



NATO at Sea: Trends in Allied Naval Power

By Bryan McGrath

Despite the North Atlantic Treaty Organization (NATO) taking its name from the ocean that ties Canada and the United States to their European allies, for most of NATO's history the alliance focused primarily on land power. However, with continental Europe at peace, the drawdown in Afghanistan, the rise of general unrest in North Africa and the Levant, and the American intent to pivot toward Asia, questions are increasingly arising about the capabilities of NATO's European navies to project power and sustain operations around their eastern and southern maritime flanks. These questions have grown even more urgent in the wake of those same navies' uneven performance in the 2011 military campaign against Muammar Gaddafi's Libya. Examining the major navies of America's European allies reveals a general desire, with the exception of Germany, to maintain a broad spectrum of naval capabilities, including carriers, submarines, and surface combatants. But given the significant reduction in each country's overall defense budget, procuring new, sophisticated naval platforms has come at the cost of rapidly shrinking fleet sizes, leaving some to wonder whether what is driving the decision to sustain a broad but thin naval fleet capability is as much national pride as it is alliance strategy.

This is the fifth National Security Outlook in a series about the defense capabilities of America's allies and security partners.¹

Taking its name from one of the world's great oceans, the North Atlantic Treaty Organization (NATO) has throughout its history been a military alliance focused primarily on land. Although several of its members have built and maintained first-rate navies, seapower served largely as a flanking force for what was envisioned as the main Cold War battle on the central front. After the fall of the Soviet Union, land conflict continued to be a primary emphasis of the alliance, first in dealing with the disintegration of Yugoslavia, and then as NATO assumed a central role in the Afghan conflict.

That said, naval power has historically been a defining feature of the alliance. While the United States provided a preponderance of alliance naval power, several allies—including the United Kingdom, France, Germany, Spain, and Italy—created

fleets capable of global power projection, and others chose to pursue niche capabilities to supplement the striking power of the larger fleets. This *Outlook* assesses the state of the former group.

Key points in this *Outlook*:

- NATO's intervention in Libya during the spring and summer of 2011 raised serious questions about the naval capabilities of America's European allies.
- Despite declining defense budgets, the major European naval powers have sought to retain a broad array of naval capabilities, resulting in modern but substantially smaller fleets.
- With US armed forces increasingly focused on the Asia-Pacific region, there are growing concerns as to whether the navies of America's continental allies are up to meeting the challenges arising from the general unrest on Europe's eastern and southern maritime flanks.

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It is a propitious time to review NATO's naval capabilities. Continental Europe is at peace. The only trouble has been on NATO's eastern and southern maritime flanks. Unrest throughout North Africa and the Levant raises the very real possibility that NATO's European nations will have to shoulder a larger share of a growing maritime security burden than they have been accustomed to or have been preparing for. The largest naval force contributor to the alliance—the United States—is increasingly focusing its attention on the Pacific, and it has not routinely operated large naval task forces in the Mediterranean for decades. The 2011 military intervention in Libya and recent discussions about possible intervention in the Syrian civil war raise questions about NATO's ability to project naval power effectively, especially without the full participation of the US Navy.

Several trends are evident among the major NATO navies. First, they are getting smaller. All of the navies analyzed here have fewer ships today than in the year 2000—in some cases, significantly fewer. And while ship counts do not tell the entire story of a nation's naval might (especially in the age of networked operations), they remain a useful proxy for naval capability, especially with respect to blue-water operations far from home waters. The primary reason these navies are getting smaller is a decline in general defense spending, including shipbuilding.

Second, the ships that are being built are increasingly capable and sophisticated—and therefore expensive—which serves only to drive down fleet size in an era of fiscal restraint.

Third, historically maritime nations seem to desire to retain broad, general purpose fleets even if it means smaller fleets overall. For example, the once-mighty UK Royal Navy is planning for a surface fleet of only 19 major surface combatants while moving forward on construction of two aircraft carriers and a replacement submarine class for its aging strategic deterrent, both of which consume considerable shipbuilding resources.²

Operation Unified Protector

The controversy over the participation of major NATO partners in the Libyan intervention has encompassed operational effectiveness as well as political will. The contributions of the five major allies surveyed in this *Outlook* vary widely. Britain and France proved both highly capable and highly committed, while Italy, Spain, and

Germany provided, respectively, partial, minimal, and nonoperational support.

NATO's reliance on the United States from March to October 2011 to carry out the allied mission—despite President Obama's admonition that the United States would not take the lead in the military operation—is the result of two distinct causes: NATO-wide underinvestment in military capability and a lack of political will on the part of uniquely capable countries. Capability is absent in some areas; in others, it is unevenly distributed. When key platforms were present and fielded, they were often numerically too few.

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The case of the *Charles de Gaulle* demonstrates that numbers matter. France's aircraft carrier, the only non-US Catapult Assisted Take-Off but Arrested Recovery (CATOBAR) carrier in Europe, accounted for 33 percent of allied-strike sorties by its withdrawal in August 2011.³ The endurance of even the largest ships is limited, however, by crew fatigue and maintenance requirements.⁴ When Italy, citing austerity measures, withdrew its carrier, the *Giuseppe Garibaldi*, from the Libyan operation, only amphibious ships and short take-off and vertical landing (STOVL) carriers remained to replace the *de Gaulle*.⁵ And, indeed, extended global deployments preceding those to Libya taxed even the endurance of US amphibious warships, which departed before *de Gaulle* and *Garibaldi*.⁶ The remaining large-deck ships—the French landing platform dock (LPD) *Tonnerre* and the British vessels *Albion* and *Ocean*—supported only attack helicopters.⁷ Lack of available land-based aircraft would have resulted in significantly slower operations.

Operation Unified Protector, the NATO name given to the Libyan campaign, cannot be considered a stressing scenario for NATO's naval and air forces. Targets were located primarily along Libya's coast, well within the range of land-based aircraft. The enemy was entirely unprepared for NATO intervention.⁸ The strategic

geography of the Libyan civil war greatly facilitated intervention. To attack rebel-held areas, Muammar Gaddafi's forces often had to move across long stretches of flat, exposed, sparsely populated terrain. The weakness of Libyan air defenses permitted relatively rapid degradation, reducing requirements for specialized electronic attack aircraft.⁹ Future operational environments may lack these favorable characteristics. Conversely, Libya's operational strengths—for example, its air defenses' ability to leverage civilian networks to manage engagements—are likely to exist in the authoritarian areas where future NATO interventions are possible.¹⁰

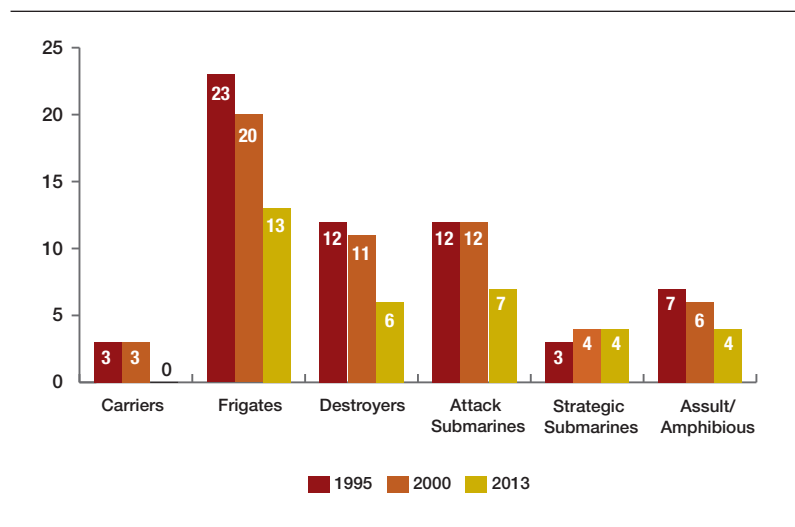
Some vital “niche” operational capabilities simply do not exist in sufficient numbers within NATO. The United States provided fully 80 percent of refueling support during the course of Unified Protector, spurring France, Germany, and the Netherlands to announce cooperative tanker purchases.¹¹ Standoff precision-strike firepower was also lacking. France's SCALP naval cruise missile was not ready in time for Libya.¹² A report in *The Telegraph* suggested the United Kingdom expended a high proportion of its limited stock of Tomahawk Land Attack Missiles (TLAMs) in the first days of the conflict.¹³ In contrast, by May 2011, two US destroyers and one nuclear-powered Ohio-class submarine launched 199 TLAMs, ultimately launching 220 weapons in the course of the operation.¹⁴ Similarly, the United Kingdom was short on advanced shorter-range munitions in some key categories.¹⁵

United Kingdom

The Royal Navy has dramatically declined in size by a third since 2000, but retains the desire and plans to remain a “balanced force” capable of naval airpower projection, limited amphibious operations, strategic nuclear deterrence, and sea control (see figure 1). This goal remains even in view of the 2010 UK *Strategic Defence and Security Review* (SDSR) 8 percent defense budget reduction.¹⁶

A key question, however, is whether a balanced force is ultimately in the strategic interests of the United Kingdom, or whether such a force should be abandoned in favor of a “cruising” navy requiring a greater number of frigates and destroyers and providing more naval presence

FIGURE 1
UNITED KINGDOM (TOTAL SHIPS BY CATEGORY)



Sources: International Institute for Strategic Studies, “Chapter Four: Europe,” *The Military Balance 2013* 113, no. 1, 89–198; International Institute for Strategic Studies, “NATO and Non-NATO Europe,” *The Military Balance 2000* 100, no.1, 35–108; and International Institute for Strategic Studies, “NATO,” *The Military Balance 1995* 95, no.1, 33–67.

in a greater number of places than the current fleet plan can accomplish. The costs associated with fielding two aircraft carriers and the air assets necessary to equip them, in addition to the costs of replacing the current fleet of ballistic missile submarines (SSBNs) with four new boats, will strain resources required for building surface combatants and attack submarines.¹⁷ Considering the United Kingdom's global economic interests and its desire to remain closely aligned with the US Navy, a force of less than 20 combatants might not suffice.

Upgrades to the Royal Navy will include fielding two new aircraft carriers carrying the F-35 Lightning II and the ongoing operation of the new, technologically advanced Type 45 destroyers.¹⁸ Other upgrades include the continuing introduction of the five nuclear-powered, Astute Class attack submarines and the construction of the Type 26 Global Combat Ships.¹⁹ Here as elsewhere in major NATO navies, numbers are being traded for capability.

When assessed against the roles articulated in the NATO *Alliance Maritime Strategy of 2011*—which includes deterrence and defense, crisis management, cooperative security, and maritime security—the Royal Navy presents a mixed story.²⁰ Continuing to move forward with both an aircraft carrier development program and a ballistic missile submarine program demonstrates national resolve to contribute to collective conventional and nuclear deterrence. However, the resources necessary to achieve these goals are to some degree harvested from

savings gained from a significantly smaller escort and combatant fleet.

And while the Type 45 destroyer is more capable than the Type 42s it replaces, there will be fewer of Type 45s, as there will be fewer Type 26 frigates to replace the Type 23s. This numerical decline creates presence deficits that impact the navy’s ability to perform crucial traditional naval missions such as antisubmarine warfare (ASW) and antisurface warfare (ASUW), which underpin both conventional deterrence and cooperative and maritime security. Adding to a decline in traditional sea-control capabilities was the 2010 SDSR decision to eliminate the Nimrod maritime patrol aircraft from the inventory.

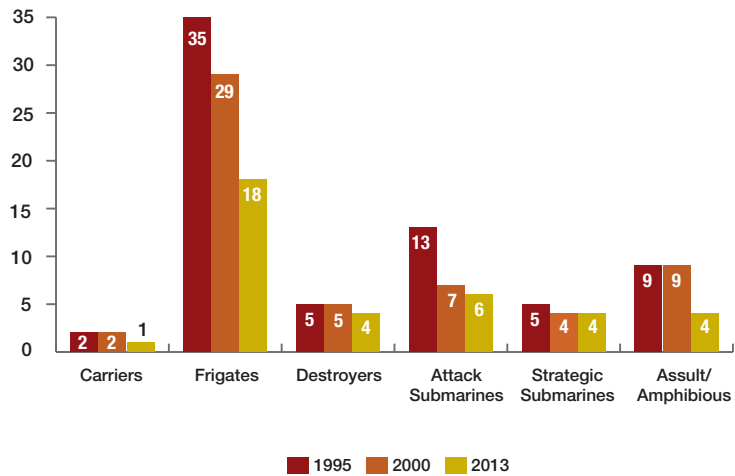
In summary, the Royal Navy continues to maintain a balanced fleet, one that looks strikingly like the US Navy, except a fraction of its size. Its contributions on the high end of the naval warfare operational spectrum (strategic deterrence, attack submarines, and anti-aircraft warfare (AAW) destroyers) are notable, while a declining number of surface combatants will bedevil its ability to remain globally postured and will contribute to naval missions of a more constabulary nature.

France

French defense policy in the post-Cold War era has tended toward greater equity among its armed services, what one analyst called the “gradual equalization” between French ground power and air and naval power.²¹ Nevertheless, the overall downward trend in fleet size is clear (see figure 2). In 2001, Admiral Jean-Louis Battet, chief of staff of the French Navy, identified a “2015 model” for the navy with a target fleet of 80 warships; the current trajectory is far more limited.²²

Generally, the French Navy is currently faring better than land or air forces, but the declining share of French wealth spent on national defense—2.8 percent of gross domestic product (GDP) in 2008 and 1.76 percent in 2013—has inevitably impacted the fleet. And while the “main battery” of the French Navy—its aircraft carrier and 10 submarines—remain untouched, France’s surface fleet will lose three destroyers and one amphibious ship. If there is any good news on this front, it is that France’s 2008 defense white paper called for deeper cuts in fleet

FIGURE 2
FRANCE (TOTAL SHIPS BY CATEGORY)



Sources: International Institute for Strategic Studies, “Chapter Four: Europe,” *The Military Balance 2013* 113, no. 1, 89–198; International Institute for Strategic Studies, “NATO and Non-NATO Europe,” *The Military Balance 2000* 100, no.1, 35–108; and International Institute for Strategic Studies, “NATO,” *The Military Balance 1995* 95, no.1, 33–67.

size and, unlike the Royal Navy, the French Navy will not face in the near term the budgetary pressure of having to replace its relatively new SSBN force of four boats.

Although the French fleet is shrinking, its international responsibilities remain. The 2013 white paper defined French geographic interests as “the European periphery, the Mediterranean area, a part of Africa—from Sahel to Equatorial Africa—the Persian Gulf and the Indian Ocean.”²³ This perceived gap between strategic vision and actual capabilities has led some analysts to suggest that congruence between British and French interests, as well as a desire to control procurement costs and improve coalition interoperability, is driving France toward increasing cooperation with the United Kingdom.²⁴

The 1998 Anglo-French Saint Malo declaration announced the beginning of heightened cooperation.²⁵ Attempts to establish effective cooperation on aircraft-carrier procurement and operations consumed much of the last decade. By 2007, an Anglo-French consortium looked to build three carriers for purchase by the two governments to maximize interoperability, but this plan did not come to fruition. Rumors that the two countries would actually share individual warships were again raised but quickly deflated in 2010.²⁶

In contrast to the United Kingdom, which has primarily exported major warships and aircraft as second-hand articles to close British Commonwealth allies, France’s

defense industry competes actively to sell major platforms in the global market. The state-owned shipbuilder DCNS is set to deliver six Scorpène-class diesel-electric submarines to the Indian Navy starting in 2015.²⁷ The Indian order supplements two each already delivered to the Malaysian and Chilean navies.²⁸

Additionally, France's DCNS shipbuilder and Italy's Fincantieri have been cooperating on the multimission frigate (FREMM) program. (France was at one point planning to build 19 of these ships, but cuts in the ensuing years have dropped the buy to only 8.²⁹) This industrial capacity augurs well for France, regardless of whether it increases the size of its navy, as international sales will protect a minimum level of shipbuilding capacity that is increasingly at risk in the United Kingdom.

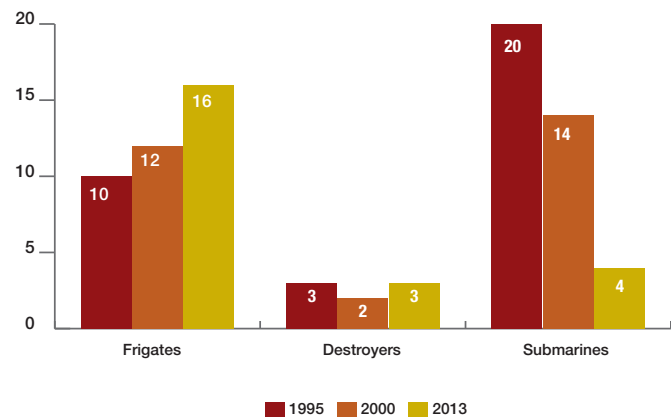
With respect to NATO's stated maritime roles, the French Navy punches at a weight similar to the Royal Navy, though the French Navy's capacity for sea-control missions is somewhat better because of the numbers and age of its surface escort ships. Additionally, the French Navy's amphibious capabilities resident in its three Mistral-class LHD's and its one Foudre-class LPD provide a limited capacity for crisis response and humanitarian intervention. France's blue-water power-projection capability gives it the option of projecting power far from home waters, something the Royal Navy appears very much to desire as it proceeds to build its two Queen Elizabeth-class carriers.

Essentially, the Royal Navy and the French Navy are roughly equally sized and structured. Yet to many observers, the Royal Navy is in distress and the French Navy sails in relatively calmer waters. This stems at least in part from the pressure of history and the place of the Royal Navy in the hearts of average Englishmen.

Germany

Unlike the Royal Navy and French Navy, Germany lacks a history and culture (since World War II) of a "balanced" fleet capable of the full range of modern naval operations. With no carrier or amphibious fleet to speak of, and without a sea-based nuclear deterrent, the German Navy has historically focused on sea-control missions centered around ASW, ASUW, and maritime security. And while the number of ships devoted to these missions has fallen from 28 to 23 since 2000, the most precipitous decline has

FIGURE 3
GERMANY (TOTAL SHIPS BY CATEGORY)



Sources: International Institute for Strategic Studies, "Chapter Four: Europe," *The Military Balance 2013* 113, no. 1, 89–198; International Institute for Strategic Studies, "NATO and Non-NATO Europe," *The Military Balance 2000* 100, no.1, 35–108; and International Institute for Strategic Studies, "NATO," *The Military Balance 1995* 95, no.1, 33–67.

occurred within the submarine force, with older submarines having been replaced by four more-sophisticated submarines (Type 212As), and with two on order. (See figure 3.)

Vice Admiral Axel Schimpf, chief of staff of the navy, wrote in 2011 that Germany's armed forces in general, and the navy in particular, are favoring "width over depth" (or capability over capacity).³⁰ For the navy, which retained a greater share of its force structure than the other services as a result of recent budget cuts, this has meant continuing to build sophisticated air-independent propulsion diesel attack submarines for both domestic and international sale while maintaining a force of frigates and destroyers for blue-water operations focused mainly on ASUW and ASW. In fact, one reason the surface fleet appears to be maintained in the numbers it has been stems from the aggregate loss in ASUW power because of the smaller submarine force.

On the high end of the operational spectrum, the three F124 Sachsen-class AAW destroyers are equipped with the Evolved SeaSparrow Missile, an antiship defense missile, and the Standard Missile-3 Block IIA for point and area air defense. Of note, these ships integrate an Active Phased Array Radar with search and missile guidance capabilities, providing protection against both advanced aircraft and cruise missiles with reduced radar cross sections. When operating out of area, the German Navy will likely deploy an F124 to provide air and missile defense to other less-capable German surface combatants.

An interesting development in Germany has been the debate surrounding planning for the “common” procurement of a Joint Support Ship (JSS). According to Vice Admiral Schimpf, such a ship (akin to a US LPD) would have several missions, including military evacuation operations, humanitarian aid from the sea, conduct of land operations from the sea, special forces employments, and “ensured military maritime deployability.”³¹ Currently two are planned, but they have not been funded because of debate over the cost to be allotted to Germany’s army and air force.

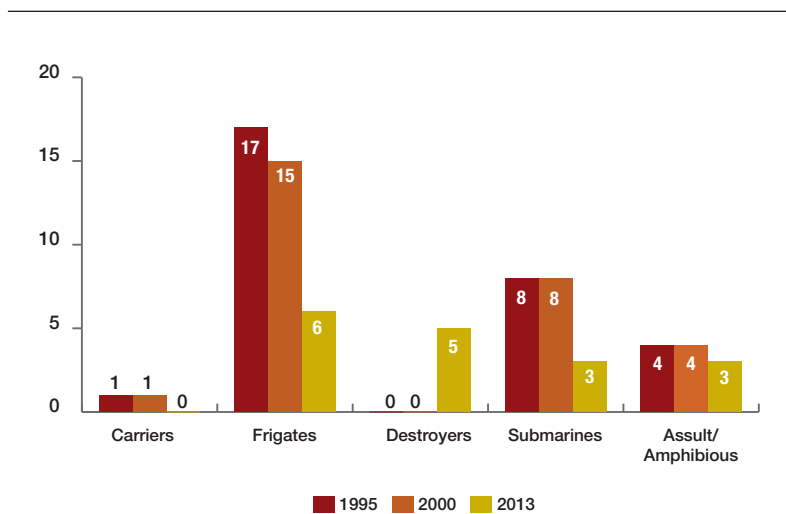
The German Navy’s contributions to NATO’s maritime roles fall mainly within the lower end of the operational spectrum. Germany’s cruising navy provides little in the way of power projection but, for out-of-area operations, the fleet adds to alliance maritime security and cooperative security, and, though the sea-control capabilities resident in these platforms, it can contribute to collective defense. Should Germany proceed with the JSS, it would have greater capacity to engage in maritime humanitarian assistance operations and to marginally increase its ability to project power.

The Germany Navy—unlike the Royal and French Navies—does not have a desire to be a balanced force capable of significant power projection, amphibious operations, and strategic deterrence. As its aims have been historically more modest, they have been more capable of being supported. And to the extent that Germany continues to support NATO maritime operations of a largely constabulary nature, Germany’s contributions to NATO remain consistent. The interesting question is not whether the navy supports Germany’s worldview and view of itself; it is whether a nation as powerful, rich, and networked as Germany is underinvesting in naval power while free-riding on the backs of US, UK, and French naval capabilities to a greater extent than other European nations.

Spain

Spain appeared in the last decade to be a nation putting its best defense (and naval) foot forward. With a moderately rising defense budget in the first half of the decade and a number of international shipbuilding partnerships

FIGURE 4
SPAIN (TOTAL SHIPS BY CATEGORY)



Sources: International Institute for Strategic Studies, “Chapter Four: Europe,” *The Military Balance 2013* 113, no. 1, 89–198; International Institute for Strategic Studies, “NATO and Non-NATO Europe,” *The Military Balance 2000* 100, no.1, 35–108; and International Institute for Strategic Studies, “NATO,” *The Military Balance 1995* 95, no.1, 33–67.

underway, the Spanish Navy was quantitatively and qualitatively improving. This progress was halted by the global economic crisis that has caused Spain to cut defense spending three times since 2008: by 3 percent in 2009, by 6.2 percent in 2010, and by nearly 17.6 percent in 2012.³² Interestingly, Spain has not announced any plan to reduce commitments, missions, or capabilities, deciding instead to go the route of other European nations, which is to favor cuts in capacity rather than capability.³³

The financial crisis–induced cuts were made to a budget that was already one of the worst within NATO in terms of meeting the 2 percent-of-GDP defense-spending goal agreed to by NATO members in 2002. In 2010, Spain spent just 0.72 percent of its GDP on defense, with no year in the previous five even coming close to approaching 1 percent.³⁴

Spain has sought a balanced navy, operating a flagship aircraft carrier (*Príncipe de Asturias*), five AEGIS-enabled guided missile destroyers (DDGs) of the Álvaro de Bazan class, six frigates of the Santa Maria class—a Spanish version of the US Navy’s FFG-7-class guided missile frigates—and four Galerna-class diesel submarines, in addition to three principal amphibious ships (see figure 4).³⁵

Spain’s shipbuilding industry has competed strongly on the world market, cooperating with France’s state-owned DCNS on the Scorpène submarine program, which morphed into Spain’s S-80 class, four of which remain under construction even in light of ongoing

defense cuts.³⁶ Additionally, Spanish ship-builders are constructing the second of two 27,000-ton Canberra-class LHD's for the Royal Australian Navy.³⁷

The primary threat to Spain's navy from ongoing budget woes is its inability to modernize and maintain fleet size. Insufficient funds in 2012 caused the navy to cannibalize one of its four Galerna-class submarines for parts to keep the other three boats operational.³⁸ Additionally, five vessels were decommissioned in 2012, and in early 2013, even the *Príncipe de Asturias* was decommissioned. The 2012 budget virtually eliminated spending for the majority of Spain's 19 major defense-wide procurement programs.³⁹

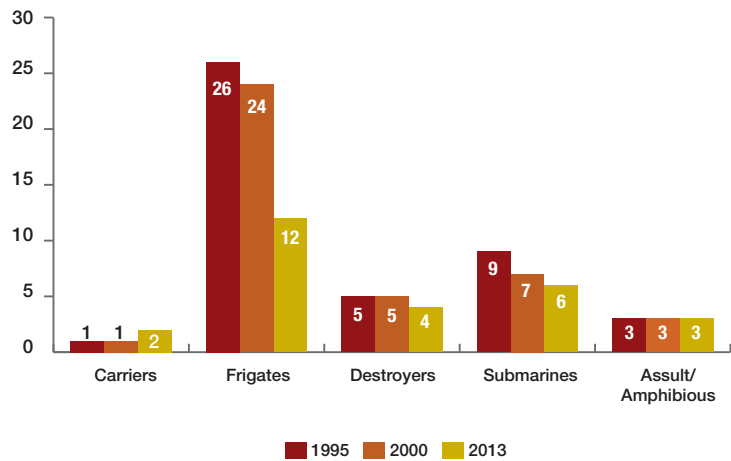
Spain's contributions to NATO's maritime roles, while not in the class of the United Kingdom or France, remain relatively strong in what is admittedly an increasingly weak field. The loss of its aircraft carrier and the decline in ship numbers essential to complex ASW and ASUW missions have been somewhat offset by the emergence of the five highly capable F100 destroyers equipped with the US AEGIS system featuring the SPY-1D radar. Additionally, Spain's modest amphibious capability contributes to both power projection and humanitarian missions.

Italy

Italy historically fields a balanced fleet with aircraft carriers, diesel submarines, surface combatants, and amphibious ships. Without an undersea strategic deterrent, its navy resembles that of Spain, though somewhat larger and more powerful. Like the other navies surveyed, it is getting smaller. Its shrinking predates the global financial crisis, but financial restraints have clearly accelerated the condition.

The Italian Navy has a goal of allocating 50 percent of its budget to personnel costs; 25 percent to investment and procurement; and 25 percent to operations, maintenance and training. However, personnel costs have consumed upward of 70 percent of the budget in recent years, even as the navy strove to keep important acquisition programs going. This has inevitably squeezed the operations, maintenance, and training budget, which was allotted only 11.2 percent of the 2012 budget.⁴⁰

FIGURE 5
ITALY (TOTAL SHIPS BY CATEGORY)



Sources: International Institute for Strategic Studies, "Chapter Four: Europe," *The Military Balance 2013* 113, no. 1, 89–198; International Institute for Strategic Studies, "NATO and Non-NATO Europe," *The Military Balance 2000* 100, no.1, 35–108; and International Institute for Strategic Studies, "NATO," *The Military Balance 1995* 95, no.1, 33–67.

In May 2012, in testimony before parliament, the navy's chief of staff called the current force structure "unsustainable," announcing plans to retire 26 to 28 ships by 2017.⁴¹

Recent austerity measures have seen major purchases reduced or delayed. The head of Italy's navy stated that "funding issues" exist with the final two of the six frigates Italy has thus far ordered from the Franco-Italian FREMM program.⁴² Two more German U212A submarines will be purchased, but likely at the cost of retiring the Sauro-class boats, reducing the current submarine fleet from six to four.⁴³ Italy initially planned to purchase six Horizon-class AAW destroyers produced by an earlier joint venture with France, but by 2006 judged two sufficient for escort of its carriers or amphibious warships.⁴⁴

With respect to NATO maritime roles, Italy, like the United Kingdom, has favored power projection over sea control. This is plain from Italy's current order of battle, which features an aging and shrinking frigate force (see figure 5). The FREMM program appears designed to bring additional balance to the fleet by increasing sea-control capabilities. The navy's chief of staff has reiterated the service's strong desire for 10 FREMM ships, while admitting that Italy's shaky finances threaten this goal.⁴⁵

With respect to higher-end missions including air and missile defense, the new Andrea Doria-class destroyers are a formidable escort with capabilities tested against advanced cruise-missile targets. However, they number

only two. When the Durand de la Penne class retires its medium-range surface-to-air missiles in “five to six years,” Italy will be left with only two effective anti-air escorts.⁴⁶

The United States must come to grips with the likelihood that even with its navy declining in size, over time, it will comprise an increasing percentage of alliance striking power.

The Italian Navy is headed in the same direction as the United Kingdom, France, and Spain: it will have a technologically advanced naval force structure that is balanced among power projection, amphibious operations, and classic sea-control missions but that is dramatically smaller than its year 2000 predecessor.⁴⁷ Like other NATO navies, Italy believes the prudent path is to keep the basic architecture for a fleet with global influence while procuring ships in numbers that raise doubt as to how influential such a navy could be.

Where Stands NATO?

The major navies of the NATO alliance (including the US Navy) have much in common. With the exception of Germany, the focus remains on having a “balanced fleet” capable of the spectrum of naval operations from cooperative security through war at sea and power projection. And, of course, France and the United Kingdom continue to maintain a strategic nuclear deterrent through ballistic missile submarines.

It is not inconceivable that in the near future (early 2020s), only the United States, France, and the United Kingdom will routinely operate aircraft carriers within NATO, with the United Kingdom’s program seemingly always on the edge of the budgetary chopping block. The difficulty NATO had in waging air surveillance and strike from the sea during the Libya operation, without a US carrier, is likely to be exacerbated. But even if the United Kingdom and France continue to operate carriers, the likely cost will be reduced global presence in maritime security and constabulary missions that require a larger fleet of blue-water surface combatants. Those countries are likely to be willing to pay that price, as the ability to contribute carrier-striking power to US-led operations—NATO and

otherwise—continues to provide a sine qua non of naval relevance.

The desire to maintain a balanced fleet—irrespective of its size—cannot help but raise the question of whether what is driving these decisions is as much about national pride as national or alliance strategy. Certainly, eliminating either their aircraft carriers or their ballistic missile submarines would free up funds for an expanded French or British fleet of surface combatants.

Moreover, China’s naval renaissance impacts NATO nations’ force-structure decisions. As the United States turns more of its interest to the Pacific, baseline security requirements in the Mediterranean will become more important to Europe’s NATO navies, perhaps creating greater incentive to resource them. Additionally, both France and the United Kingdom see themselves as global nations with global interests that extend far into the Pacific. If these nations perceive China’s rise as threatening these interests, they will likely find their navies too small to provide any real impact, given the great distances involved and the paucity of ships to maintain constant presence. There is a real tension between global presence and a “balanced fleet,” one that currently only the United States is able to resolve, and barely at that.

The United States must come to grips with the likelihood that even with its navy declining in size, over time, it will comprise an increasing percentage of alliance striking power. The 2007 maritime strategy designated the Indian Ocean and Persian Gulf as well as the Western Pacific as the US Navy’s two major operational hubs, recognizing in print what had been practiced operationally since the first Gulf War. This posture leaves the Mediterranean routinely without carrier or amphibious striking power, something that was evident in the early days of the Libya campaign. With European carrier-striking power likely to wane, the United States will find itself trying to stretch its 11-carrier fleet across three operational hubs, something it did in the 1980s with 15 carriers. And while 11 aircraft carriers are currently written into public law as the minimum number the Navy must maintain, Congress can even change that if it sees fit.

Absent a crisis or a threat that manifests itself in large part as a naval threat, Europe is unlikely to return to large, balanced fleets. Once lost, however, it could take decades to rebuild naval force structure because of the capital-intensive nature of shipbuilding and the time it takes to build sophisticated, modern warships in an increasingly small number of capable shipyards. NATO members should be wary about continuing declines in

force structure. And while current efforts to coordinate militaries (“pooling and sharing”) may on the surface seem beneficial, care must be taken that such efforts are not simply window dressing for further decline.

Notes

1. To read the other four *Outlooks* in this series, see Andrew Shearer, “Australian Defense in the Era of Austerity: Mind the Expectation Gap,” *AEI National Security Outlook* (August 2013), www.aei.org/outlook/foreign-and-defense-policy/defense/australian-defense-in-the-era-of-austerity-mind-the-expectation-gap/; Marcial Hernandez, “Dutch Hard Power: Choosing Decline,” *AEI National Security Outlook* (April 2013), www.aei.org/outlook/foreign-and-defense-policy/regional/europe/dutch-hard-power-choosing-decline/; Gary J. Schmitt, “Italian Hard Power: Ambitions and Fiscal Realities,” *AEI National Security Outlook* (October 2012), www.aei.org/outlook/foreign-and-defense-policy/regional/europe/italian-hard-power-ambitions-and-fiscal-realities/; and Patrick Keller, “Challenges for European Defense Budgets after the Economic Crisis,” *AEI National Security Outlook* (July 2011), www.aei.org/outlook/foreignand-defense-policy/regional/europe/challenges-for-european-defensebudgets-after-the-economic-crisis-outlook/.

2. Compare this number with two authoritative ship counts bracketing the Falkland Islands conflict, in which the Royal Navy fielded 67 combatants in 1980 and 56 in 1985. See Gavin Berman, *Defence Statistics 2000: Research Paper 00/99* (London, UK: House of Commons Library, December 21, 2000), www.parliament.uk/briefing-papers/RP00-99.

3. Jorge Benitez, *National Comparison of Strike Sorties in Libya* (NATO Source, Atlantic Council of the United States, August 22, 2012), www.acus.org/natosource/national-composition-nato-strike-sorties-libya; and “France to Withdraw Aircraft Carrier From Libya Ops,” *Agence France-Presse*, August 4, 2011, www.defensenews.com/article/20110804/DEFSECT03/108040307/France-Withdraw-Aircraft-Carrier-From-Libya-Ops.

4. For quantitative analysis of maintenance cycles and alternatives to the US Nimitz class, see Roland J. Yardley et al., *Increasing Aircraft Carrier Forward Presence: Changing the Length of the Deployment Cycle* (RAND Corporation, 2008), www.rand.org/content/dam/rand/pubs/monographs/2008/RAND_MG706.pdf.

5. The STOVL carriers remaining were Britain’s landing platform dock (LPD) *H.M.S. Albion* and the landing platform helicopter (LPH) *H.M.S. Ocean*, alongside the French LPD *Tomere*, the US Wasp-class LHDs *Kearsarge* and *Bataan*, and the San Antonio-class *Mesa Verde*. See “Italy Removes Aircraft Carrier from Libya Campaign,” *Agence France-Presse*, July 7, 2011, www.defensenews.com/article/20110707/DEFSECT05/107070311/Italy-Removes-Aircraft-Carrier-from-Libya-Campaign.

6. The *Mesa Verde* and the *Bataan* had already deployed in March. See William H. McMichael, “Bataan ARG Heads to Libya Duty in Med,” *Marine Corps Times*, March 23, 2011, www.marinecorpstimes.com/news/2011/03/navy-libya-bataan-arg-deploys-early-032311w/. By the time it returned from Libya in May 2011, *Kearsarge* had been deployed for nine months and continuously at sea for four months in support of Operation Unified Protector. See William H. McMichael, “Kearsarge Back from Extended Deployment,” *Navy Times*, May 16, 2011, www.navytimes.com/news/2011/05/navy-kearsarge-ready-group-home-051611w/.

7. The *Albion* (lead ship of its class) is 176 meters in length while the *Tomere* is 199 meters long. Both are around 21,000 tons and both are appreciably smaller than the 40,000-ton, 250-meter *Kearsarge* and *Bataan*. If deployment of STOVL aircraft is possible at all from these smaller ships, it would require substantial modifications.

8. For the regime’s pre-Civil War forces, see International Institute for Strategic Studies, “Chapter Five: Middle East and North Africa,” *The Military Balance* 110, no. 1, 262–63.

9. Craig Hoyle, “NEWS FOCUS: How ‘Odyssey Dawn’ Tamed Libya’s air Defences,” *Flightglobal*, March 28, 2011, www.flightglobal.com/news/articles/news-focus-how-odyssey-dawn-tamed-libyas-air-defences-354736/.

10. See Jeff Kassebaum, “The Art of SEAD: Lessons from Libya,” *Journal of Electronic Defense* 34, no. 12 (December 2011): 58–62.

11. “NATO Trio Team Up to Boost Air Refueling Capacity,” *Agence France-Presse*, April 18, 2012, www.defensenews.com/article/20120418/DEFREG01/304180013/NATO-Trio-Team-Up-Boost-Air-Refueling-Capacity.

12. The program was previously known as *Missile de Croisière Naval*. See Richard Scott, “MBDA Completes First Scalp Naval Test-Firing,” *Jane’s International Defence Review*, June 17, 2010.

13. Thomas Harding, “Libya: Navy Running short of Tomahawk Missiles,” *The Telegraph*, March 23, 2011, www.telegraph.co.uk/news/worldnews/africaandindianocean/libya/8400079/Libya-Navy-running-short-of-Tomahawk-missiles.html. Harding’s figure of 12 missiles is corroborated in Jeremiah Gertler, *Operation Odyssey Dawn (Libya): Background and Issues for Congress* (Washington, DC: Congressional Research Service, March 30, 2011), 18, www.fas.org/sgp/crs/natsec/R41725.pdf.

14. Norman Polmar, “The Latest Conflict,” *Proceedings of the U.S. Naval Institute* 137, no. 5 (May 2011): 166–67; and “Navy Replenishing Tomahawk Stockpile Used in Libya,” *Defense Daily International*, June 14, 2012.

15. British analysts felt the Royal Air Force’s supply of dual-mode seeker-equipped Brimstone and Paveway IV air-to-ground weapons needed restocking during or shortly after the end of operations. See *Lessons Offered From the Libya Campaign* (London, UK: Royal

Aeronautical Society, 2012), 4, <http://aerosociety.com/Assets/Docs/Publications/SpecialistPapers/LibyaSpecialistPaperFinal.pdf>; and "UK to Buy at Least 500 Paveway IVs To Restock after Libya," *Jane's Defence Weekly*, September 15, 2011. (Although it appears that the United Kingdom's supply of air-launched Storm Shadow cruise missiles appears to have been sufficient).

16. Nicholas Watt "Next Generation of Nimrod 'Spy In the Sky' Surveillance Planes To Be Scrapped," *The Guardian*, October 17, 2010, www.guardian.co.uk/uk/2010/oct/17/next-generation-nimrod-scrapped.

17. In response to questions about the costs associated with the SSBN programs, British Defense Secretary Philip Hammond insists that "The government remains 100% committed to maintaining and renewing the Trident system." See "U.S. Defense Chief Bashes Idea of Reducing SSBN Fleet," *Global Security Newswire*, July 15, 2013, www.nationaljournal.com/global-security-newswire/u-k-defense-chief-bashes-idea-of-reducing-ssbn-fleet-20130715.

18. The Type 45 is built primarily as an anti-air warfare (AAW) combatant capable of local and area fleet defense. Capable of controlling fighter aircraft, it can coordinate fleet AAW operations and should be considered roughly comparable to a US-guided missile destroyer. It is equipped with long-range weapon systems to intercept increasingly sophisticated and maneuverable missiles. The Type 45 destroyer will be able to operate an embarked helicopter.

19. Due to begin joining the fleet in 2021, the Type 26 frigates will completely replace the Type 23 frigates. The Type 26 is planned in three variants: an ASW variant, an AAW variant, and a general purpose variant.

20. North Atlantic Treaty Organization, "Alliance Maritime Strategy," March 18, 2011, www.nato.int/cps/en/natolive/official_texts_75615.htm.

21. Lutz Unterseher, *Europe's Armed Forces at the Millennium: A Case Study of Change in France, the United Kingdom, and Germany* (Washington, DC: Project on Defense Alternatives, 1999).

22. Jean-Louis Battet, "The French Navy in the Twenty-First Century," *NATO's Nations and Partners for Peace*, no. 3 (2001): 23–29.

23. Government of France, *Livre Blanc: La Défense et la Sécurité Nationale 2013* [White Paper: Defense and National Security — 2013] (Paris, France, 2013), 82, www.gouvernement.fr/sites/default/files/fichiers_joints/livre-blanc-sur-la-defense-et-la-securite-nationale_2013.pdf.

24. Ben Jones, *Franco-British Military Cooperation: A New Engine for European Defence?* (Paris, France: European Union Institute for Security Studies, February 2011), 13–17.

25. "Anglo-French Military Pact," BBC News, December 4, 1998, http://news.bbc.co.uk/2/hi/uk_news/politics/227598.stm.

26. Tim Fish, "Anglo-French Carrier Co-operation Moves Forward," *Jane's Navy International*, November 16, 2007; and Dave

Clark, "France, Britain: No Plans to Share Aircraft Carriers," *Agence France-Presse*, September 3, 2010, www.defensenews.com/apps/pbcs.dll/article?AID=20109030305.

27. The project has not been without political trouble. See Vivek Raghuvanshi, "Indian Minister Rejects Charges Connected with Sub Deal," *Defense News*, July 19, 2012, www.defensenews.com/apps/pbcs.dll/article?AID=2012306190001.

28. "SSK Scorpene Class Attack Submarine, France," *Naval Technology*, www.naval-technology.com/projects/scorpenes/; and "DCNS, Navantia Part Ways on Submarines," *United Press International*, November 15, 2010, www.upi.com/Business_News/Security-Industry/2010/11/15/DCNS-Navantia-part-ways-on-submarines/UPI-29901289850253/.

29. Jean-Dominique Merchet, "Marine : Ce Sera 8 Fremm au Lieu de 11: Le Nombre de Nouvelles Frégates Multimissions Sera Réduit" [Marine: It Will Be 8 FREMM Instead of 11: The Number of New Multimission Frigates Will Be Reduced], *Secret Defense*, www.marianne.net/blogsecretdefense/Marine-ce-sera-8-Fremm-au-lieu-de-11_a1028.html.

30. Axel Schimpf, "The German Navy of the Future," *European Security and Defence* 3–4 (2011): 7–12, www.europeansecurityanddefence.info/Ausgaben/2011/03+04_2011/03_Schimpf/ESD_3-4_2011,03.pdf.

31. Schimpf, "The German Navy of the Future," 12.

32. International Institute for Strategic Studies, "Chapter Four: Europe," *The Military Balance 2011* 111, no. 1, 144–47. See also, "Chapter Four: Europe," *The Military Balance 2013* 113, no. 1, 95.

33. Caroline Baxter et al., *NATO and the Challenges of Austerity* (Santa Monica, CA: RAND Corporation, 2012), 46.

34. *Ibid.*, 51

35. The *Príncipe de Asturias* was taken out of service in early 2013. See "El Príncipe de Asturias llega a Ferrol para su desarme" [The Príncipe de Asturias Arrives in Ferrol for Its Disarmament,] *El País*, February 8, 2013, http://ccaa.elpais.com/ccaa/2013/02/08/galicia/1360342099_511362.html.

36. Christina Mackenzie, "Spanish S-80 Subs Sailing Forward," *Aerospace Daily and Defense Report*, July 18, 2012. The S-80 class has had challenges in construction, including the first hull displacing more than 100 tons than was designed, which could impact the boat's ability to submerge and resurface. Additionally, there have been reports of problems in the boat's air-independent propulsion system. See "GD To Help Fix Spanish Navy's Overweight Issue of S-80 Submarine" *Naval Technology*, June 7, 2013, www.naval-technology.com/news/newsgd-to-help-fix-spanish-navy-overweight-issue-s80-submarine.

37. David Ing and Richard Scott, "Arrested Development: Austerity Stunts Spain's Naval Industrial Sector," *Jane's Navy International*, September 7, 2012.

38. “Durante este tiempo, las necesidades de mantenimiento de los buques han hecho que se empleen piezas del 'Siroco' en el resto de la flota de los S-70. Defensa admitió en su día que se iba a utilizar piezas del 'Siroco' para las carenas del 'Tramontana' y 'Galerna.’’ [During this time, the maintenance needs of the ships have required that parts from the 'Siroco' be used in the rest of the S-70 fleet. The ministry of defense admitted that it was going to use the parts for the hulls of the 'Tramontana' and 'Galerna.'] See Jose Alberto Gonzalez, “La Armada da de Baja el 'Siroco' y Centra Sus Esfuerzos en Los Submarines S-80” [The Navy Withdraws the 'Sirocco' and Focuses Its Efforts on the Submarine S-80], *La Verdad*, August 5, 2012, www.laverdad.es/murcia/v/20120508/cartagena/armada-baja-siroco-centra-20120508.html.

39. Pedro Arguelles, *Comparecencia Presupuestos 2012* [2012 Budgets Appearance] (testimony before the Spanish Congress of Deputies, April 17, 2012), <http://rojoygualda.files.wordpress.com/2012/04/secdef170412.pdf>.

40. Schmitt, “Italian Hard Power: Ambitions and Fiscal Realities,” 8.

41. Luca Peruzzi, “Cuts Loom for Italian Navy,” *Jane's Navy International*, June 11, 2012.

42. Luca Perruzzi, “Fincantieri Launches First Italy's FREMM Multi-Mission Frigate,” *European Security and Defense Press Association*, July 23, 2011, www.esdpa.org/2011/07/fincantieri-launches-first-italy%E2%80%99s-fremm-multi-mission-frigate/.

43. Luca Perruzzi, “Interview: Admiral Luigi Binelli Mantelli, Chief of the Italian Navy,” *Jane's International Defense Review*, March 16, 2012.

44. “DCN Launches Final Horizon,” *Jane's Navy International*, July 13, 2006.

45. Perruzzi, “Interview: Admiral Luigi Binelli Mantelli.”

46. *Ibid.*

47. One example of this desire to hold onto the trappings of a high-end navy is the recent decision by the Italian government to reduce its purchase of F-35Bs for the Italian Navy to 15 after the head of Italian naval aviation claimed that the minimum number of STOVL aircraft required was 22. See Tom Kington, “Italian Navy, AF Head for F-35 Showdown,” *Defense News*, May 15, 2012, www.defensenews.com/article/20120515/DEFREG01/305150010/Italian-AF-Navy-Head-F-35B-Showdown.