshore, providing an additional layer of defense against maritime threats. Together with multi-mission ballistic missile defense-capable ships, these naval forces offer a wide range of credible deterrent options that are agile, flexible, and scalable. They are also positioned to rapidly respond to defend the homeland and our allies should deterrence fail.

This function supports the naval missions of defending the homeland, deterring conflict, and strengthening partnerships.

Sea Control

Sea control allows naval forces to establish local maritime superiority while denying an adversary that same ability. Forward naval forces employ a full spectrum of layered capabilities for the destruction of enemy naval forces, suppression of enemy sea commerce, and protection of vital sea lanes, including ports of embarkation and debarkation, which enables strategic sealift and facilitates the arrival of follow-on forces. The essential elements of sea control are surface warfare, undersea warfare, strike warfare, mine warfare, air and missile defense, maritime domain awareness, and intelligence, surveillance and reconnaissance.



power projection and to deter and defeat aggression. Helicopters and fixed-wing aircraft operating from aircraft carriers, amphibious ships, and shore stations, and helicopters operating from cruisers and destroyers—complemented by advanced unmanned aerial vehicles—have played critical roles in recent campaigns and remain ready to fulfill any assigned mission. The F/A-18E Super Hornet shown here takes off from the aircraft carrier USS John C. Stennis (CVN 74) in the Pacific Ocean.

The centerpieces of naval capability remain the Carrier Strike Group and Amphibious Ready Group . . . These ships, aircraft, Sailors, and Marines have deterred and defeated aggression since World War II and will continue to do so well into the future.

-ADMIRAL GREENERT

Establishing sea control may require projecting power ashore to neutralize threats or control terrain in the landward portion of the littorals. Similarly, projecting and sustaining power ashore requires establishing sea control in the adjoining seas and airspace. Because of this, sea control and power projection are mutually reinforcing. This function supports the naval missions of defending the homeland, defeating aggression, and strengthening partnerships.

Power Projection

In a broad sense, power projection is the ability of a nation to apply all or some of its elements of national power—diplomatic, informational, military, or economic—to respond to crises, contribute to deterrence, and enhance regional stability.

Naval power projection includes conventional strikes against targets ashore, integrated kinetic strikes and non-kinetic fires against enemy forces, advance force operations, raids, and all forms of amphibious operations, from ship-to-objective maneuver and sea-based fire support to forces ashore to missions conducted by Naval Special Warfare and Special Operations Forces. Navy strike forces led by aircraft carriers, surface combatants, and other ships, as well as submarines provide long-range, sea-based strike capabilities. Naval expeditionary forces can project power deep inland to disrupt the enemy, destroy enemy forces, and seize terrain in support of a joint campaign.

Power projection also depends upon our ability to sea-base capabilities and leverage Military Sealift Command's strategic sealift and logistics support, as well as Joint Force aerial refueling, and the global strategic laydown of our bases and facilities that safeguard, deliver, and sustain our forces. Naval Logistics Integration is a key enabler of our ability to sustain forces operating from the sea. Historically, the capability to sustain distant operations has served as a cornerstone of naval power projection.

Naval power projection capabilities also facilitate other elements of "smart power" missions in the form of humanitarian assistance and disaster response, as demonstrated in the 2010 earthquake in Haiti, the 2011 tsunami in Japan, and the 2013 typhoon in the Philippines. Positioned to respond rapidly to disasters in key regions, forward naval forces working with allies and partners are ready to save lives, provide immediate relief, and set the conditions for effective civilian response without relying on damaged or inaccessible ports or airfields ashore. This function supports the naval missions of defending the homeland, responding to crises,

multinational forums and institutions, such as the **International Maritime** Organization, leads to improvements in global standards for commercial vessel and port security, safety at sea, anti-piracy, and protection of the maritime environment and resources. Here, U.S. Coast **Guard and China Fisheries** Law Enforcement Command personnel embark a stateless vessel suspected of high seas drift net fishing. This illegal and universally condemned practice poses a significant threat to ocean ecosystems and the food and economic security of nations that rely on fisheries resources.

U.S. participation in

The Coast Guard's vast array of authorities is unique—we are a regulatory agency, a federal law enforcement organization, and one of the Nation's five armed services. We sustain mission excellence by combining our authorities and competencies with the significant capacity of our sister services.



A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [25]

deterring conflict, defeating aggression, and providing humanitarian assistance and disaster response.

Maritime Security

Maritime security protects U.S. sovereignty and maritime resources, supports free and open seaborne commerce, and counters weapons proliferation, terrorism, transnational crime, piracy, illegal exploitation of the maritime environment, and unlawful seaborne immigration.

Naval forces provide maritime security in the maritime commons and the seaborne approaches to our Nation. The United States manages critical mineral and marine resources in our 4.5 million square mile Exclusive Economic Zone (EEZ) and maintains internationally recognized search and rescue responsibility in the larger Western Hemisphere Transit Zone. Operating in and beyond our EEZ, Coast Guard and Navy ships and aircraft are the forward edge of the Nation's layered defense, developing maritime domain awareness, establishing effective maritime governance, and protecting the homeland.

Maritime security supports U.S. efforts to uphold the laws, rules, and norms that govern standards of behavior in the maritime commons for transit, trade, and the pursuit of natural resources. Particularly important is cooperation with other coast guards to address both military and non-military state-sponsored challenges to sovereign rights.

We conduct maritime security operations by locating and monitoring vessels suspected of carrying illicit cargo or persons. If required, we intercept and board these vessels in support of U.S. law or international sanctions. Operating with the Coast Guard's unique legal authorities, naval forces combat the illegal drug trade, human trafficking, and the unlawful exploitation of natural resources, particularly in the Western Hemisphere. Maritime security operations further support the broad maritime governance activities of the United States. These include assuring access to ice-covered and ice-obstructed waters in the Arctic and Antarctic.

Because all nations share in the collective benefits of maritime security, it is a promising area for expanded cooperation with our allies and partners. Through multinational exercises and training, we will conduct maritime security force assistance to combat transnational organized crime and protect fisheries and maritime commerce. This function supports the naval missions of defending the homeland, protecting maritime commons, and strengthening partnerships.

Section IV

FORCE DESIGN: BUILDING THE FUTURE FORCE

n this time of fiscal austerity, our force is sized to support defeating one regional adversary in a large, multi-phased campaign, while denying the objectives of, or imposing unacceptable costs on, another aggressor in a different region. This force-sizing construct also ensures our capability and capacity to support global presence requirements. To accomplish this, the Navy and Marine Corps must maintain a fleet of more than 300 ships, including 11 aircraft carriers, 14 ballistic missile submarines (replaced by 12 Ohio Replacement Program SSBN(X)), and 33 amphibious ships, while the Coast Guard must maintain a fleet of 91 National Security, Offshore Patrol, and Fast Response Cutters.

A smaller force, driven by additional budget cuts or sequestration, would require us to make hard choices. We would be forced to execute this maritime strategy at increased levels of risk for some missions and functions, decrease forward presence, and reduce our footprint in some geographic regions. Such cuts would also limit our warfighting advantages. Specifically, in the event of a return to sequestration levels of funding, Navy surge-ready Carrier Strike Groups and Amphibious Ready Groups available for crises and contingencies would be insufficient to meet requirements, and the Navy's ability to maintain appropriate forward presence would be placed at risk.

In building the future force, we will make institutional changes and take prudent risks as we balance investments in readiness, capability, and capacity. We will maintain our commitment to our Service members, employ new operational concepts, and develop innovative capabilities. As we develop this future force, we will value energy as a critical resource across all naval missions to enhance our operational reach, energy security, and energy independence. The following implementation principles, along with Service-specific documents such as the Marine Corps' Expeditionary Force 21 and Marine Expeditionary Brigade Concept of Operations and classified supplements, will guide our efforts to ensure we remain a capable and combat-ready naval force.

Flexible, Agile, and Ready Forces

In designing our future force, we will:

- Preserve an appropriate inventory of surge-ready naval forces that are combat-ready and prepared to rapidly respond to crises, major contingencies, and threats against the homeland, while relying on forward deployed naval forces as our shaping and response force. Maintaining this balance allows us to respond to today's crises while remaining ready for tomorrow's conflicts.
- Develop a motivated and relevant future force of Sailors, Marines, and Coast Guardsmen who are diverse in experience, background, and ideas; personally and professionally ready; and proficient in the operation of their weapons and systems.
- Develop a balanced force of submarines, aircraft carriers, amphibious ships, and surface combatants designed for combat. These ships must be complemented by reconfigurable platforms such as the Joint High Speed Vessel, National Security Cutter, and auxiliaries including Large, Medium-Speed Roll-on/Roll-off (LMSR) ships, Dry Cargo/Ammunition (T-AKE) ships, Mobile Landing Platforms (MLP), and the Afloat Forward Staging Base (AFSB).
- Improve Joint Force interdependence through initiatives that eliminate gaps and seams, reduce unnecessary redundancy, and increase synergy with the Air Force and Army in developing concepts of operation for countering anti-access/area denial threats. We cannot go it alone. For example, naval forces depend heavily on the Air Force's aerial refueling and global intelligence, surveillance, and reconnaissance (ISR) capabilities. Likewise, the Army's globally deployable Terminal High Altitude Area Defense (THAAD) and Patriot missile batteries and the Navy's Integrated Air and Missile Defense (IAMD) systems complement each other with their robust capabilities. The employment of Special Operations Forces from Navy ships is another example of Joint Force interdependence.
- Implement a predictable naval force employment model—the Navy's Optimized Fleet Response Plan (O-FRP)—which structures pre-deployment maintenance, training, and inspection schedules to improve operational readiness and availability in order to meet Global Force Management (GFM) requirements.

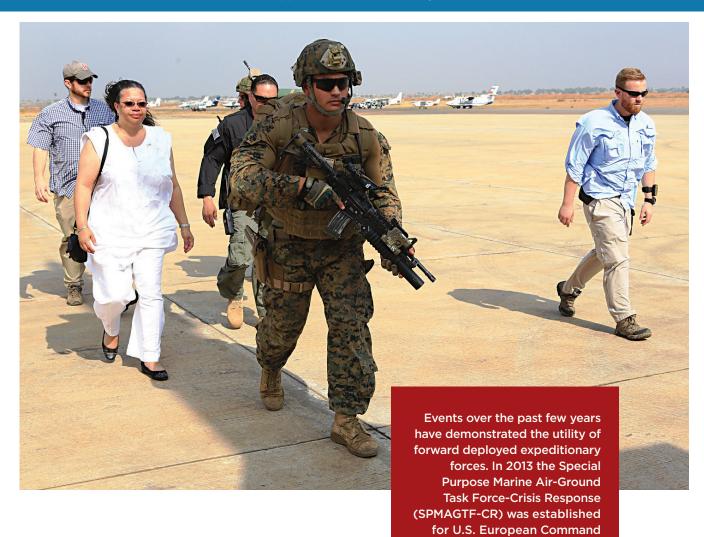
- Prioritize affordability in every aspect of our acquisition process by controlling costs throughout the system lifecycle. For example, we will expand Open Systems Architecture initiatives to improve the use of intellectual property and increase competition. This will drive down total ownership costs, improve warfighting capability, and lead to sustainable future programs.
- Collaborate with our industry partners to design interoperable and adaptable platforms that can rapidly plug in new sensor, information, logistic, and weapon payloads. Modularity will define our future force.
- Plan and balance acquisitions and maintenance strategies to ensure the viability of the industrial base.
- Improve operational energy capabilities that enhance our reach and energy security. These measures will include the use of Marine Corps initiatives to improve deployed energy consumption, the development of bio-fuels, and other programs that emphasize energy efficiency.

People

To ensure that our active and reserve Sailors, Marines, and Coast Guardsmen—as well as civilians—remain our greatest asymmetric advantage, we will:

- Sustain support for the needs of our families and our wounded Sailors, Marines, and Coast Guardsmen to ensure that we honor the Nation's sacred trust with those who serve and those who pay the heaviest price.
- Enhance the safety, security, and quality of professional and personal life for our Service members, civilians, and families. We will continue to hold commands accountable for establishing an environment that allows our people and their loved ones to thrive amidst the extraordinary commitments and sacrifices that they collectively undertake.
- Further our warfighting advantage by developing leaders who personify their moral obligation to the naval profession by upholding core values and ethos, who fulfill these obligations as leaders of character and integrity, and who confidently exercise their authority and responsibility with a strong and abiding sense of accountability for their actions.

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [29]



and U.S. Africa Command to

increase capacity for security

of ethnic violence in South

that country. A U.S. Marine is shown above leading U.S. Ambassador Susan D. Page to a waiting aircraft. In the future, we intend to sea-base the SPMAGTF-CR to further its operational flexibility and reach.

cooperation and crisis response. On January 3, 2014, as a result

Sudan, elements of SPMAGTF-CR conducted a non-combatant

evacuation of U.S. citizens from

In an era of tight budgets and uncertainty, we believe we're a reasonably priced insurance policy.

And history has shown the cost of not having that insurance policy.

-GENERAL DUNFORD

[30] Forward + Engaged + Ready

- Modernize the Navy's total force personnel system with a holistic strategy that evolves the All-Volunteer Force, creating more agile and family-friendly career paths in line with 21st Century social and economic realities. We will also develop a market of choice and challenge for high performers and remove the long-standing "up or out" system, which fails to maximize our investment in our people.
- Create a true learning competency that unites our acquisition, requirements, and programming efforts to deliver the latest in technology and design, resulting in realistic simulation and live, virtual, and constructive scenarios before our people deploy. Once deployed, we will further hone their skills through robust exercises with allies and partners in challenging operating environments.
- Optimize the total force mix by strategically employing the Selected Reserve, managing differentiated talents to create more adaptive and agile warriors, and expanding Service opportunities to a wider population in support of peacetime operations and to provide essential surge capacity.
- Cultivate strategic thought and intellectual capital through individual Service initiatives such as the reinvigoration of the Navy and Marine Corps Naval Board, the establishment of the Navy Strategic Enterprise to create synergy among the naval staffs and other strategically minded institutions, and the development of a cadre of strategic thinkers.
- Expand and empower the Foreign Area Officer (FAO) community to ensure they remain ready to build and strengthen international partnerships and serve as key enablers for joint, maritime, and coalition operations.

Concepts

We will develop, refine, and validate new warfighting concepts through Service-level war games and exercises, joint concept technology demonstrations, and full-scale joint and coalition exercises. By harnessing the teamwork, talent, education, and imagination of our diverse naval force and our allies and partners, we will:

Develop regional and global power projection capabilities, in support of the Joint Operational Access Concept, that provide a full range of options describing how the future Joint Force will conduct operations to gain and maintain access and freedom of action in the global commons.

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [31]

- Advance the global network of navies concept by deepening security cooperation with allies and partners. This involves:
 - Expanding the cooperative deployment construct that integrates allied and partner forces into Carrier Strike Group and Amphibious Ready Group pre-deployment training, readiness exercises, and deployments.
 - Enhancing warfighting effectiveness between allies and partners. We will accomplish this through Service, joint, allied, and combined exercises of increasing complexity and comprehensiveness, including those that improve interoperability in amphibious operations, particularly in the Indo-Asia-Pacific and Europe. Additionally, we will increase personnel exchanges and intelligence sharing, as well as create a common operating picture on both classified and unclassified networks.
 - Pursuing regional and international forums to discuss overlapping sovereignty and economic, security, defense, and law enforcement concerns. This will foster multilateral cooperation on combined operations, information exchange, combating illegal trafficking, emergency response, maritime security, and fisheries protection.
- Re-align Navy training, tactics development, operational support, and assessments with our warfare mission areas to mirror how we currently organize to fight. In each warfare community, the Navy will establish a warfare development center responsible for conducting tactical through advanced theater-level training.
- Conduct sea control and power projection in a more distributed fashion in littoral environments. This includes employing forward deployed and surge expeditionary forces that are task-organized into a cohesive amphibious force in order to provide scalable options to defeat land-based threats, deny enemy use of key terrain, or establish expeditionary advance bases and oceanic outposts as described in *Expeditionary Force 21*. We will accomplish this using reconfigurable platforms, more sophisticated sea-basing concepts, and technologies that enhance battlespace awareness down to the expeditionary squad level.
- Develop tactics, techniques, and procedures (TTP) that target adversary vulnerabilities. We will explore the right balance between traditional kinetic strikes and non-kinetic actions. This will

- conserve capacity of limited resources in the magazine in favor of more efficient and less costly means, where available, to disrupt an adversary's kill chain.
- Develop and evolve our electromagnetic maneuver warfare, space, and cyber concepts of operation to achieve desired effects through blended kinetic and non-kinetic means. The electromagnetic-cyber environment is now so fundamental to military operations and so critical to our national interests that we must treat it as a warfighting domain on par with sea, air, land, and space.
- Evolve our counter-small boat swarm TTPs to include the use of innovative technologies such as lasers, advanced guns, and remotely piloted "smart" vehicles to counter this threat.

Capabilities

Continuous innovation informs how we fight, and it drives how we invest. We will focus our resources on capabilities that allow us to retain and improve our warfighting advantages. When appropriate, we will prioritize capability over capacity and emphasize modularity and open architecture in current and future platform design.

ALL DOMAIN ACCESS

In response to rising anti-access/area denial challenges, we will:

- Prioritize capabilities that gain and maintain access, when and where needed, across all warfighting domains.
- Develop a force capable of effective, autonomous operations in an information-denied or -degraded environment.
- Extend our cyber security and resiliency by addressing the acquisition and modernization of our platforms, systems, and information technology networks; by instituting quality assurance programs to protect critical warfighting capabilities; and by establishing common technical standards, certifications, and authorities to sustain the readiness of our cyber programs and systems.
- Develop networked, integrated, and multi-dimensional capabilities to defeat adversary air and missile threats. We will evolve key components of our fire control networks, advanced electronic

A COOPERATIVE STRATEGY FOR 21ST CENTURY SEAPOWER, MARCH 2015 [33]

warfare applications, and next-generation, over-the-horizon, surface-to-air missiles that expand the range and capacity of our integrated air and missile defense capability.

- Optimize the use of our platform payload volume by integrating kinetic and non-kinetic warfighting capabilities in cyberspace and the electromagnetic spectrum. This will include cutting-edge directed energy weapons and targeted cyber and EMW operations that exploit, disrupt, disable, or destroy adversary networks, sensors, and weapon systems.
- Enhance the capability of Marine Air-Ground Task Forces (MAGTF) to command and control forces responding to crises or contingencies and executing forcible entry operations.
- Organize and equip Marine Expeditionary Brigades to exercise command and control of joint and multinational task forces, enable the Marine Expeditionary Force for larger operations, and integrate with the Navy for amphibious operations. This includes improving the ability to rapidly deploy and combine forces into a cohesive and agile composite force scaled to the mission.
- Enhance the ability to command and control operations to project power from the sea in contested environments, including interoperability with partner nations.
- Integrate fifth-generation aviation capability into the MAGTF and forward deploy this capability in sea- and shore-based roles, including from expeditionary advance bases and oceanic outposts.

DETERRENCE

As long as nuclear weapons and other weapons of mass destruction threaten our Nation and our allies, we will provide a safe, secure, and credible sea-based strategic deterrent. The Navy's top priority is to ensure that the most survivable leg of our Nation's strategic nuclear triad remains fully resourced and ready through the existing SSBN force and continued development of the Ohio Replacement Program. This includes the national command and control system, underwater platform, launch system, and ballistic missile capability that will collectively provide better survivability and increased lethality.

To enhance conventional deterrence options from the sea, we will field our next-generation aircraft carriers, ships, submarines, and aircraft capable of long-range precision strike, as well as improve the operational access of our future expeditionary forces.

SEA CONTROL AND POWER PROJECTION

To sustain our ability to defeat aggression, respond to crises, and strengthen partnerships, we will:

- Advance naval capabilities that maintain our undersea dominance, especially in contested environments. We will continue to improve fixed and mobile undersea sensors, while also deploying advanced multi-functional sensors and protection systems on ships and aircraft, providing a high-altitude anti-submarine warfare capability, and developing unmanned undersea vehicles.
- Continue developing and integrating unmanned systems that improve our ability to operate beyond the limits of human endurance and in highly contested, high-risk environments. This includes air, surface, undersea, and land-based applications.
- Prioritize development of long-range stand-off weapons to complement stealth aircraft capabilities. This includes the ability to engage targets at extended ranges and in contested environments to provide a credible air-, surface-, and submarinelaunched strike.
- Improve our capability to seize, establish, sustain, and protect austere expeditionary bases that enhance naval operations in anti-access/area denial threat environments.
- Develop the capability to employ connectors, including combinations of landing craft, amphibious vehicles, small craft, and multi-mission aviation platforms in the littoral, with reduced radar signature, greater stand-off ranges, and increased speed and capacity. This will involve continued research and development of high water speed options for amphibious assault.
- Employ more efficient at-sea power generation systems and emerging technologies in miniaturization, automation, propulsion, materials, and manufacturing. These capabilities will reduce energy consumption and enable us to better sustain forward forces while accommodating new weapons such as directed energy systems and electromagnetic railguns.
- Develop alternative weapon systems such as directed energy and electromagnetic railguns. The directed energy weapons will counter threats at the speed of light with extreme precision and

- an unlimited magazine. The railgun will provide precise naval surface fire support, land strikes, and ship defense to deter enemy vessels at greater ranges.
- Continue developing innovative alternate energy sources and efficiency technologies. Hybrid powerplants, for example, are in service today and are increasing the on-station time and operational availability of our surface forces.

MARITIME SECURITY

To combat terrorism, illicit trafficking, piracy, and threats to freedom of navigation in the maritime domain, we will:

- Increase our capabilities in integrated maritime detection, monitoring, and intelligence, along with those of our allies and partners, to improve global maritime domain awareness. This involves exploring more stringent Automated Identification System reporting requirements for vessels weighing less than the currently mandated 300 tons, as well as fielding innovative technologies that enhance effectiveness against the small vessel threat.
- Strengthen the International Port Security Program to further ensure the integrity and legitimacy of commercial vessels and cargo traveling to our shores.
- Enhance our interoperability and capability to perform visit, board, search, and seizure in contested environments.
- Improve interoperability between Navy and Coast Guard vessels, aircraft, and shore facilities, in accordance with the National Fleet Policy to maximize sea control and maritime security capabilities.
- Support our allies and partners through training, exercises, and the provision of capabilities, via foreign military sales and financing, to increase their capacity to address maritime security challenges.

Through institutional changes, balanced investments, and a commitment to developing our Service members, we will build a future force that is capable and combat-ready.

CONCLUSION

he United States will increasingly leverage its Sea Services in the pursuit of its national security objectives. In this turbulent world, the Sea Services provide the Nation with credible, flexible, and scalable options to sustain freedom of the seas, rapidly respond to crises, and deter and defeat aggression. This strategy identifies a series of geopolitical, military, and fiscal challenges, as well as opportunities for naval forces to shape or overcome them.

As we face the challenges of the 21st Century, we will remain committed to the development of our people; we will validate new operational concepts; and we will employ innovative capabilities that sustain our warfighting advantages, particularly in contested environments. Meeting these challenges requires that we embrace the global network of navies, because we are stronger when we work together with our allies and partners.

Our foremost priority remains the security and prosperity of our Nation, the American people, and our way of life. This strategy ensures that the Navy, Marine Corps, and Coast Guard continue protecting American citizens and advancing U.S. interests, as we have done for more than two centuries. American seapower—forward, engaged, and ready.



Our most important asymmetric advantage—the men and women of the Navy, Marine Corps, and Coast Guard—are committed to implementing A Cooperative Strategy for 21st Century Seapower.













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