An Introduction to Joint Operations on and from the Sea

Using the Sea as an Operating Platform
The Combined Joint Operations from the Sea Centre of Excellence (CJOS COE) was established in 2006 to provide a focal point for Joint Maritime Expeditionary Operations expertise for allied nations. With 13 nations represented, CJOS COE is the only Centre of Excellence in the United States and is one of 17 accredited Centres worldwide, representing a collective wealth of international experience and expertise.

Pictures on the front cover from left to right:
1. Liberia 2004 Operation UNMIL: Dutch elements from the embarked Amphibious Beach Unit (operating from the HNLMS ROTTERDAM) on a beach in Liberia. Photo source: Netherlands Ministry of Defence.
3. NATO's Standing Naval Force Mediterranean, 9 June 2007. Photo released by NATO.
A Message from the Deputy Director CJOS COE:

In our world where instability is a guaranteed constant, nations are routinely faced with multifaceted domestic, regional, and international challenges. From domestic defence and security issues, to the protection of national exclusive economic zones, to the freedom of movement within the global maritime commons, the issues are broad, complex, and ever-changing. These challenges are often interrelated, requiring governments to develop solutions that are increasingly more international in nature. The result is more cooperation, with nations acting bilaterally or working multilaterally to find solutions.

Cooperation amongst nations and the many international entities is not always easy, with economic, political and social constraints sometimes impacting the willingness and ability to act. In consideration of these constraints and the dynamic security environment, this handbook demonstrates the flexible options of the maritime platform, and highlights the benefits of using such naval platforms and the sea as an operating base to address both current and future crises.

Joint Operations on and from the Sea highlights the significance and the possibilities of operating on and from the sea in support of joint and multinational operations. The flexibility and scalability of naval forces enable prompt and effective responses to a variety of scenarios from humanitarian aid and disaster relief operations to crisis prevention and combat operations. Today’s asymmetric threats demand a dynamic response within a politically, economically, and socially sensitive environment. Forces operating on and from the sea can provide this capability and sustain it for extended periods.

I hope you find this handbook thought provoking and beneficial in the development of your nation’s response to the many challenges facing the global community.

Sincerely,

Steve J. Chick
Commodore, Royal Navy
Deputy Director, Combined Joint Operations From the Sea Centre of Excellence
CHAPTER 1
INTRODUCTION

1.1 PLATFORM AT SEA
On March 19th, 2011, just hours after the NATO\(^1\) Nations agreed to act; Tomahawk cruise missiles struck approximately 20 targets inside Libya in an international effort to destroy Libyan air defence capabilities. These strikes, the initial salvos of Operation UNIFIED PROTECTOR, were launched from a mix of NATO surface ships and submarines operating in the Mediterranean Sea. NATO’s prompt action, following the U.N. Security Council approval of a resolution 24 hours earlier authorizing “all necessary measures” to protect Libyan civilians (including the enforcement of a no-fly zone over Libya), was an effective, multinational effort to resolve the conflict and protect human lives. Appropriately, maritime platforms played a key role in this effort. In addition to the Tomahawk cruise missile strikes, coordination of refuelling, surveillance and fighter aircraft from NATO nations was carried out from the command ship USS Mount Whitney, deployed in the Mediterranean Sea. Moreover, ships and submarines from various nations were in place off the Libyan coast for weeks in advance, awaiting the political decision to conduct offensive operations to assist and protect the Libyan population. Many of these forces remained in place for the duration of UNIFIED PROTECTOR.

\(^1\) NATO: North Atlantic Treaty Organization, also referred to as the “Alliance”.

April 4th, 2011. HMS Triumph returns home after deployment to the Mediterranean. HMS Triumph was one of the first NATO ships firing Tomahawk cruise missiles on Libyan military targets on March 19th, 2011. Photo source: GBR MOD 2011.
This internationally coordinated operation demonstrated the advantages of deploying maritime forces in the open seas to await and enforce political decisions. The wide range of capabilities that nations have when deploying maritime assets while using the sea as an operating platform can be employed globally in a wide variety of crisis situations, from providing Humanitarian Assistance and Disaster Relief (HADR) to supporting initial entry operations for a land force during an armed conflict. Joint Operations on and from the Sea provides nations an excellent strategy for operations in today’s rapidly changing world, where defence forces are increasingly used in ways outside of traditional boundaries. Maritime forces are particularly valuable in the preliminary stages of an emerging crisis, where early influence, coercion or military intervention may help to prevent a tenuous situation from deteriorating into armed conflict. The sea, with its vast operating area, enables nations to preposition forces while awaiting political decisions, without the need to ask another country’s permission.

1.2 FLEXIBLE AND SCALABLE
Recognizing the advantages and capability enhancements from operating on and from the sea, several nations have already committed time and resources toward the creation of doctrine and assets supporting this maritime concept. Within the Alliance, a “NATO Joint Sea-based Logistic Support (NJSL)” concept has been approved. This concept addresses issues related to logistic support to expeditionary operations from the sea. Nevertheless, operating on and from the sea is more than a logistics concept. It is an expeditionary capability ready to be employed at short notice - within days - that provides joint force commanders the ability to initiate and conduct operations throughout the spectrum of force. It provides immediate access to the crisis area, and simultaneously reduces vulnerability to asymmetric threats. “Joint Operations on and from the Sea” can be used for all types of operations, and is scalable from the deployment of a single ship to an entire fleet, depending on the size and type of the operation.

January 2010. The Italian aircraft carrier, CAVOUR, on its way to Haiti. Photo source: Italian Navy.
This introduction to Joint Operations on and from the Sea provides an overview of the wide variety of joint operations and the range of capabilities that the Alliance can bring to bear when using the sea as its main operating platform. This is an “easy-to-read” guide, using past operations as examples to accentuate the advantages provided by maritime assets and leveraging the “freedom of the sea”. It demonstrates that the sea can be used to pre-position forces and, if necessary, project them ashore. Maritime platforms also give access to non-permissive crisis areas and help to achieve security in our uncertain and fast changing world.

1.3 JOINT OPERATIONS ON AND FROM THE SEA OVERVIEW
Chapter 2 describes the evolving world environment and emerging threats that are challenging the Alliance to operate outside of its traditional boundaries. Chapter 3 defines Joint Operations on and from the Sea and discusses different types of operations where this concept can be employed. Chapter 4 outlines the capabilities that maritime forces contribute to a variety of operations or missions. Chapter 5 uses historical and current crisis operations ranging from low-intensity to high-intensity conflicts to illustrate how the unique capabilities of operations from the sea contribute to the success of a mission or an operation. Chapter 6 describes NATO’s response to this fast changing environment, as communicated in the “2011 Allied Maritime Strategy”. Chapter 7 provides conclusions and general recommendations.

April 2010. In support of European Union (EU) Operation Atalanta, the landing craft of the NLD Landing Platform Dock (LPD) HNLMS Johan de Witt were used to establish Afloat Forward Operating Bases (AFOBs) off the coast of Somalia. The fast LCVP’s (Landing Craft Vehicle Personnel) were used to intercept Somali pirates before they could seize any merchant ships. The NLD LPD could launch two AFOB’s, each operating within its own area. The AFOB’s were able to operate independently for days. Photo by Theo Mestrini.
CHAPTER 2
THE ENVIRONMENT: NEW THREATS IN A RAPIDLY CHANGING WORLD

2.1 INSTABILITY OUTSIDE TRADITIONAL NATO TERRITORY
In the last decade, NATO and its member Nations have confronted a rapidly changing world, ranging from crises in the Balkans and wars in Iraq and Afghanistan, to conflicts in many nations in North Africa and the Middle East. Each of these crises has a maritime component. From protection of food supplies for the World Food Programme in Africa to the conduct of combat operations from sea, developments and trends impacting the Alliance include:

1. **Increasing world globalization.** Globalization is a process of interaction and integration among people, companies and governments of different nations. It is a process driven by international trade and investment, and aided by information technology. This process has effects on the environment, culture, political systems, economic development, prosperity and the human physical well-being in societies around the world. Quite simply, the world is connected by water and there must be a force in place to ensure security and unrestricted access to the sea for free nations and other legitimate players.

2. **An increasing terrorist threat.** After the terrorist attacks on the United States on September 11th, 2001, there was increased fear of new large scale terrorist attacks. Intelligence reports indicate that the terrorist threat is diversifying with respect to sources and tactics. These changing tactics have resulted in fewer opportunities to detect and disrupt terrorist plans. Terrorist groups have demonstrated the ability to carry out an attack by air, land, or sea. Cooperation among nations can impede terrorist access to the maritime domain.

3. **The rise of new global powers.** India and China were identified as “new global great powers” by a U.S. Department of Defence review, which predicted that U.S. dominance, including that of its military, would diminish in coming years. Additionally, an independent panel identified an accelerating global competition for resources. This increasing demand, fuelled particularly by China and India, combined with diminishing supplies of hydrocarbons and the increasing scarcity of water, will link two geopolitical trends: turmoil in the Middle East and an increasing demand for (natural) resources.

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2 Globalization 101; the Levin Institute.
This will result in ever-larger global consequences and attract increased interest from outside powers, both of which increase the potential for instability and conflict.

4. **Threats to the maritime environment.** Today, approximately 90 percent of the world’s commerce is dependent upon sea trade. Seventy-five percent of that trade passes through a few, vulnerable waterways and international straits. This maritime environment consists of trade routes, choke points, ports and other infrastructure, such as pipelines, oil and natural gas platforms, and trans-oceanic telecommunications cables. Global trade relies heavily upon secure and low-cost international maritime transportation and distribution networks, which are vulnerable to disruption. Even short interruptions to maritime lanes of commerce and communication would seriously impact international trade and Allies’ economies, particularly with regard to energy supplies.

The protection of freedom of navigation, sea-based trade routes, critical infrastructure, energy flows, marine resources, and environmental safety are all vital to the Allies’ security interests. The world’s oceans and seas are an increasingly accessible environment for transnational criminal and terrorist activities, including the transport and deployment of weapons of mass destruction and associated materials. Criminal activity in the maritime environment includes increasing incidences of pirate attacks in the vicinity of the Horn of Africa and the Indian Ocean, raising concerns about the safety of merchant vessel crews and private citizens. Other criminal activities using the sea include the illegal trafficking of humans, weapons and narcotics.

5. **The importance of the maritime global commons.** There are four major domains identified within the global commons\(^5\): air, space, cyber space and water space\(^6\). This handbook refers specifically to the water space, or maritime global commons. The maritime global commons are used not only by state actors, but also by commercial groups, private enterprises, and non-state actors. The maritime global commons links global nodes using the freedom of the high seas to enable transportation, communications and security. The maritime global commons also relies heavily on the other domains, and threats to any of these domains will impact the other domains to varying degrees. Regardless of the reason—be it political, economic or national security interests—securing and maintaining the maritime global commons is in the best interest of all nations.

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\(^5\) The term ‘global commons’ refers to the areas of the world that aren’t owned by one country and may be viewed as shared international spaces.

2.2 NATURAL DISASTERS AND AN INCREASING NUMBER OF COASTAL AREA MEGA-CITIES

In the last decade, a large number of areas around the world have experienced severe natural disasters. Some examples include the tsunami in South East Asia (December 2004), Hurricane Katrina in the Gulf Coast of the U.S. (August 2005), the earthquake in Pakistan (October 2005), the earthquake in Haiti (January 2010), and the earthquake and tsunami in Japan (March 2011). These natural disasters demonstrate that rapid response time is critical to saving lives, mitigating the spread of disease, and stabilizing infrastructure. While some countries are capable of providing an initial response capability, others require assistance from the international community for both initial and long term response. Operating on and from the sea can provide a number of benefits when responding to a natural disaster, including improved ease of access, reduced reliance on shore-based hospitality services, and logistics coordination/deconfliction.

Simultaneously, global urbanization is creating the rise of more mega-cities. Many of these mega-cities are located in locations that have potential geographic hazards, such as coastal areas or seismically active zones. Clearly the impact of a severe natural disaster, such as an earthquake, hurricane, or tsunami, will have a disastrous effect upon these large, growing urban centers. Shore-based emergency response services may be overwhelmed when faced with a large natural disaster. Maritime platforms can provide additional response assistance, including transportation/logistics coordination, communications support, and medical/food distribution.

A recent United Nations (UN) report described mega-cities in the world as merging into “mega-regions”, which may stretch hundreds of kilometres across countries and be home to more than 100 million people. According to the UN, the phenomenon of the so-called “endless city” could be one of the most significant developments - and problems - in the way people live and economies grow in the next 50 years. The urbanization trend will dramatically increase the devastating effect that natural disasters will have on these densely populated areas and will challenge governments to develop innovative and robust emergency response solutions.

7 A mega-city is defined as greater metropolitan regions with over ten million inhabitants.
8 UN-Habitat; Bi-annual State of the World’s Cities report, 2008.
CHAPTER 3
JOINT OPERATIONS ON AND FROM THE SEA

3.1 DEFINITION
Because there is currently no approved NATO definition of “Joint Operations on and from the Sea”, the following definition is offered:

*Joint Operations on and from the Sea* “is the joint use of seaborne platforms to command, control, and conduct joint operations on and from the sea and to project, support, and sustain national or multinational organisations and forces even when operating ashore”.

3.2 DEFINITION EXPANDED
The deployment of maritime forces in response to a crisis is a strong and visible demonstration of national commitment. Nations can make great use of seaborne platforms to support power projection ashore or to take advantage of the relatively more secure environment at sea. In any case, sea basing minimizes the “footprint” ashore. In the past, large quantities of supporting assets for operations were deployed on land; today, emerging threats to on-shore facilities have forced nations to reconsider and reduce their shore infrastructure. Furthermore, in some situations, particularly natural disasters, it may be impossible to deploy quantities of personnel and equipment ashore due to limited support infrastructure. Rather than add to the chaos, maritime platforms enable shore functions without creating additional demands on the strained infrastructure.

Another benefit of maximizing the use of maritime forces operating from the sea is the ability to task, tailor, and scale the force into force packages to meet varying mission requirements. By operating from the sea and using the sea as the main operating base, NATO can conduct the entire range of possible “Non-Article 5 operations”, ranging from low-intensity peacetime military engagement to high intensity combat operations.

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® Article 5 in the 1949 NATO Treaty states that an attack on any of the individual NATO Nations will be considered as an attack against all the Nations. Alliance activities falling outside the scope of Article 5 are referred to collectively as “Non-Article 5 Operations”. 
Joint Operations on and from the Sea include a full spectrum of operations, to include embargo, anti-piracy, Humanitarian Assistance and Disaster Relief (HADR), maritime interdiction and security, presence, deterrence, Non-combatant Evacuation Operations (NEO), and support to diplomacy operations. These missions can be executed across a broad array of force packages, from a single ship to a full scale naval task group.

Naval assets play a crucial role in support of combat operations by transporting initial entry forces when deployment on land cannot be achieved due to the absence of host nation support. A lack of host nation support can impede the build-up, support, and sustainability of ground forces. NATO’s expeditionary maritime forces ensure that the Alliance can get the required forces to the right place at the right time, without dependence upon a third party nation to provide an assembly area. NATO, and particularly the U.S., possesses a strong strategic mobility and projection capability from the sea. Moreover, a critical advantage of conducting joint operations from the sea is the protection afforded to the rear echelon and logistics chain. Ground based logistic support, most notably rear-echelon units, is vulnerable to a potential adversary. This creates the need to protect that logistic support against any threat. Establishing logistic support at sea aboard naval or merchant ships provides a higher level of protection.¹⁰

Joint Operations on and from the Sea includes shaping operations, which are typically

¹⁰To increase responsiveness, the U.S. created the Maritime Prepositioning Force, consisting of 13 Maritime Prepositioning Ships (MPS) that are organized in three squadrons. Each MPS Squadron carries sufficient equipment and supplies to sustain 17,000 Marine Corps Air Ground Task Force personnel for up to 30 days. These squadrons are deployed strategically throughout the different possible crisis areas in the world. However, the high degree of unpredictability regarding where a future conflict (or disaster) may unfold makes it extremely difficult to pre-position units at a suitable location.
low-intensity in nature, occur in a permissive environment, and are designed to increase stability in a region or country. These operations consist of strategies and objectives designed and shared by interested parties to provide stabilizing assistance to potentially troubled regions, but with significantly less investment than a full-blown conflict. The use of maritime forces in shaping operations is ideal, due to their inherent capability to execute these strategies with a significantly smaller footprint ashore. As demonstrated by the African Partnership Station and Continuing Promise missions in South America\(^{11}\), this approach on and from the sea can be very effective in achieving stabilizing objectives while fostering regional security and cooperation.

Finally, the relatively secure environment of the open sea, with the ability to closely monitor the most obvious approach lines, provides an alternative venue to host high level, sensitive meetings of leadership. For example, G-8\(^{12}\) meetings, or negotiations between two opposing nations or parties, can take place in the relative safety and impartial environment on board a Navy ship. This inherently secure environment at sea can save a nation the considerable expense required to host an event on land, and can arguably allow for better security than a land-based summit.

March 2\(^{nd}\), 2011. Canadian Chief of the Military Staff VADM Dean McFadden, along with other members of the navy, salutes as HMCS Charlottetown departs Halifax Harbour on Op MOBILE. Operation MOBILE is the Canadian Forces’ participation in Operation UNIFIED PROTECTOR, the NATO-led effort to impose on Libya the arms embargo and no-fly zone called for in U.N. Security Council Resolution 1973 of 17 March 2011, which authorizes the international community to “take all necessary measures” to protect civilians in Libya. Photo by Cpl Rick Ayer.

\(^{11}\) Africa Partnership Station (APS) is a U.S. Navy led program aimed at strengthening emerging partnerships in West and Central Africa to increase regional and maritime safety and security. Continuing Promise is a similar US program run in Latin America and the Caribbean more focused on civil-military cooperation in particular dealing with humanitarian aid and disaster relief.

\(^{12}\) The G8 compromises seven of the world’s leading industrialised nations and Russia. The leaders of these countries meet face-to-face at an annual summit that has become a focus of media attention and protest action.
CHAPTER 4
NATO MARITIME JOINT CAPABILITIES

4.1 CAPABILITIES DEFINED
NATO maritime forces contribute to each of the seven essential joint operational capabilities\textsuperscript{13} to conduct or support Non-Article 5 Crisis Response Operations from the sea. The seven Joint operational capabilities are as follows:

1. **Effective Engagement.** The mere presence of maritime forces can be a significant factor in deterring or containing conflict. Naval forces can establish long-term presence, crisis response, and extended deterrence within and beyond the NATO area of responsibility. In addition, maritime forces minimize the need for host nation support and force protection as opposed to a situation with permanent shore-based forces and their exposure to a variety of threats. Maritime forces organised in Task Forces (TFs) or Task Groups (TGs) bring a large, diverse and precise strike capability, able to reach far inland employing air assets operating from carriers and “Ship-to-objective-Maneuver (STOM)”-capabilities\textsuperscript{14} developed by the U.S. Navy and the U.S. Marine Corps.

2. **Effective Intelligence.** Effective intelligence is a crucial enabler that allows the Commander to make timely decisions during operations. Maritime forces contribute to intelligence collecting through various maritime intelligence capabilities from the air, sea and under the sea.

3. **Deployability and Mobility.** Sea-based forces are highly mobile and flexible. They can exploit the freedom of navigation of the sea, are ready to move at very short notice (hours), and are capable of arriving in the designated operations area already

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\textsuperscript{13} AJP 3.1: Allied Joint Maritime Operations.

\textsuperscript{14} Ship To Objective Maneuver (STOM) is the ability to strike or conduct operations from the sea on an objective farther inland without first building up a large force ashore. These capabilities include the V22 Osprey tilt-rotor aircraft and the LCAC (Landing Craft Air Cushion), a fast “hovercraft” that can carry an infantry-company of Marines or an M1 Abrams battle tank.
manned, equipped and ready to conduct operations. They can establish a scalable military presence and demonstrate political intent. Maritime forces provide the Joint Commander with a number of unique advantages, such as highly ready and sustainable units, and the ability to deploy over long ranges. Deployability and mobility also exemplify the capacity of strategic sealift to move freely and flexibly. For example, the U.S. Military Sealift Command (MSC) currently operates approximately 110 non-combatant, (primarily) civilian-crewed ships worldwide, providing logistics support to Allied nations. In addition, the command has access to 50 other ships that are kept in a reduced operating status, yet ready to be activated if needed.

4. **Timely Force Availability.** NATO maritime forces offer considerable flexibility in terms of capability, platform versatility, readiness and well-practised multinational cooperation and interoperability. These qualities enable mission-oriented Task Forces and Task Groups to be formed relatively quickly and efficiently. NATO has created the NATO standing naval forces (SNFs), which are already formed, ready, and available to provide the nucleus for such tasks. The U.S. Maritime Prepositioning Force (belonging to U.S. Military Sealift Command) adds to this capability.

5. **Effective Command and Control.** Effective Command and Control (C2) is essential to the success of NATO joint operations. It relies on cohesion and interoperability between all command levels. Maritime units can rapidly provide operational level C2

![On the forefront, artistic impression of the new (to be built) Joint Support Ship (JSS) of the NLD Navy: HNLMS Karel Doorman. The JSS will be a multi-role supply ship to be deployed in support of a large variety of joint operations on or from the sea. Facilities include decks for multiple helicopters, replenishment at sea (goods and fuel), medical facilities, command & control, multiple fast Rigid Hull Inflatable Boats (RHIBs) with a special dock in the ship's stern. Photo source: Damen Schelde Naval Shipbuilding.](image-url)
facilities for the Joint Force Commander during the initial stage and throughout an operation. Furthermore, modern frigates and larger amphibious ships have additional command and control facilities on board to enable higher command staffs. Finally, a few select platforms can provide effective C2 at the Joint Commander (operational) level. USS Mount Whitney is one of the best equipped ships within the Alliance to execute this role. In addition, several other NATO nations have considerably expanded their maritime command and control capabilities on ships. One such example of enhanced C2 packages is the ITS ETNA, which deployed as EUNAVFOR (European Union Naval Force) SOMALIA's command ship in Operation ATALANTA in 2010.

6. Logistic Sustainability. Maritime forces are by themselves largely self-sustaining. They include organic logistic support, enabling them to operate independently of host nation support for prolonged periods. Such independence is particularly valuable in the early stages of a land campaign when logistic resupply may not be fully established, or where a large footprint ashore is less desirable or not feasible. Military strategic sealift and contracted merchant shipping can be used to transport material, logistic supplies and keep these afloat in the protected vicinity of a coastline. Similarly, when conducting humanitarian aid or disaster relief operations, large quantities of relief goods can be kept at sea until required in the crisis-area. Additionally, NATO nations have a significant amphibious capability, which enables large quantities of troops to be accommodated at sea.

![Image of USNS COMFORT](image-url)

The USNS COMFORT “floating hospital” has a helicopter deck, 1,000 beds, 12 operating rooms, four intensive care units, a medical lab, an optometry lab, CT scan devices, an emergency room, a blood bank containing more than 3,000 units, facilities to handle chemical or nuclear contamination and other medical services typically found in a large city hospital. When operating at full capacity, the USNS COMFORT is staffed with 1,200 active duty medical and hospital support personnel, and 60 civilian mariners who operate the ship. Photo source: U.S. Navy.
Enhancing the logistics sustainability, hospital ships, contemporary multipurpose ships, and large amphibious ships (i.e. ITS Cavour) provide a medical capability. This capability has gained significant visibility, and has proved its value on numerous occasions, specifically in support of HADR operations.

7. Survivability and Force Protection. Maritime forces have a wide variety of capabilities to protect their own environment, which includes the joint forces, civilians, essential infrastructure, or merchant shipping (as seen with maritime counter piracy operations). Maritime forces, operating with the natural protection of the sea, inherently have a reduced vulnerability to asymmetric warfare and nuclear, biological, radiological and chemical threats.

NRP Viana do Castelo (P360), Portuguese Navy is an ocean going patrol ship. Various NATO nations (i.e. The Netherlands, Portugal and Italy) have started to build smaller ships that can operate not only in the littorals but also on the oceans. These ships are very effective for force protection and in particular for Maritime Interdiction Operations (MIO), including embargo, maritime counter piracy and anti-drugs operations. Photo source: Portuguese Navy.
Driven by budget cuts, many nations are adapting the capabilities of their maritime forces to meet current and future threats. For example, Italy, Portugal and The Netherlands are procuring multipurpose, ocean-going off-shore patrol vessels that can be deployed in multiple roles. They have sufficient size and capability to conduct embargo operations, maritime counter piracy and drug trafficking control operations. They are also capable of providing force protection to maritime and merchant shipping involved in a joint operation in support of operations on land, close to shore or in the littoral. The U.S. has developed a littoral combat ship, which utilizes different modules and force packages tailored to the mission, thus enhancing its versatility.
CHAPTER 5
CURRENT AND PAST JOINT OPERATIONS ON AND FROM THE SEA

5.1 OVERVIEW
This chapter examines different operations conducted by NATO or NATO nations across the spectrum of conflict. On a number of occasions, only a small number of ships were deployed, and in some cases, only a single naval asset. During other operations, such as the support of the humanitarian aid and disaster relief (HADR) mission following the Haiti earthquake, a large number of both military and merchant maritime assets operated in a relatively small area. This chapter identifies the specific and unique capabilities that enabled successful operations, and highlights the advantages of using maritime assets to execute the mission.

5.2 PEACETIME JOINT OPERATIONS FROM THE SEA AND SUPPORT TO CIVIL AUTHORITIES

1. Maritime Presence through Standing Naval Forces. NATO has two Standing NATO Response Force (NRF) Maritime Groups (SNMGs) and two Standing NRF Mine Counter Measures Groups (SNMCMGs), which participate in exercises and operations when naval presence is required. The usual SNMG comprises between six and ten destroyers and/or frigates supported by a tanker; the SNMCMG contains approximately seven mine hunters and minesweepers led by a command ship. NATO’s Standing Maritime Groups have been engaged in Operation Ocean Shield\(^\text{15}\), conducting maritime counter piracy operations in the Gulf of Aden and off the Horn of Africa, and Operation Unified Protector off the Libyan coast. These Standing Maritime Groups give NATO the capability of timely force availability and presence in those areas of the world where crises may occur. The United States has similar maritime forces deployed throughout the world as Amphibious Ready Groups (each with approximately three ships) and Carrier Strike Groups (each with approximately seven ships).

2. Humanitarian Aid and Disaster Relief. There are many past examples where maritime forces possessed the right capabilities to support aid and relief operations

\(^{15}\) Operation Ocean Shield is NATO’s contribution to international efforts to combat piracy off the Horn of Africa. This operation commenced 17 August 2009 after the North Atlantic Council (NAC) approved the mission.
After a natural disaster or catastrophe. This is especially true when a large deployment of ground forces is impractical or not desired by the country in need. During these operations, maritime assets can rapidly transport large quantities of aid supplies, specialized equipment and supporting forces to the vicinity of the disaster area. From a civil military cooperation perspective, these forces can also assist international organisations, both governmental and non-governmental, by providing command and control, medical, hotel and conference facilities. Additionally, naval amphibious assets are ideal tools to transport necessary goods and personnel from maritime platforms (at sea) to the area of need (ashore).

After an earthquake struck Haiti in January 2010, an enormous military effort was initiated in support of the UN relief mission. Due to the total destruction of Haiti’s main infrastructure, all air and naval control of the operation was initially executed from sea.

The U.S. Navy, in cooperation with the navies of other nations, chose to deploy a very small footprint ashore and made use of the sea as their operating platform. The self-sustainability of the maritime force greatly enhanced its ability to contribute to relief efforts; the relief force did not require a footprint ashore which would consume resources and burden the already overwhelmed and devastated Haitian infrastructure. Helicopters and amphibious landing craft were used to evacuate injured civilians to the medical facilities on board deployed naval ships. The hospital ship USNS Comfort deployed to Haiti, bringing 12 operating rooms and a capacity of 1,000 beds. Indeed, the greatest challenge was coordination with the civilian authorities to deliver goods, equipment and other services to the right places at the right time. As demonstrated by the Haiti relief operations, a maritime force can provide more capabilities than simply logistics and medical support. Maritime forces can provide intelligence capability, communications, and force protection, and bring them all from the sea through the use of amphibious landing craft, helicopters, and fixed wing assets. The maritime force is clearly less dependent on accessibility to the crisis area than shore-based forces in order to provide critical support.
3. Shaping Operations. A comprehensive international effort to assure friendly nations, enhance legitimacy, and promote stability describes Shaping operations. One example is Africa Partnership Station, which is part of an international commitment of nations and organisations from Africa, the United States, Europe and South America. Although the program is executed in a variety of ways (such as aircraft visits and construction projects), the main effort is conducted by an assigned ship or ships. Activities include joint exercises, port visits, instructional courses16, and professional training with African coastal nations. The focus is to build the local national maritime capacity and increase the level of cooperation between them, thus enhancing maritime safety and security in the whole region. The goal is to improve the capability of the nations involved to establish maritime governance within their own territorial waters and exclusive economic zones, increasing their ability to combat illegal fishing, human smuggling, drug trafficking, oil theft and piracy. Africa Partnership Station projects also contribute to increased maritime safety by teaching skills to enhance a nation's ability to respond to mariners in distress. There are similar maritime partnerships performed in other areas of the world. As correctly observed by the American Forces Press Service, “Africa Partnership Station is inspired by the belief that effective maritime safety and security will contribute to development, economic prosperity, and security ashore.”17

Maritime partnership programs make use of the unique capabilities of maritime forces to improve stability in a region of the world by improving maritime safety and security. This requires no footprint ashore, and is executed by an international team of both military and civilian experts.

4. Maritime Counter Piracy (MCP). In recent years, the International merchant shipping community has experienced a dramatic increase in piracy launched from the Horn of Africa, particularly Somalia. In 2008, several nations and international organisations, supported by various United Nations Security Council resolutions, launched a number of maritime counter piracy operations. This campaign is conducted in close cooperation with civil authorities, including the international commercial shipping community, regional maritime organisations, and international and local law enforcement agencies. Due to the various naval task groups conducting MCP operations amongst other naval vessels from India, China and Russia, this mission is conducted in a true joint and multinational environment. Good communication, cooperation and interoperability are essential. Sharing information and enforcement duties is critical to overall mission success. Joint forces and agencies contribute to intelligence gathering and surveillance; provide logistic support to the ships patrolling for extended periods, and conduct synchronized operations against pirates ashore.

A key example is Operation ATALANTA, which is principally an anti-piracy mission, and the first European Union (EU)-led naval operation off the coast of Somalia. The EU Task Group, named European Union Naval Force (EUNAVFOR) Somalia, commenced its operations in December 2008 under the Common Security and Defence Policy18 to protect

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16 The courses cover a variety of subjects from basic nautical skills to more specialized maritime security operations. Those in attendance included enlisted personnel to senior officers. Also, general topics such as human rights and gender based violence are introduced to sailors of the various African Nations.

merchant sailors and reduce the disruption to the shipping routes and the destabilisation of the region. EUNAVFOR Somalia typically consists of five to ten surface combat ships, one or two supply ships, and two to four maritime patrol and reconnaissance aircraft. The number of ships fluctuates with the monsoon season, which also determines piracy activity. Besides escorting and monitoring merchant shipping in the area, one of the key missions of EUNAVFOR Somalia is the protection of ships chartered by the World Food Program (WFP), which delivers food and other relief products to displaced persons in Somalia and neighbouring countries. Since the operation started, not one WFP ship has been seized by pirates. The WFP has delivered over 480,000 metric tons of goods to the area through different ports.

Another example is Operation OCEAN SHIELD, NATO’s contribution to combat piracy off the Horn of Africa. OCEAN SHIELD commenced in August 2009 with the approval of the mission by NATO’s North Atlantic Council. Operation Ocean Shield builds on the experience gained during Operation Allied Protector, NATO’s previous counter-piracy mission, and develops a distinctive NATO role based on the broad strength of the Alliance by adopting a comprehensive approach to counter-piracy efforts. This operation, which represents an extension by NATO of counter-piracy operations, entails the following military tasks:

- Deter, disrupt and protect against pirate attacks, and render assistance to ships in extremis as required.
- Actively seek suspected pirates and prevent their continued activity through detention, seizure of vessels and property, and the delivery of suspects and evidence to designated law enforcement authorities, in accordance with NATO agreements.
- Coordinate NATO operations and initiatives with coalition maritime forces, EU naval forces, and other non-NATO forces conducting counter piracy operations off the Horn of Africa.

April 2010. Dutch marines rappel down from a Lynx helicopter to free the crew of the German MS Taipan, hijacked by Somali pirates off the Somalia coast. The marines and the helicopter were operating from the Dutch frigate HNLMS Tromp part of the EUNAVFOR SOMALIA Task Group. Photo source: NLD Ministry of Defence.

\[18\] EU Member states have committed themselves to a Common Foreign Security Policy for the European Union. The European Common Security and Defence Policy aims to strengthen the EU’s external ability to act through the development of civilian and military capabilities in Conflict Prevention and Crisis Management.
One novelty is that the Alliance has broadened its approach to combating piracy by introducing a new element to its mission -- it is currently exploring ways in which it could offer assistance by developing regional states’ own capacity to combat piracy activities if requested. Of course, all counter-piracy efforts are closely coordinated with the EU Maritime Security Centre Horn of Africa (MSC HOA), which also has the lead role in the coordination of the group transits through the Gulf of Aden.

5. Maritime Counter-drugs Operations. The Caribbean Sea has long been a favored route used by Colombian crime groups to smuggle huge amounts of cocaine to the United States every year. Drug trafficking, with its related domestic and transnational criminal activities, continues to place a great deal of pressure on various institutions, including those responsible for security and law enforcement. Due to the large amounts of money involved, these criminal activities and corruption cause impacts on security within the region as well. Drug trafficking can lead to a high rate of armed violence in the region, and a related lack of trust in local law enforcement due to suspected ties with the drug cartels. Furthermore, the increase in corruption at the highest levels, money laundering, related drug activities, and violence have led to near anarchy in some regions. If left unchallenged, this unrest could spread further.

As with counter-piracy, counter-drug operations in the Caribbean Sea should be a law enforcement mission under the responsibility of nations in the region. Due to the levels of corruption in the nations involved, and the fact that most drugs are smuggled to the United States, maritime counter-drug operations are executed under U.S. coordination. Ships from a variety of nations participate in these operations. Maritime counter-drug operations require close coordination with different law enforcement agencies of the countries involved. On many occasions, special U.S. Coast Guard units are embarked on
ships from various navies in order to perform the legal functions, including arrest, under international law.

Of significance, in April 2011, a major step forward was made in the fight to stop drug trafficking in the Caribbean. Eighteen countries developed a plan to implement the Treaty of San Jose (Costa Rica), authorizing military ships from participating countries to pursue maritime drug traffickers off each other’s coasts.

5.3 JOINT OPERATIONS FROM THE SEA IN SUPPORT OF CRISIS PREVENTION AND CRISIS RESPONSE

*Maritime Interdiction Operations, Embargoes and Imposing of No-Fly Zones.* For more than three years, NATO and the Western European Union\(^\text{19}\) effectively enforced both economic sanctions and an arms embargo against the former Yugoslavia. This active enforcement created the conditions for the Peace Agreement between Bosnia and Herzegovina. During the period of 22 November 1992 to 18 June 1996, approximately 74,000 ships were challenged, with 6,000 ships inspected at sea and over 1,400 diverted and inspected in port.\(^\text{20}\) During this period, no ship was reported to have broken the embargo.

The operation was initiated following UN sanctions in accordance with UN Security Council Resolutions. Combined Task Force (CTF) 440 was formed with NATO forces,

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\(^\text{19}\) The Western European Union was formed in 1949 by European Countries and this treaty included a collective self-defense chapter comparable with NATO Article 5.

\(^\text{20}\) NATO IFOR, Oct 1996; Final Fact Sheet.
mainly from Standing Naval Force Mediterranean and Standing Naval Force Atlantic, together with a contingency force from the EU. CTF 440 was organised into three task groups that patrolled designated areas in the Adriatic Sea, conducted training and enhanced the reputation of both the participating nations and NATO during port visits. The task groups were supported by maritime patrol aircraft operating from Sicily and Sardinia (Italy), and also by NATO’s early warning aircraft operating from as far away as Germany. Ships within the task groups typically had special units embarked to conduct boarding and inspection of suspected vessels.

The maritime task groups, supported by intelligence and information through National port authorities, aerial reconnaissance and the shared maritime picture from the participating ships, were extremely successful in achieving the stated mission.

5.4 JOINT OPERATIONS FROM THE SEA IN SUPPORT OF CONFLICT RESOLUTION

**Peace Support Operations: Peacekeeping and Peace Enforcing.** The deployment of HNLMS Rotterdam from November 2003 until February 2004 in support of the United Nations Mission in Liberia (UNMIL) is an excellent example of supporting an International effort to execute peacekeeping operations from the sea. In this case, available maritime capabilities were used to execute operations ashore where the contributing nation neither supports the deployment nor the exposure of troops on land. HNLMS Rotterdam contributed to the success of UNMIL during the initial phases of the operation.

HNLMS Rotterdam deployed with a large number of very effective capabilities, including advanced command and control, medical support, and logistic support capabilities with landing craft and two embarked Lynx helicopters. The embarked marines provided force protection ashore and in the vicinity of the ship using landing craft and fast Zodiac rubber boats.

HNLMS ROTTERDAM operated for three months in the waters off the Liberian Coast in support of UNMIL. The deployment was extended for a few more days because the Jordanian military facility in Monrovia was not yet operational and UNMIL required the medical facilities on the ship.

During the mission, HNLMS ROTTERDAM provided transport and materiel to deploying Ethiopian troops. On several occasions, Irish troops and vehicles were transported to remote parts of Liberia to conduct patrols inland. UNMIL soldiers were treated using the medical facilities on board, including an emergency evacuation by Lynx helicopter of three Irish soldiers seriously injured during a car accident. On 8 January 2004, HNLMS ROTTERDAM rendered assistance to a Nigerian ship in distress, communicated through a request from UNMIL HQ. The Nigerian ship was underway from Ghana to Monrovia with 275 Liberian refugees, mostly women and children returning to their country. HNLMS ROTTERDAM assumed control of the refugees and brought them to Monrovia. The refugees were accommodated on board where they received food, water and medical assistance. A special detachment from the ship also conducted hydrographical research in several harbours in Liberia to update international sea charts.
5.5 A MILITARY INTERVENTION FROM THE SEA IN SUPPORT OF A HIGH DENSITY CONFLICT (ALSO APPLICABLE TO PEACE ENFORCING OPERATIONS)

Deployment, sustainment and withdrawal of Initial Entry Forces. During a major crisis, NATO can deploy a highly capable and technologically advanced multinational force made up of land, air, maritime and Special Forces components. This NATO Response Force (NRF) is comprised of three parts: a command and control element, a response force of about 13,000 troops and, if necessary, an additional pool of troops. It is capable of performing missions world-wide across the entire spectrum of operations, including evacuation of non-combatants, humanitarian aid and disaster relief, counter-terrorism and acting as an initial entry force for larger follow-on forces.

The main combat element of a NATO response force, a brigade size (light) infantry unit, can be deployed from the sea in its initial entry force role, using the organic maritime and amphibious assets of the response force. These maritime forces will eventually need to be complemented with additional naval and merchant shipping to support the forces ashore for an extended period. The initial entry force will likely take control of various entry points, such as harbours and airfields in the operations area, and facilitate the arrival of the follow-on forces. It is not unthinkable that NATO’s response force will be deployed as an initial entry force in the future. It is also not unlikely that the operating area for this force will lack well-equipped entry points, like harbours and airfields that...
the local population will be unwilling or even hostile and the local government will be reluctant to provide support. These circumstances in combination with a high threat for friendly forces and facilities would support the need to sustain the initial entry force primarily from the sea. Another advantage of minimising the footprint ashore is the easier and faster withdrawal of forces after arrival of the main follow-on force. To execute an operation at this high-intensity level NATO will be highly dependant on U.S. maritime assets: the U.S. Navy and the U.S. Marine Corps have been developing and training to this concept as part of their efforts to rethink naval doctrine for the 21st century. Two manifestations of so-called “Sea Basing” emerged from those efforts. One was the overarching concept of the “sea as a base” that envisioned rendering all naval operations independent from the shore as much as possible. The other was the more concrete plans for a (renewed) Maritime Prepositioning Force (Future). Those plans, which were published in June 2005, described a squadron of specific ships organized to serve as an at-sea base of operations for ground forces as well as the operational concepts for employing them.21

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21 July 2007; U.S. Congressional Budget Office.
6.1 NATO’S ANSWER

NATO’s maritime answer to addressing the evolving international situation is the Alliance Maritime Strategy. This strategy “outlines the ways that maritime power could help resolve critical challenges facing the Alliance now and in the future, and the roles - enduring and new - that NATO forces may have to carry out in the maritime environment in order to contribute to the Alliance’s defence and security and to promote its values”. The roles articulated in this strategy take advantage of the maritime forces’ collective abilities to provide varying contributions in the areas of deterrence and collective defence, crisis management, cooperative security, and maritime security. Common themes amongst these roles further support the importance of Joint Operations on and from the Sea. Themes communicated in this strategy include delivering forces rapidly and decisively, maintaining the ability to deploy, sustain and support effective expeditionary forces, providing a base for operations at sea, and the deployment of joint command and logistical bases afloat. In order to be more efficient and effective, these roles require further transformation of NATO’s maritime organization and capabilities, to support the Joint Operations on and from the Sea concept.

Dutch sailors from the frigate HNLMS Zeven Provinciën cover the inspection of a small boat off the coast of Somalia during NATO Operation Allied Protector 2009. Photo source: NLD Ministry of Defence.

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CHAPTER 7
CONCLUSION AND RECOMMENDATIONS

7.1 CONCLUSION
Maritime platforms operating on and from the sea provide political, military, and commercial leaders with a vast multitude of benefits and opportunities. The flexibility, scalability, and response readiness of maritime forces enable leaders to respond efficiently and effectively to rapidly changing events, ranging from strategic presence operations to natural disaster response to peacekeeping and treaty enforcement. In today’s fiscally constrained environment, the many challenges to sovereignty -- globalization, the safety of international sea routes, the surging urbanization near coastal areas, and rising conflicts and unrest in a large number of nations -- justify the need to be able to deploy expeditionary maritime forces.

7.2 RECOMMENDATIONS
Domestic and international leadership must embrace the benefits of operating on and from the sea. As new threats develop and mature, leaders must seek opportunities to maximize the use of their maritime platforms. The integration of maritime capabilities with land-based and aviation-based forces provides a comprehensive solution to almost any domestic or international event. Additionally, it is imperative that nations sustain force readiness and structure in order to support national and international objectives. Fiscal constraints will certainly affect military readiness; leaders, however, must answer the challenge by tailoring force readiness and structure to support domestic and international commitments. Maritime platforms are clearly a cost effective answer to this issue. Finally, the maritime community should develop additional capabilities that leverage the strengths of the maritime platform and bring additional value to operating on and from the sea. Through the synergies of using a complement of ideal maritime platforms, the international community can further advance maritime capabilities and significantly strengthen the benefits of operating on and from the sea.

Boarding Team of ESPS Numancia consisting of members of the Spanish Marine Corps prepare for boarding operations during Exercise Seaborder 09. Exercise Seaborder 09 was a multinational naval exercise taking place in the Gulf of Cadiz (between Spain and North Africa) with participation of ships from Spain, Portugal, France and Morocco. Observers were present from other European and African Mediterranean nations. During the exercise the participating ships cooperated in the prevention of illegal immigration from North Africa to the Iberian peninsula in support of National immigration agencies. Photo source: Ministry of Defense Spain.
ANNEX 1: REFERENCES

1. NATO/WEU (2 Oct 1996); IFOR Final Fact Sheet Operation Sharp Guard.
2. NATO Handbook (updated 15 Oct 2002)
10. AAP-6 (2010), NATO Glossary of Terms and Definitions, NSA.
12. U.S. Fleet Forces Command (12 Feb 2010); Seabasing Concept of Operations for Low to Mid Intensity Operations.
13. Capt Scott E. Jasper (USN Retd), (2010; Stanford University Press); Securing Freedom in the Global Commons.
15. U.S. Senate Committee on Homeland Security and Governmental Affairs (22 Sep 2010); statement of Secretary Janet Napolitano; “Nine Years After 9/11: Confronting the Terrorist Threat to the Homeland”.
17. NATO North Atlantic Council (NAC) (16 Mar 2011); Alliance Maritime Strategy, C-M (2011)0023.
18. Allied Joint Publication: AJP-3(8) (March 2011); Allied Joint Doctrine for the Conduct of Joint Operations.
ANNEX 2: GLOSSARY

In this annex, official definitions (NATO and NATO nations) related to this subject are presented to give the reader a better understanding of the topics discussed in this introduction on “Joint Operations on and from the Sea.”

**Allied Joint Operation**: An operation carried out by forces of two or more NATO nations, in which elements of more than one service participate (AAP-6).

**Amphibious Readiness Group/Marine Expeditionary Unit** is an operational U.S. Navy/Marines Task Unit deployed in a certain area in the world to assist/operate within a large range of operations. It usually consists of 3 amphibious ships (including a helicopter carrier), and embarked forces: a battalion size infantry unit and other supporting elements like Combat Support and Combat Service Support. These include heavy armour (Abraham M1 battle tank), artillery, armoured fighting vehicles (AFV’s), helicopters and jet fighters (Harrier).

**Expeditionary Operation**: The projection of military power over extended lines of communications into a distant operational area to accomplish a specific objective (AAP-6).

**Maritime Operation**: An action performed by forces on, under, or over the sea to gain or exploit control of the sea or to deny its use to the enemy (AAP-6).

**Maritime Prepositioning Force** consists of 13 Maritime Prepositioning Ships (MPS) that are organized in 3 Squadrons. Each MPS Squadron carries sufficient equipment and supplies to sustain 17,000 Marine Corps Air Ground Task Force personnel for up to 30 days.

**NATO Joint Sea-based Logistic Support (NJSLS)** is the joint scalable use of seaborne platforms to provide logistic sea-based support to an expeditionary operation (approved by NATO Logistic Committee, April 2010).

**Seabasing** (USA)\(^{23}\) is the rapid deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the Joint Operations Area (JOA). These capabilities expand operational manoeuvre options, and facilitate assured access and entry from the sea.

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\(^{23}\) U.S. Fleet Forces Command, 12 Feb 2010.
**ANNEX 3: ACRONYMS**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>AAP</td>
<td>Allied Administrative Publication</td>
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<tr>
<td>AFOB</td>
<td>Afloat Forward Operating Base</td>
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<td>APS</td>
<td>Africa Partnership Station</td>
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<tr>
<td>C2</td>
<td>Command and Control</td>
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<tr>
<td>CJOS COE</td>
<td>Combined Joint Operations from the Sea Centre of Excellence</td>
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<tr>
<td>CTF</td>
<td>Combined Task Force</td>
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<tr>
<td>CTG</td>
<td>Combined Task Group</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>EUNAVFOR</td>
<td>European Union Naval Force</td>
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<tr>
<td>HADR</td>
<td>Humanitarian Aid and Disaster Relief</td>
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<tr>
<td>JSS</td>
<td>Joint Support Ship</td>
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<tr>
<td>LCAC</td>
<td>Landing Craft Air Cushion</td>
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<td>LCU</td>
<td>Landing Craft Utility</td>
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<td>LCVP</td>
<td>Landing Craft Vehicle Personnel</td>
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<td>LPD</td>
<td>Landing Platform Dock</td>
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<td>MCP</td>
<td>Maritime Counter Piracy</td>
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<td>MIO</td>
<td>Maritime Interdiction Operations</td>
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<tr>
<td>MPS</td>
<td>Maritime Prepositioning Ship</td>
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<tr>
<td>MSC</td>
<td>Military Sealift Command (U.S. Navy)</td>
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<tr>
<td>NATO</td>
<td>North Atlantic Treaty Organization</td>
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<tr>
<td>NEO</td>
<td>Non-combatant Evacuation Operation</td>
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<tr>
<td>NJLSLS</td>
<td>NATO Joint Sea-based Logistic Support Concept</td>
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<td>NRF</td>
<td>NATO Response Force</td>
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<tr>
<td>RHIB</td>
<td>Rigid Hull Inflatable Boat</td>
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<tr>
<td>SNF</td>
<td>Standing Naval Force (NATO)</td>
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<tr>
<td>SNMCMCG</td>
<td>Standing NRF Mine Counter Measures Group (NATO)</td>
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<tr>
<td>SNMG</td>
<td>Standing NRF Maritime Group (NATO)</td>
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<tr>
<td>STOM</td>
<td>Ship to Objective Manoeuvre</td>
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<td>TF</td>
<td>Task Force</td>
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<td>TG</td>
<td>Task Group</td>
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<tr>
<td>UN</td>
<td>United Nations</td>
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<td>UNMIL</td>
<td>United Nations Mission in Liberia</td>
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<td>WEU</td>
<td>Western European Union</td>
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<td>WFP</td>
<td>World Food Program</td>
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